Major Project Outcome

S.No	Project Team ID	Shift	Roll Number and Name of Project Team Leader	Roll Number and Name (Team Member-2)	Roll Number and Name (Team Member-3)	Guide Name	Type of Project	Updated Project Title	Catagory	Project Abstract	PROJECT OUTCOME	List of Software Tools Used for Major Projects
1	CSE-I-01	First Shift	20614802718 HARSHIT GARG	20214802718 KSHEM SHARMA	43714802718 ROHAN AGGARWAL	Ms. KARUNA MIDDHA	Research Based	IMPLEMENTING THE EXTRACTIVE DISASTER TWEET SUMMARIZATION ALGORITHMS AND ANALYZING THEIR EFFICIENCY	Software Based Only	Social Media Websites, predominantly Twitter have become important sources for real-time situational information during emergency events like the entire country witnessed during the second wave of Covid-19 in our country. People turned to each other for help to arrange for beds, oxygen concentrators, etc. Since hundreds to thousands of microblogs or tweets are generally posted on Twitter during an emergency event, manually going through every tweet is not feasible. In such a scenario, it is critical to summarize the microblogs (tweets) and present informative summaries to the people who are attempting to respond to the disaste	We came to know about various algorithms that can be used to extract and summarize thousands of tweets and compare their efficiency. On the soft skills part, we learned to work in a team, managing time.	1. Python 2. Machine learning 3.API calls to fetch tweets related to a particular disaster
2	CSE-I-02	First Shift	35114807218 AYUSH TOMAR (YB)	35214807219 SAGAR SAINI	35114807219 SAURAV CHHIKARA	Mr. SAURABH RASTOGI	Research Based	Parkinson's Disease Detection Using Machine Learning	Software Based Only	Neurological illnesses, as Parkinson's Disease (PD), might be concentrated on utilizing biomarkers acquired from human discourse. PD is a dynamic neurodegenerative disease that effects around 1,000,000 individuals. Previously, clinicians have depended on abstract evaluating frameworks to check the seriousness of Parkinson's Disease. Challenges with engine control make it conceivable to distinguish and analyze PD through vocalization. Medical services experts could profit from less expensive and more precise determinations because of innovative progressions and the broad utilization of sound gathering gadgets in daily existence. We give proof to approve this idea here utilizing a voice dataset gathered from individuals with and without PD utilizing AI calculations: Choice Tree, Strategic Relapse, and Guileless Bayes and Profound Learning calculation like Intermittent Brain Organizations (RNN) by anticipating with precision rate and execution examination of all AI and Profound Learning calculations	Demonstrate the knowledge, skills and attitudes of a Software Engineer Undertake problem identification, formulation and solution Demonstrate a sound technical knowledge of parkinson detection apply the principles, tools and techniques to solve the problem using ML	Jupyter Notebook Python (Version 3.6) Seaborn Scikit-Learn Pandas Numpy
3	CSE-I-03	First Shift	45214802718 SWAPNIL	44414802718 RITVIK TREHAN	45114802718 LOKESH SINGH	Ms. KARUNA MIDDHA	Application Based	Crime Prediction	Software Based Only	*This project "Crime Prediction" is a major project designed as per the requirement for the accomplishment of the B.Tech major-project. It also gives you crime reports, calculates crime numbers for you and also finds you cases solved among different stations. This program uses different features of ML, right from simple mathematical calculations to extensive use of modular programming .	The work of crime analysis to detect specific patterns of crime committed. The idea to help various NGOs.	Python skikit-learn Jupiter ML algorithms
4	CSE-I-04	First Shift	40214802718 TARANG	01514802718 ANKIT	40314802718 ATISHEY JAIN	Ms. AKANKSHA KOCHHAR	Application Based	Mobile Operator Booking Platform.	Software Based Only	*Aadhaar has on boarded mobile operators to undertake enrolment and update of the residents demographics and biometric data. Our operators move from doorstep to doorstep to perform enrolment and update activity. Each of our operators is equipped with a Tab or mobile device to perform update and enrollment activity. Your task is to create a platform which will capture the current location of the operator and display on a map and refresh it at a defined interval. The platform supports the following:- Display the operator location on the map and refresh it Operator location to be shown only when he is logged to the platform and during his assigned working hours. Along with the location, additional attributes like free hour (slot) availability in the day must be shown. This information is to be used by the resident to book the operator for door step delivery of the Enrolment and update service. The platform must also provide means to call the appointment booking system of UIDAI to request services of the operator at an available time slot. The platform must also provide residents feedback for the operator. If the operator has already exhausted the slots or she/he has consumed his daily quota, further appointment booking should not be allowed. Her/His location may be shown in a different colour.*	A platform which will capture the current location of an Aadhar operator and display them on a map and refresh it at a defined interval. Display the operator location on the map and refresh it. Operator location to be shown only when he is logged to the platform and during his assigned working hours. Along with the location, additional attributes like free hour (slot) availability in the day are to be shown. This information is to be used by the resident to book the operator for door step delivery of the Enrolment and update service. The platform will also provide means to call the appointment booking system of UIDAI to request services of the operator at an available time slot. The platform must also provide residents feedback for the operator. If the operator has already exhausted the slots or she/he has consumed his daily quota, further appointment booking should not	Node.js: Node.js is a JavaScript runtime built on Chrome's V8 JavaScript engine. Node.js brings JavaScript to the server MongoDB: A document-based open source database Express: A Fast, unopinionated, minimalist web framework for Node.js React: A JavaScript front-end library for building user interfaces
5	CSE-I-05	First Shift	06114802718 MANAK BANSAL	06214802718 MANASWI	07414802718 PANKAJ KUMAR	Ms. GARIMA GUPTA	Research Based	Prediction of heart diseases	Software Based Only	This document explores the possibility of the prediction whether a person is susceptible to various heart diseases like Coronary Artery Disease (CAD), Heart Arrhythmias, Heart Failure, Heart Valve Disease, Pericardial Disease, Cardiomyopathy (Heart Muscle Disease), Congenital Heart Disease and many more which has put a great threat to human beings given how our lives and schedules are evolving into more sedentary ones with the advent of technologies originally made to make our lives easier. A passive lifestyle puts not only our heart at risk, but also is a direct cause of more physical and mental illnesses and diseases like osteoporosis, lipid disorders diabetes, and obesity, and increase the risks of colon cancer, high blood pressure, depression and anxiety. In this article, we have aimed to study the various different factors that may or may not be in direct correlation of heart diseases. These factors are as follows: Age, sex, chest pain type, resting blood pressure, cholesterol in mg/dl, fasting blood sugar, resting electrocardiography results, maximum heart rate achieved, exercise induced angina, ST depression induced by exercise, slope of the peak exercise ST segment, number of major vessels and maximum heart rate. We have also compared the correlation of these factors	Basic working of machine learning, understanding of relation between medical and Computer Science topics	Python, libraries, Google colab, Jupyter notebook

6	CSE-I-06	First Shift	09214802718 SAHIL KAKKAR	09014802718 SACHIN		Ms. KAVITA SAXENA	POC/Innovative idea	Impostor Detection using Behavioural Biometrics	Software Based Only	Everything is getting digitised today. This opens up plethora of opportunities for fraudsters to commit crime. As more and more people are using online services, the cyber criminals are also getting good at impersonating users and hacking their accounts. Increased pace of digitisation has brought increased risk of online theft and fraud. All industries, be it banking, retail or even education, are impacted by these threats. Enterprises are always looking for ways to protect their customers. Different ways of protection mechanism such as digital autogenerated passwords, fingerprint, or advanced techniques such as voice or facial recognition have been used. Unfortunately, they are, on the one hand, intrusive and on the other hand they do not provide continuous protection. The purpose of our project is to provide a bulletproof protection mechanism which does not invade the user's privacy. This will help prevent online fraud and cyber theft in a more sophisticated way. The scope of our work will be based on Fraud Detection but our approach can also be used to detect other things. We can potentially predict where the user is looking at the screen or if the user is under any sort of stress. The best part of this approach is that it can detect these things in a non-intrusive way. The user's privacy is never invaded	Providing a bulletproof protection mechanism which ensures security in an non-intrusive way by protecting user privacy simultaneously Building it in a way that it is easy to implement and scale Build a model capable of user identification and help in the authentication process Build a model that performs of impostor detection and fraud detection efficiently Preventing impersonation by fraudsters and alerting the system beforehand Detecting impostor just by analysing his/her mouse movements	Python, Reliability, numpy, pandas
7	CSE-I-07	First Shift	08914802718 ROSHAN KUMAR	08214802718 RISHABH SHARMA	08314802718 RISHAV KUMAR	Ms. KAVITA SAXENA	Research Based	health buddy	Software Based Only	Health buddy is a web based project related to health domain. In this project we are predicting if a person suffer from certain diseases or not using their medical reports. we have taken various diseases data like malaria , kidney diseases , cancer etc and analysed these data using machine learning and prepared models which is capable of prediction of diseases with high accuracy.	Learned about data preprocessing , data wrangling and collection of valid data. Learned about different machine learning algorithms like linear regression ,logistic regression , decision tree regression , KNN algorithm etc. Learned about different platforms like anaconda , jupyter notebook , tensorflow etc.	Pandas , Numpy , Matplotlib , Tensorflow , Seaborn , sci kit learn , Jupyter notebook , Python
8	CSE-I-08	First Shift	03414802718 DISHA SHARMA	04414802718 HARSHIT AGGARWAL	42314802718 ISHAN AGARWAL	Ms. GARIMA GUPTA	Research Based	Tagging stackoverflow questions using supervised machine learning techniques.	Software Based Only	Abstract: Tagging provides a convenient means to assign tokens of identification to research papers which facilitate recommendation, search and disposition process of research papers. This project will approach the auto-tagging of stackoverflow questing using supervised machine learning techniques. One of the major part of the study is to filter and preprocessing of the database to extract most relevant tags and keywords. The approach is based on extracting keywords using tfid weighted score and then apply supervised machine learning algorithms to train the machine learning model.	Team Learning : Made understanding on various new topics with multiple brain storming sessions to reach a conclusion. Team work and leadership decisions at the same time. Time management and bringing out the best resource possible.	Tools and Libraries used : Natural Language toolkit (nltk) Sklearn Matplotlib Seaborn Pytorch Bs4 Google Colab Kaggle
9	CSE-I-09	First Shift	45714802718 SHUBH BANSAL	09714802718 SHUBHAM AGGARWAL	44514802718 MUKUL TANEJA	Prof. NAMITA GUPTA	Application Based	End-to-End Encryption by Quantum Algorithms and Application in Areas of Security	Software Based Only	Data encryption is a way of translating data from plaintext (unencrypted) to ciphertext (encrypted). Users can access encrypted data with an encryption key and decrypted Few of the standard encryption algorithms: Advanced Encryption Standard (AES), Rivest-Shamir-Adleman (RSA) Encryption is a central problem for many applications in the field of information processing, including, e.g., cryptography, in classical and quantum regime, but also mathematical modeling. Both, the quality and efficiency of the encryption process are crucial for most of these applications. Classical encryption, though sufficiently secure, does not fulfill the required security and quality demands. Hence, the physical hardware methods are intensively developed for encryption for information processing and electronic security application. In the present paper we analyze and discuss the problem with Classical encryption and henceforth discuss the idea of secure	Getting familiar with standard Encryption & Cryptography techniques and models. Creating a Quantum Encryption Algorithm based on already going on research. Integration of different features such as our QRNG engine(Minor Project) in another project. Optimizing Quantum circuit to the best level and hence save a lot of computation power on quantum computers.	Python Qiskit Framework(For Quantum Computing) ReactJs(Frontend)
10	CSE-I-10	First Shift	00314807219 TUSHAR BAGHEL	01514807219 RAHUL RATUSARIA	01114807219 AYUSH CHANDER VANSHI	Ms. SUDHA NARANG	Research Based	Financial Analysis and Visualization	Software Based Only	This project is primarily based on the Data analysis and visualization. In today's world, if someone wants to be financially strong, it is very necessary to have a proper spending and saving habit. We can keep track of our habits but in order to generate proper outcomes from them is quite bothersome process, time consuming and, involves a lot of mathematical computation. Reading and understanding a lot of data is quite difficult but if we convert this data in form of visuals and show necessary key performance indicators(KPI's) it is quite easy for individual to form insights from that data and can make choices in the future accordingly. Therefore, in this project we will generate data of an individual on monthly basis consisting of their revenue, saving behavior and spending behavior. After proper cleaning and analyzing data, visuals in form of KPI's and graphs will be plotted and a dashboard for the same will be created	Create Dashboard of the analysis performed. To analyze the spending and saving pattern of an individual. Develop Literacy about finances. Provide discipline at early age to set financial goals. Compare the financial data of different months and years. To plan future finances. To show the power of Analytics and visualizations. To embed analytics in daily life.	Microsoft Excel is one of the most used software application in the world. Excel have the Powerful Tools and Functions, using it for wide verity of applications across the global IT Companies. It is easy to enter the data, read and manipulate the data. Excel stores the data in a table format in Rows and Columns. Microsoft Excel used for storing the data, processing the data, analyzing and presenting the data. • We can enter data in Strings, Dates or Numerical type of Data in the Excel Cells and Save the Files for future reference

11	CSE-I-11	First Shift	00614807219 JAGMOHAN RAI	00214807219 SATYAJIT SEN	00514807219 RISHABH KUMAR	Ms. NEETU GARG	Application Based	Shilpi	Software Based Only	The Indian handicraft and handloom industry engages over 23 million craftsmen. The third largest segment among the poor in India exclusively consists of artisans, weavers, and handicraft workers. During the COVID-19 lockdowns across the country, their products were deemed "non-essential", leading to most of them being out of work. It is also recognized that it is virtually impossible for the domestic artisans, weavers, and handicraft workers in India to compete with big corporations who can mass-produce products at a global scale. Since the COVID-19 pandemic has affected them the most, a requirement for a functional application platform to serve as an ecommerce portal for artisans, weavers, and handicraft workers was recognized. A cross-border e-commerce marketplace will allow buyers and sellers to meet at one platform for business. It shall also help in growing their business and the overall economy of the country.	Learnt to work together in a team. Gained some degree of proficiency in Flutter for front end software development. Gained some degree of proficiency in Firebase for back end software development. Gained some degree of proficiency in designing UIs.	Flutter, Firebase.
12	CSE-I-12	First Shift	01314807219 ANKIT KUMAR	01314802718 AMISHA SINGLA	10014802718 SURBHI TYAGI	Ms. GARIMA GUPTA	Research Based	DIABETES PREDICTION MODEL	Software Based Only	Diabetes is a disease which is rapidly increasing all over the world. It occurs when pancreas does not produce sufficient insulin, or body can not sufficiently use insulin it produces. Diabetes person has increase blood glucose in the body. One of the major problem diabetic patients suffers from is the Diabetic Retinopathy (DR) and blindness. Since the number of diabetes patients is continuously increasing, it increases the data as well. Hence to extract the useful information and unseen knowledge from the data, use of data mining (DM) techniques become necessary. DM plays an important role in DR as this can be beneficial for the better health of the society. There are many techniques and algorithms that help to diagnose DR in retinal fundus images. This survey presents survey of various classification techniques such as artificial neural network, support vector machine, naive bayes, decision tree, that have been used for diagnosis of diabetes. This will help to classify and compare the algorithms and techniques previously proposed in order to develop better and more effective algorithms.	In every real world problem, the first step to build a solution focused model is to perform an exploratory data analysis. This will estabilish the suitable model for the problem, which can be further used to tune up the performance and solve the problem efficiently. Exploratory data analysis for artificial neural network deals in playing with the hidden layers and activation functions. Advanced big-data problems, image based problems and many other complex problems arre now tackled with Convolution Neural Networks (CNN). Deep learning has been extensively used in many complex research problems, because of it's ability to gain insights from big data, skip the process of data feature extraction in many cases (CNN can work directly on the images, without any feature extraction). CNN in computer vision applications has another benefit of keeping the spatial property of the image intact, which can be very useful for many geometrical based computations and inference.	1. Python 3.6 2. Pandas 3. Numpy 4. Keras (backend on tensorflow) modules.
13	CSE-I-13	First Shift	40714802718 RAJAT KUMAR	41614802718 SAMBHAV JAIN	43814802718 HARISH DAGAR	Ms. MINI AGARWAL	Application Based	ProjectHUB	Software Based Only	If a common knowledge platform (with a facility for plagiarism) is created to bring all project works taken up at various levels by the students in Technical / Higher Educational Institutes and Universities throughout the country , then it will be a great source of knowledge and also will help the student community to take up unique/innovative project works.	1.) learned about creating full stack web application 2.) learned about working in a team 3.) learned about how various noteshub like apps are built 4.) learned about indepth knowledge of mern stack	vscode - insiders, postman , MERN stack
14	CSE-I-14	First Shift	44914802718 PIYUSH RATHI	20114802718 HARDIK SANGHI	06014802718 MADHUR	Mr. ANUPAM KUMAR	Research Based	Disease prediction using machine learning	Software Based Only	The world is moving fast and in order to catch up with the whole world, we tend to ignore the symptoms of illnesses that can have a significant impact on our health. Many working professionals suffer from heart attacks, bad cholesterol, and eye diseases and are too busy dealing with the evolving world to treat them in time. God has given each and every one a beautiful gift of life, and it is our responsibility to live our lives to the fullest and protect ourselves from the dangers of the world. Therefore, we use machine learning algorithms such as Decision Tree, Gradient Boost, Random Forest, and Naive Bayes to consider the symptoms that a person feels and use those symptoms to predict the diseases that a person may be suffering from. We have developed a regression model. It saves time and makes it easy to get alerts about your health before it's too late. This study aims to label the key flows between various types of supervised machine intelligence algorithms, and their conduct and habit for ailment risk prophecy. This important information on relative performance can be used to aid researchers in the selection of an appropriate supervised machine learning algorithm for their studies.	Supervised algorithms, writing documents, software development process	Vs code, terminal, python
15	CSE-I-15	First Shift	36614802718 TANYA GOEL	40914802718 GARIMA ARORA	20314802718 TANNU SHARMA	Ms. SHALLU JUNEJA	Research Based	Software Defect Detection using Machine Learning Classifiers	Software Based Only	Detecting software defects is an important part of software engineering. Defect detection means identifying modules that are prone to failure early in software development. It reduces time, effort, and overall costs. Detecting defects not only increases the organization's profit but also increases customer satisfaction significantly. Nowadays, machine learning techniques are mostly used in this field. Our proposed system includes the Gaussian Naive Bayes algorithm, K-Nearest Neighbor, Decision Tree, SVM algorithm, Multinomial Naive Bayes, Bagging Classifier, Random Forest Classifier, AdaBoost Classifier, Logistic Regression, and Multi-Layer Perceptron for defect detection. Using the accuracies obtained, the dataset will be defined in order to measure the defect estimation capability of various algorithms proposed.	For our Major project, we learned Python and its various libraries. This project has made us work together as a team, and working in a team has helped us in forward planning and strategic thinking. It has sharpened our problem-solving and decision-making skills. Working in a team has also made us understand how to distribute work equally and then work collectively. Through this project, we have learned the basics of Machine Learning, which were entirely new for us. We studied and learned various machine learning classifiers. We have also learnt how to write a research paper perfectly. So this project has sharpened both are social and technical skills.	Jupyter Notebook, Google Colab

16	CSE-I-16	First Shift	05014802718 ISHIKA	45314802718 CHARU		Ms. SAVITA SHARMA	Research Based	Inventory Demand Forecasting	Software Based Only	Demand forecasting is the technique of predicting the demand of a product or service using historical data for a specific period. Sales or demand forecasting helps plan business budgets and to set goals. It can also give insight into an organization's cash and inventory flow, which will help businesses invest in the organization's growth. The objective is to apply various machine learning models like XGB Regression, LSTM, Random forest and compare their accuracy.	1. Learned about core machine learning concepts. 2. Data visualization and analysis. 3. Learned about various machine learning models focusing on predicting future values. 4. Learned about different python libraries like pandas, numpy, matplotlib.	● numpy ● pandas ● seaborn ● matplotlib ● XGB Regression ● LSTM
17	CSE-I-17	First Shift	01014802718 AMAAN SAIFI	01114802718 AMAN RAJ CHOUDHARY	00714802718 AKASH HARIT	Dr. SANDEEP TAYAL	Research Based	IMAGE GENERATION USING GAN	Software Based Only	A Generative Adversarial Network, or GAN, is a type of neural network architecture for generative modelling. Generative modelling involves using a model to generate new examples that plausibly come from an existing distribution of samples, such as generating new photographs that are similar but specifically different from a dataset of existing photographs. This paper describes the use of GAN algorithms to generate new photographs that are similar but specifically different from a dataset of existing photographs. Specifically, the research is focused on the use of deep learning algorithm based on convolutional neural network in order to build a processing model. This model has the task to generate new photographs that are similar but specifically different from a dataset of existing photographs.	Generator Model was able to create new images whose goal was to fool the discriminator whereas the discriminator tried to distinguish between real and fake and was able to do so. Both the models learn from the competition with each other. And in the end, fake looks real. We were able to generate quite good images with as little loss as possible.	Google Colab Jupyter Notebook Anaconda Python
18	CSE-I-18	First Shift	09814802718 SIDDHARTH PAWAR	08414802718 RITIKA VERMA	09414802718 SARTHAK MITTAL	Mr. MOOLCHAND SHARMA	Research Based	AUTOMATIC RIGGING OF 3D MODELS WITH STACKED HOURGLASS NETWORKS AND DESCRIPTORS	Software Based Only	We put forward an approach for predicting animation skeletons for input 3D models of articulated characters. In contrast to earlier techniques that fit pre-defined skeleton templates or predict fixed sets of joints, our approach obtains an animation skeleton tailored for the structure and geometry of the input 3D model. Our architecture is based on a stack of hourglass modules trained on a large dataset of 3D rigged characters mined from the web. It works with a volumetric representation of the input 3D shapes that has been enhanced with geometric shape elements that provide extra indications for joint and bone positions.. The proposed method also allows for straightforward user customization of the output skeleton's level of detail. Our study shows that, when compared to many alternatives and baselines, our approach predicts animation skeletons that are significantly more comparable to those made by people.	We were able to identify the importance of Rigging in animation pipeline of 3D models while working on the research paper 'AUTOMATIC RIGGING OF 3D MODELS WITH STACKED HOURGLASS NETWORKS AND DESCRIPTORS'. This research has broadened our understanding of model rigging and neural networks by allowing us to conduct a thorough examination of the majority of existing automated rigging techniques. We worked on identifying and analysing various existing automated rigging methods, which enabled us to evaluate our model with existing rigging generation methods. We were able to identify the stacked hourglass trade-offs and successfully presented a comparative study between different combination of input features. The proposed methods yielded significant results. We recognised the significance of studying and analysing existing literature in order to improve our work on our paper. We determined the best ways to present the results of our experiment and draw a conclusion.	Python3, Blender, Maya
19	CSE-I-19	First Shift	02114802718 AYUSHI HASIJA	36114802718 RISHIT NAGPAL	36514802718 SRISHTI JAIN	Dr. DEEPAK GUPTA	Application Based	Analysis and Development of a Research Based Ranking of Google Scholars	Software Based Only	Google Scholar provides a simple way to broadly search for scholarly literature. From one place, you can search across many disciplines and sources: articles, theses, books, abstracts and court opinions, from academic publishers, professional societies, online repositories, universities and other web sites. Google Scholar helps you find relevant work across the world of scholarly research.	Learnt to do API Calling Learnt to implement a website Learnt to develop Filter based search engine	Python HTML CSS JavaScript
20	CSE-I-20	First Shift	42414802718 PAVITRA WALIA	42614802718 TANYA BATRA	42814802718 SARVESH NATH TIWARI	Ms. RUCHI GOEL	Research Based	Blockchain Based Framework for Professional and Academic Journey	Software Based Only	Blockchain is a system of recording information in a way that makes it very difficult to change, hack, or cheat the system. The goal of this research project is to tackle the problem of counterfeit certificates and other academic and professional details while preserving the genuineness of the corresponding documents using a system of Smart Contracts in conjunction with Distributed Ledger, using Ethereum Blockchain along with a web portal.	We learnt to -develop plans with relevant people to achieve the project's goals - break work down into tasks and determine handover procedures - able to Identify and utilize appropriate methodologies to address the research question. - Meet the relevant field's standards for the responsible conduct of research, and effectively navigate challenges that arise in the research process	Solidty, HTML , CSS, React JS

21	CSE-I-21	First Shift	40114802718 SATVIK	44014802718 OM PARASHAR	44314802718 MOHAMMAD SALIK	Ms. SUDHA NARANG	Application Based	Online integrated platform for projects taken up by the students of various colleges.	Software Based Only	All the students enrolled in universities for education courses dedicate their time to work on research or personal projects for the betterment of their grasp on the field they want to work in. But at present times, These students studying in colleges are unaware of what other students of the country in other universities are working on. This creates an education bubble around them being unaware of the fresh ideas available in the bright minds of other students. This is a major reason to work on this problem statement provided in SIH where the goal is to develop An integrated platform should be developed where in all the universities/Colleges provide information about the projects done by the students. The information on this platform will help in the peer learning and this will also help in cross functional research between various universities/colleges.	1. Learned how to work in a team based environment. 2. Learned the importance of applying First Principle thinking. 3. Learned about Microservices Architecture.	NodeJS, EJS, MongoDB, HTML
22	CSE-I-22	First Shift	20714802718 HIMANSHU GOYAL	20414802718 AAKASH GARG	20514802718 ISHAAN GARG	Mr. ANUPAM KUMAR	Research Based	Toxic Comment Classification	Software Based Only	The growing demand for the Internet has given rise to social issues such as abusive behavior which comprises intolerable comments, personal attacks, online harassment, and bullying. It is indispensable to categorize the comments based on toxicity to prevent the bullying on the social network. We are presenting a comprehensive way on classification of toxic comments and also providing a future roadmap for online toxic comments classification.	Working with new machine learning models, using new libraries like fast text and talos and getting an overall idea of how text classification can be done by using LSTM and LSTM-CNN model.	Python, Tensorflow, Numpy, Jupyter Notebook, Google Colab
23	CSE-I-23	First Shift	07814802718 PUSHKAR DUREJA	06814802718 NAMAN SAMRA	07314802718 NIPUN GUPTA	Dr. FARZIL KIDWAI	POC/Innovative idea	Electronic ticket system	Software Based Only	Event ticketing systems are facing challenges of preventing ticket forgery and scalping while ensuring privacy protection and information transparency. To alleviate these issues, this thesis presents a hybrid blockchain-based event ticketing system. It uses blockchain technology to ensure the transparency of ticketing information, and uses asymmetric encryption technology to protect privacy. The system also uses digital signature technology to ensure ticket authenticity, and has a novel ticket verification mechanism for preventing ticket scalping.	Blockchain technology	Solidity, web3.js,truffle,ganache
24	CSE-I-24	First Shift	41414802717 CHANDAN KUMAR	41714802718 GURPREET SINGH	75214802718 AMZAD CHOUDHARY	Ms. DEEPTI GUPTA	Research Based	Enhanced Super-Resolution Using GAN	Software Based Only	Super-resolution reconstruction is an increasingly important area in computer vision. To eliminate the problems that super-resolution reconstruction models based on generative adversarial networks are difficult to train and contain artifacts in reconstruction results. besides the breakthroughs in accuracy and speed of single image super-resolution using faster and deeper convolutional neural networks. However, the hallucinated details are often accompanied with unpleasant artifacts. This paper presented ESRGAN model which was also based on generative adversarial networks. To further enhance the visual quality, we thoroughly study three key components of SRGAN – network architecture, adversarial loss and perceptual loss, and improve each of them to derive an Enhanced SRGAN (ESRGAN). In particular, we introduce the Residual-in-Residual Dense Block (RRDB) without batch normalization as the basic network building unit. Moreover, we borrow the idea from relativistic GAN to let the discriminator predict relative realness instead of the absolute value. Finally, we improve the perceptual loss by using the features before activation, which could provide stronger supervision for brightness consistency and texture recovery. Benefiting from these improvements, the proposed	Identify and utilize appropriate methodologies to address the research question. Meet the relevant field's standards for the responsible conduct of research, and effectively navigate challenges that arise in the research process. Work collaboratively with other researchers, demonstrating effective communication and problem-solving skills. Present the research effectively in a conference setting and a written publication.	NVIDIA GeForceMX150, Windows 10, Intel (R) Core (TM) i7-8550U CPU@2.00GHz, 8 GB RAM
25	CSE-I-25	First Shift	03614802718 DIVYAM SINHA	03314802718 DHRUV KAPOOR	03514802718 DIVYAANSH	Ms. ZAMEER FATIMA	Application Based	Brand Protection Using Blockchain	Software Based Only	Blockchain is a form of distributed ledger technology, in which a secure, transparent, time stamped, and authenticated record of every transaction is created and reported to everyone on the blockchain platform. Fake products create a huge negative impact in the market for both buyers and sellers. The sellers fail to deliver the product as per the consumers expectations and the consumers start to doubt the quality and standards of the company which ultimately results in the negative marketing of the brand whose fake products are being circulated in the market. The fake or counterfeit products are not restricted to any particular sector in the market therefore it has become really important for us to detect these products and find a way to keep them out of the market. In this project, we propose a system where we store product detail and its ownership status on architecture provided by Ethereum and we use smart contracts to update the owner of the product when the product is sold. And will be able to determine whether the product is fake or real.	Smart Contract, Frontend, Backend, Protecting brand	Solidity, Reactjs, Web3, Metamask, Etherium

26	CSE-I-26	First Shift	01614802718 ANKIT KUMAR	00414802718 ABHISHEK RANJAN		Ms. NEETU GARG	Research Based	Leaf Disease Detection	Hardware and Software Based	This project is concerned with the development of a new plant disease recognition model based on leaf image classification using deep CNN. The novel training method and methodology used allow for a quick and easy system implementation in practice. The model which we are developing will be capable of distinguishing different types of plant diseases from healthy leaves, as well as distinguishing plant leaves from their surroundings. For separate class tests, the experimental results on the developed model achieved precision.	Deep Learning modelling with real life objects, use of CNN	Kaggle, Keras
27	CSE-I-27	First Shift	03214802718 DEEPIKA RANA	35314802718 HARSHITA CHADHA	02814802718 DEEKSHA MADAN	Ms. NEELAM SHARMA	Research Based	Detection of Schizophrenia using Machine Learning	Software Based Only	Schizophrenia is a serious mental health disorder that inhibits the ability of an individual to function as a productive member of society. Despite the criticality of this disorder's nature, clinical detection methods remain highly convoluted and the diagnosis is usually delayed. This article proposes a convolution neural network-based schizophrenia detection technique that makes use of biomedical signals to classify patient groups. The use of electroencephalogram (EEG) data from an adolescent control group is done to tailor the model to facilitate accurate early detection. To prepare the EEG impulses, the Morlet Wavelet Transform is used to obtain RGB scalograms in image format. These are fed into the 7 layers deep convolution neural network. In the end, the model is shown to have the highest testing accuracy of 94.4% and an F1 score of 0.945. The lightweight nature of the model and the comparatively less computational complexity of the used algorithms therein coupled with the superior performance metrics make it a classifier that can be successfully used for field diagnostics.	Learning Outcomes - 1. How to make a dataset with the raw EEG Signal 2. How to create an optimised Model 3. How to tune the hyperparameters to obtain a better model	Jupyter Notebook Google Colab
28	CSE-I-28	First Shift	07114802718 NAYAN AGARWAL	07214802718 NIKHIL SHARMA	00914802718 AKSHAY JAIN	Ms. NEETU GARG	POC/Innovative idea	Open Banking Hybrid Cloud Architecture	Software Based Only	Individual Banks and the Banking System as a whole make a home for a large chunk of its client data and various forms of possible interactions and transactions that are carried by the end-users of the bank. Due to security purposes, this data presently is being given very limited access to the users and staling out in the Banking Databases. There is a need to design a system for making this information publicly available for upcoming SMEs and individuals those can benefit from the potentially existing demographic trends keeping a check of the possibly emerging regulatory threats.	1. Learned a lot about Cloud Computing 2. Significantly increased the knowledge on how banks operate 3. Came across FinTech mechanisms and workings I was not priorly aware about	1. MongoDB 2. React 3. Express.js 4. Nodes.js 5. Mongo Atlas 6. JWT 7. Redux 8. REST API
29	CSE-I-29	First Shift	43514802718 SANJAY MAJHI	43114802718 RATUL HANS	40514802718 DHRUV BANSAL	Ms. ZAMEER FATIMA	Application Based	Centralized Grievance System Portal	Software Based Only	We are developing a Centralized Grievance System Portal as a part of our B.Tech 4th Year curriculum for Major Project. We have gone thorugh the problem statements in SIH 2022, and found a problem statement by University Grants Commission. Considering the fact that there are large number of HEIs in the Country and to enable all relevant regulators to take informed decisions, there is requirement of development of portal where authenticated complaint/ Grievance with documentary evidence can be filed. This will lead towards transparency in the system and also reduce the mal-practice cases. So, we are going to develop 2 way mechanism of Complaint / grievances raising by the HEIs and Complaint / grievances addressing by the regulatory bodies.	1. We learned how to make a full fledged website using PHP, JQuery and MySQL. 2. We learned how to work as a team for a common goal. 3. We learned how to do research before starting a project. 4. We learned how to think innovatively and also considering the end user. 5. We learned how to set proper timelines for a project. 6. We learned how to use different software tools like apache, github and so on.	HTML, CSS, Bootstrap, JQuery, PHP, MySQL, VS Code
30	CSE-I-30	First Shift	40614802718 SAHIL BRODIYA	36714802718 VISHESH KHANNA	41014802718 DEEPESH CHAUDHARY	Ms. SHALLU JUNEJA	Research Based	Sentiment Analysis of Social Factors on Software Development in Software Repositories	Software Based Only	Sentiment Analysis is about determining attitudes. Sentiment analysis is one of the Natural Language Processing fields, dedicated to the exploration of subjective opinions or feelings collected from various sources about a particular subject. In the recent times, a lot of studies have been conducted based on the impact that emotional factors have on software development. For instance, for each reported task or issue, Jira records the description, resolution status (Resolved or Unresolved), issue type (Bug, Task, Improvement, etc.), comments sequence, and the number of developers involved, among others. It is exciting to wonder if the affective states (sentiments or emotions) that software professionals may express have any influence on their productivity or on the success or failure of their tasks. The primary objective of this research is to study correlations between developers' emotions and their activities performance. In order to analyse the sentiments and obtain better results we built a tool and quantitatively evaluated the performance of the tool with that of prominent SE sentiment analysis models. Experimental results show that our tool outperforms the existing models in terms of evaluation metrics.	Major project was a great opportunity for all the team members. We improved our teamwork and team communication. We gained knowledge about the technologies and how they can make our lives easy. We gained skills about project management. We broke down the project into smaller tasks. We were able to study correlations between developers' emotions and their activities performance. Knowledge about different ML models was gained. Roles were allocated with clear lines of responsibility and accountability. The tasks were completed and combined to get results. Combined knowledge of team helped in problem solving.	Python, Jupyter Notebook

31	CSE-I-31	First Shift	01814802718 AVIRAL GAUTAM	01414802718 ANIRUDH GARG	01914802718 AYUSH DEVRANI	Ms. SUDHA NARANG	Research Based	Neural Machine Tramslation	Software Based Only	In this project we are using Special type of RNN called LSTM (Long short Tern memory) to achieve translation from english to french Language. Dataset is taken from a reputed website and model is trained on a Large Dataset Using Pro version of Google Colab to achieve the maximum possible accuracy. Optimizations and suggestions have been implemented Completely and Accuracy has been improved a lot..	Technical Learnings: LSTM, Model optimization, Hyper-parameter tuning, Recurrent Neural Networks Soft Skills: Project management, team collaboration, time management	Keras, Python, Google Colab Pro, Jupyter Notebook, Numpy, MatPlotLib
32	CSE-I-32	First Shift	05114802718 JATIN CHOPRA	05414802718 KARTIK SHARMA	05514802718 KARTIK SHARMA	Dr. FARZIL KIDWAI	Research Based	Rainfall prediction using iot	Hardware and Software Based	The present focus has been moved towards canny advances like IoT and Machine Learning. Numerous IoT equipment stages are accessible for IoT executions. ESP8266 chip is one of them. This paper carries out the ongoing Rainfall forecast framework that can be utilized in number of uses like homes, ventures, farming, arenas and so on for foreseeing the rainfall data. The framework uses a temperature and dampness sensor for example DHT11. The detected information from the sensors are transferred to a cloud server utilizing NodeMCU and ESP8266-01 module. The information is additionally shown on an altered HTML website page for checking the continuous qualities. A strategic relapse model is utilized for setting up the AI climate. This model is prepared utilizing the pre-recorded upsides of sensor information. Further, NodeMCU records the information from sensors for example temperature, stickiness and light power and afterward the qualities are moved to the Jupyter scratch pad that uses a python climate. This ongoing information is utilized to test the model and expectation is finished a specific worth by	Our project was successfully able to determine the rainfall by analysing the rainfall patterns , we also made an iot device which was used to take the real time readings, which helped in increasing the overall accuracy of the project too.	Jupyter notebook, Arduino, python,html
33	CSE-I-33	First Shift	45414802718 NAMAN BUDHIRAJA	43414802718 NISHANT AGGARWAL	43614802718 YUVRAJ SINGH	Mr. ANUPAM KUMAR	Application Based	Fit Alliance	Software Based Only	It will be an Android application that users can use to track their daily activities like walking, jogging, sitting, standing, walking upstairs and walking downstairs. The application that can count no. of reps you have made in a set of exercises. The application uses a Convolutional Neural Network (CNN) to predict user activity automatically and stores the information in a database stored on the phone. The users can then choose to visualize the statistics. It will provide exciting facts about every essential fitness tip that will develop your mind to eat less unhealthy food. The application that can count no. of reps you have made in a set of exercises. We will create an exercise tracker which will remove the need to have the instructor for the exercise as in lockdown it becomes difficult to go to the gym. In future, we will add more functionality like if an incorrect posture or deviation from the actual posture is observed, the user will receive a text or audio reminder(alarm). The text messages will be accompanied by images of correct posture and users' incorrect posture.	1) Team Management 2) Leadership Skills 3) Communication Skills 4) Collaborative Skills 5) Android Development	Android Studio, Git , GitHub
34	CSE-I-34	First Shift	01214802718 AMBUJ	07014802718 NANDEESH GUPTA	02214802718 AYUSHI MEHARWAL	Dr. FARZIL KIDWAI	Application Based	AutoFis - Fish Species Identification	Software Based Only	There is a rising requirement for computerized fish characterization to help appropriately recognize fish species and attributes in a normalized, harmless, and savvy way. AI is a promising strategy to do this. In this paper, we present the aftereffects of a convolutional neural networks (CNN) used to recognize fish species across datasets. Our proposed model enhances a formerly fabricated model by Rathi et al. (2018). The exhibition of our superior model is shown with true information from Fish4Knowledge site. INCOIS is giving Marine Fishery Advisory Services to the anglers. To assess its precision and to foster species-explicit warnings it is impotent to gather the fish-get data at the species level. While fisher people are steady to these endeavors, frequently species level find detailing is having obstacles because of a few reasons relating to manual endeavors which brings about low or mistaken announcing. We are fostering an AI-ML model in light of devices for picture based ID of fish-species found in the Indian oceans. The pictures of fishes might be taken from online picture look. INCOIS will actually want to involve this for its anglers input application, where anglers need to snap a picture of fishes got and fish-recognizable proof will	Machine Learning, CNN , Python, Web Scraping	Python, Google Collab, GitHub, Beautiful Soup, RoboFlow
35	CSE-I-35	First Shift	03114802718 DEEPANSHU SINGH	02914802718 DEEPAK KUMAR	05214802718 JATIN SHAMI	Mr. AJAY TIWARI	Application Based	Graphical password Authentication	Software Based Only	A graphical password is an authentication system that works by having the user select from images, in a specific order, presented in a graphical user interface (GUI). For this reason, the graphical-password approach is called graphical user authentication (GUA). The most common computer authentication method is to use alphanumerical usernames and passwords. This method has been shown to have significant disadvantages. For e.g, users tend to choose passwords that can be easily guessed. On the other hand, if a password is difficult to guess, then it is often difficult to remember. To overcome this problem of low security, Authentication methods are developed by researchers that use images as password. We conduct a comprehensive survey of the existing graphical password techniques and provide a possible theory of our own. Graphical password schemes have been proposed as a possible alternative to text-based schemes, by the fact that humans can remember pictures better than text; Pictures are generally easier to be remembered or recognized than text.	1. Graphical password is a better alternative for authentication system than alphanumeric password. 2. Major flaw with image password is that it requires much more storage space than text based passwords. 3. Graphical password schemes provide a way of making more human-friendly passwords.	Python, MySQL and Visual studio code

36	CSE-I-36	First Shift	44614802718 UTSAV KUCHHAL	75314802718 ADITYA BHARDWAJ	50114802718 SHIVANGI	Dr. NEERAJ GARG	Application Based	Smart Attendance Capturing Mobile App	Software Based Only	● Capture, Basic Details of Employee, Photograph, Name, Designation, Employee no, Office Address, gender. ● Recognize the Employee by face while capturing the Attendance through face recognition and enter the relevant details including entry time in the system after successful face recognition. ● Similarly while leaving the office premises employees will be recognized by their face and exit time will be recorded/ entered into the system. ● The app will automatically capture the GPS location where the attendance is taken and allow the attendance only in the geofenced areas i.e. 100 meters within the latitude & longitude of the premises, otherwise, the app will automatically exit. ● The app will work for any specified Employee with or without wearing spectacles, caps, or industrial helmets.	Improved Conflict-Resolution Skills Teamwork Finding Solutions to Complex Problems Leadership Skills Creativity	Android Studio Figma
37	CSE-I-37	First Shift	05914802718 MADHAV KHURANA	43014802718 NAMAN AHUJA		Dr. SANDEEP TAYAL	Research Based	The Social House	Software Based Only	It is a social media platform with enhanced interactivity. Video is generally used in these applications in order to provide a richer sense of presence, help coordination of communication and facilitate emotional expression. However, delivering high-quality video to larger groups remains technically challenging, since the available bandwidth has to be shared between users.	WebRTC API, socket programming, react.js, node.js, website development, video optimization	WebRTC API, socket programming, react.js, node.js
38	CSE-I-38	First Shift	36214802718 SATVIK DHINGRA	35214802718 AMAN OSAN	36014802718 PARTH AHUJA	Mr. YOGESH SHARMA	POC/Innovative idea	InspectaThor	Software Based Only	Insurance is something that every person and every company wants due to the uncertain current situation of the world. Insurance industry is huge because the life and property of an individual or the assets of a company are surrounded by the risk of death, disability or destruction. Insurances provide a hedge to these uncertain circumstances. Current advances in information technology, Machine Learning and Artificial Intelligence can mark the beginning of a veritable efficiency revolution in the insurance industry. We believe the processes involved in Insurance can be streamlined very easily by the help of technology and have seldom been done.	-> Creating an efficient and user friendly KYC process. -> Learned to create RESTful APIs to connect the backend to frontend. -> Learned about OCR.	Python, Tesseract, React, HTML, CSS, JS, FastAPI, Heroku
39	CSE-I-39	First Shift	43914802718 PARAS CHUGH	42714802718 HIMANSHU SINGH BISHT		Mr. ASHISH SHARMA	POC/Innovative idea	Decentralized Crowd-Funding Using Blockchain	Software Based Only	Crowd funding is an online money-raising approach that began as a way for people to donate a little amount of money to help inventive people fund their ventures. People may invest in pioneering by using crowdfunding. Businesses can use an intermediate medium or platform to connect with each other. The problem with the present method of crowd financing is through a third-party channel. Don't guarantee the money given by the investor. The project and the investor have no control over the money contributed. This paper offers a blockchain-based crowdfunding infrastructure that can provide a private, secure, and decentralized crowdfunding path. The major goal of this paper is to allow investors to successfully contribute to any project by establishing smart contracts that allow contributors to have control over their money and project creators and investors to effectively make and reserve funds for the project.	1) Knowledge of Blockchain technology 2) Implementation of Blockchain in real-world scenario. 3) Implementation of next js 4) Learning about transactions using ethereum. 5) Learning solidity language	VSCode, Remix editor, metamask, vercel CLI, Solidity
40	CSE-I-40	First Shift	44814802718 ANUJ ARORA	75114802718 RHYTHAM JAYEE	45014802718 AYUSH PANDEY	Ms. MINI AGARWAL	Application Based	Student Verification System Using Blockchain	Software Based Only	In India, the basic structure of a student's studies goes like taking admission in kindergarten, after that changing of school for primary, secondary, and high school studies. Now, after completing high school students, need to get admission into junior college. For graduation, there's also once again changing of college. This is the basic cycle for student's study years. After this, some students continue to pursue higher studies. So the problem with this cycle is that a student needs to produce all his certificates in each stage for validation. This poses a risk of losing and damaging the certificate. And it is tedious for the validator to authenticate each certificate. With such a huge population in our country, almost every year 26.3 million students graduate. It is very hard to keep track and validate such a huge amount of records. Due to this, an unwanted scenario rises i.e. tampering and production of fake or duplicate certificates. There are a lot of hidden agencies in our country who are running this scam behind everyone's back. Technology has moved quite forward until now. Distinguishing between a fake and an original certificate will require a lot of concentration and result in wastage of precious time.	1. Able to demonstrate a sound technical knowledge of Blockchain Technology. 2. Able to undertake problem identification, formulation and solution. 3. Able to design engineering solutions to complex problems utilizing a systems approach. 4. Able to conduct an engineering project. 5. Able to communicate with engineers and the community at large in written an oral forms. 6. Able to demonstrate the knowledge, skills and attitudes of a professional engineer.	Solidity, Javascript, Blockchain, Remix, Ethereum, Truffle, Ganache, Smart Contracts

41	CSE-I-41	First Shift	00114807219 RAJAT PANWAR	00214802718 AAYUSH KINDO	00314802718 ABHINAV GUPTA	Ms. PRERNA SHARMA	Research Based	Stock Price Prediction using Stacked LSTM-Deep Learning	Software Based Only	The objective is to predict the stock prices in order to make more informed and accurate investment decisions. We propose a stock price prediction system that integrates mathematical functions, machine learning, and other external factors for the purpose of achieving better stock prediction accuracy and issuing profitable trades.	We learned to develop a deep network model to simultaneously predict the opening price, the lowest price and the highest price of a stock on the next day according to the historical price of the stock and other technical parameter data. We learned examine the feasibility of LSTM in stock market forecasting by testing the model with various data points. We Learned to analysis of Stock Market.	Tensor Flow,Kerras, Pandas-datareader, Numpy
42	CSE-I-42	First Shift	20914802718 KSHITIJ KATIYAR	40414802718 KUNAL	45614802718 PRATEEK TAGORE	Ms. DEEPTI GUPTA	Application Based	Epubator: Pdf to Epub Converter	Software Based Only	The objective of our Project was to create a secure pdf editor and e-PUB Converter that is easy to use and have simple interface. It is completely secure as it does not upload the PDF file to any insecure Internet.	1. Integrate Information from multiple resources. 2.Refine and practice the skill 3. Team work and man management	ITEXT library, Android Studio, Apache Freemaker,Readium SDK
43	CSE-I-43	First Shift	10214802718 UDIT JAIN	10314802718 UMANG TIWARI	04514802718 HIMANI SHEORAN	Ms. SAVITA SHARMA	Research Based	Link prediction on social media	Software Based Only	Link prediction is to predict whether there will be links between two nodes based on the attribute information and the observed existing link information. Link prediction not only can be used in the field of social network but can also be applied in other fields. As in bioinformatics, link prediction can be used to discover interactions between proteins; in the field of electronic commerce, link prediction can be used to create the recommendation system; and in the security field, link prediction can help to find the hidden terrorist criminal gangs. Link prediction is closely related to many areas. Therefore, in recent years there is a lot of correlation algorithms proposed to solve the problem of link prediction.	An introduction to link prediction, how it works, and where you can use it in the real-world □ Learn about the importance of Link Prediction on social media □ Build your first Link Prediction model for a Facebook use case using Python	Python Machine learning Graphs
44	CSE-I-44	First Shift	08614802718 ROHAN SINGLA	06514802718 MOHIT PANWAR	08814802718 ROHIT PANDEY	Ms. SAKSHI JHA	Research Based	Sign language detection	Software Based Only	Everyday we see many people, who are facing illness like deaf, dumb etc. There are not as many technologies which help them to interact with each other. They face difficulty in interacting with others. Sign language is used by deaf and hard hearing people to communicate with others. Computer recognition of sign language deals from sign gesture acquisition and continues till text/speech generation. Sign gestures can be classified as static and dynamic. However static gesture recognition is simpler than dynamic gesture recognition but both recognition systems are important to the human community Preprocessing was performed on the images with the help of label image tool, which then be served as the cleaned input. Tensor flow is used for training of images. Trained Model will then be stored to the ibm cloud and then we develop react app which will be used to capture real time images and request the model to recognize the images. This react app will serve as a tool for sign language detection. Tensor flow is used for training of image. ibm cloud is used for the storage of the trained model. Keywords: ASL recognition system, convolutional neural network(CNNs), classification, real time, tensor flow	How to train model, upload model on ibm cloud and intergrate model into react	Tensor flow, jupyter, ibm cloud, python,vs code
45	CSE-I-45	First Shift	04914802718 ISHAAN SINGHAL	01614807219 ANSHIK BANSAL	05714802718 KRISHNA MADAN	Mr. YOGESH SHARMA	POC/Innovative idea	Using Innovative Blockchain Technologies in Emergency Management and Disaster Response	Software Based Only	The NDRF relies on a lot of data to quickly action during the time of disaster. Current limitations are that there is no one common platform / integrated or adaptable for futuristic needs. Blockchain is one suitable technology that is a secure, distributed, and immutable digital ledger that records transactions. Using blockchain in emergency management can provide interoperability between many parties involved in response and provide transparency. Our scope of the project includes but is not limited to building a common platform, with immutable data sharing, secure sharing & management, demand reporting, improving trust with 3rd party verification, tracking, and visibility, honoring volunteer effort, tokenization. A blockchain solution seems to be of much use to address the challenges in disaster response mechanisms.	We've learned state-of -the-art tools like HardHat. Brownie, Infura to build a decentralized application on Polygon Matic Blockchain that promotes transparency in our system.	Solidity, Ganache, Polgyon Matic, Brownie, React, Infura

46	CSE-I-46	First Shift	07614802718 PRADHUMAN SINGH	00614802718 ACHINT SINGH NARANG	06714802718 NAMAN ARORA	Dr. ASHISH KHANNA	Research Based	Leveraging swarm intelligence for policy evaluation	Software Based Only	In a democratic nation like India, the council of a nation is the entity in power elected by the country's citizens to manage the nation. A policy is defined as "A course of action or principle of action adopted or proposed by an organization or individual". In other words, any decision taken by the government is translated into a policy or a program. Therefore, access to public benefits also requires evaluating the performance of public schemes. The success of a program is a direct indication of the success of the leaders who started it. The effectiveness of a policy can in turn be measured by various techniques such as collecting statistics on its impact or comparing the state or situation before and after the implementation of the regime. Another method, which seems to be more effective, consists in obtaining the opinion of the target group of the policy. A policy aimed at the welfare of a particular part of society would not be considered successful if that part of society does not benefit from it or finds fault with it. Therefore, collecting and analyzing the sentiments of the target group is often seen as an important and effective step in measuring the success of a policy.	The Indian government launched Digital India on July 1, 2015, with the goal of making all its services online and accessible to all its citizens. Opinion mining of tweets on "#Digital India" revealed that 46.6 percent of respondents supports the programme, while 24.5 percent is sceptical. This model will not only assist the government in understanding its effect on the community, but also provide guidance for future judgements and courses of action. The proposed framework has a wide scope and can be extended and implemented in a number of different application areas such as business analytics, healthcare systems, fault detection etc.	Python, Machine Learning, Jupyter, Anaconda, Kaggle
47	CSE-I-47	First Shift	41814802718 ARPIT GOEL	41414802718 ANIKET SINGH	42214802718 UPMANYU AGRAWAL	Mr. SAURABH RASTOGI	Application Based	Platform for Household Culture and Traditions	Software Based Only	To develop a platform where verified organizations across the country can showcase their locale cultural heritage and tradition throughout the country. The platform allow organizations to create different event based on their local culture and traditions on yearly basis. The platform allow organizations to view participants and show the results of the event. The platform also allow normal users(other than organizations) to participate in the event of their organizations. It allow normal user to view, like, dislike and share the showcased results of the events of other organizations too.	1. The project follows Industry Project Structure i.e File Structure 2. Understanding of various programming aspects. 3. Understanding of various data sets, ML algorithms for recommender system and toxicity Analyser. 4. The most Important one understanding of various Cultures and Heritage of India.	1. Visual Studio Code (Editor) 2. Node.js , express.js(Backend) 3. React.js (Material ui , react-Bootstrap, semantic-ui for Frontend)
48	CSE-I-48	First Shift	09914802718 SIDDHARTH SETH	09614802718 SHIVAM SHEKHAR		Ms. RUCHI GOEL	POC/Innovative idea	Speech Emotion Recognition	Software Based Only	Emotions are the most common way on how express ourselves. Emotion detection from voice can be used for various applications like Digital assistants like Siri, Cortona, Alexa, Google Assistant. For business marketing, where they can recommend products based on user emotions and machine customer support, machines can detect the customer's emotions and replay according to that situation based on emotions. As human's speech is amongst the most natural way to express ourselves. We depend so much on it that we recognize its importance when resorting to other communication forms like emails and text messages where we often use emojis to express the emotions associated with the messages. As emotions play a vital role in communication, the detection and analysis of the same is of vital importance in today's digital world of remote communication. Speech Emotion Recognition is the challenging problem in ways such as emotion may differ based on the environment, culture, individual face reaction leads to ambiguous findings. Speech Emotion Recognition, abbreviated as SER, is the act of attempting to recognize human emotion and affective states from speech. This is capitalizing on the fact that voice often reflects underlying emotion through tone and pitch.	Understanding of MLP , Neural networks working , various python libraries utilization and implementation	Python , librosa , MLP classifier , .wav audio files , jupyter notebook
49	CSE-I-49	First Shift	41514802718 CHETAN AGGARWAL	42114802718 HIMANSHU DAHIYA	42514802718 SHUBH GOYAL	Ms. MINI AGARWAL	Application Based	Aarekh 2.0 - an Augmented Reality Based App	Software Based Only	To enhance the learning ability of Students using Augmented Reality. Visualization in 3D is not easy for students, and this enhancement will make it more informative, effective and visually attractive. The prototype provides students and teachers with 3D models based on AR which are interactive and scalable.	1. Understanding the problem statement and identifying corresponding objective. 2. Identifying the tools and technology to be used for solving the problem. 3. Comparing various solutions and choosing the best one. 4. Working in a team and communicating efficiently. 5. Developing the project effectively by following a software development lifecycle.	Blender, Vuforia, Unity 3D, C# script
50	CSE-I-50	First Shift	02414802718 BHARAT GOMA	02514802718 BHARTI SURAJ RAMASHANKER		Mr. AJAY TIWARI	Research Based	Online Voting System	Software Based Only	Technology is changing very rapidly and with new tools and technology comes alternate and better ways of doing things. Security and transparency are some of the threats which the world faces. Similarly, the elections are held by a centralized party and there is always a possibility of data tampering. Blockchain is one such technology that can deal with such threats. Blockchain is a digital information recording system that is created in such a way that makes it very difficult to tamper with data.	Understanding the blockchain Technology Understanding solidity Glimpse of Ethereum Blockchain Hands-On on Frontend Development	Solidity, Ethereum, Ganache, Mocha, ReactJs, Metamask, Javascript

51	CSE-I-51	First Shift	00814802718 AKHIL ANUGRAH XAXA	04114802718 HARSH GUNWANT	35914802718 NISHCHAY GUPTA	Ms. SAVITA SHARMA	Application Based	Socio analyser: multilingual Twitter sentiment analysis using xlm-roberta	Software Based Only	Code-mixing is the phenomenon of mixing the vocabulary and syntax of multiple languages in the same sentence. It is an increasingly common occurrence in today's multilingual society and poses a big challenge when encountered in different downstream tasks. Present-day Sentiment Analysis' models can be used effectively to classify textual data in a given language. However, these models can provide unsatisfactory results when the given data is an amalgamation of more than one language. The scope of our project involves building a Twitter monitoring system to track customer behaviours towards brands by identifying sentiments fluctuation, analysing trending topics and geographic segmentation, and detecting anomaly on scandals, with consideration of improving brands' customer engagement and retention. We keep track of all relevant Twitter content about a brand in real-time, perform analysis as topics or issues emerge, and detect anomalies. By monitoring brand mentions on Twitter, brands could inform engagement and deliver better experiences for their customers across the world. Many customers share their good or bad opinions about products or services online nowadays. Analysing and considering reviews helps understand the general customer	After much iterations over weeks, we observe that using XLM-Roberta consistently outperformed the other techniques. Using it, we achieved an accuracy of 75.7% on test data. After these results, we were able to map the data from twitter to our web portal in real-time. Visualization of not only the sentiments, but also geographical mapping of the data, most used words alongside brand name and representation of percentage distribution of sentiment was made available in this portal.	Python Lemmetization Sci-kit Pytorch Flask NLP XLM Roberta
52	CSE-I-52	First Shift	35714802718 KHUSHI BANSAL	35514802718 ISHITA ARORA	36314802718 SHRUTI AGGARWAL	Dr. ASHISH KHANNA	Application Based	Health Manager	Software Based Only	The coronavirus disease (COVID-19) pandemic, which originated in the city of Wuhan, China, has quickly spread to various countries, with many cases having been reported worldwide. As of May 8th, 2020, in India, 56,342 positive cases have been reported. India, with a population of more than 1.34 billion—the second largest population in the world—will have difficulty in controlling the transmission of severe acute respiratory syndrome coronavirus 2 among its population. Multiple strategies would be highly necessary to handle the current outbreak; these include computational modeling, statistical tools, and quantitative analyses to control the spread as well as the rapid development of a new treatment. The Ministry of Health and Family Welfare of India has raised awareness about the recent outbreak and has taken necessary actions to control the spread of COVID-19. The central and state governments are taking several measures and formulating several wartime protocols to achieve this goal. Moreover, the Indian government implemented a 55-days lockdown throughout the country that started on March 25th, 2020, to reduce the transmission of the virus. This outbreak is inextricably linked to the economy of the nation, as it has dramatically impeded industrial sectors because people worldwide	The uniqueness, importance, objective of this project lies in doing some good for the society, solving a serious problem faced by people.Once this software is hosted, everyone would be able to know the right information important for them at the right time.Users of COVID-19 Tracker will not have to panic at the situation of emergency and get all the necessary information at one place. There are no risks involved in the tech-stack of the project because all the technologies are well-established, though the API's used in this projects update their information on a day to day basis which might lead to slightly inaccurate information but the amount of deviation on the actual value is expected to be negligible so the risk can be overlooked.Each technology is free and the required technical skills are manageable. The Time limitations of product development and the ease of implementing using these technologies are synchronized.Being a web application this tracker will be hosted on an open cloud storage. Since the system doesn't consist of any multimedia data transfer, the bandwidth required for the operation of this application is very low. No charges will be charged to potential customers.	a) Frontend Development 1. VSCODE Visual Studio Code is an integrated development environment made by Microsoft for Windows, Linux and macOS. Features include support for debugging, syntax highlighting, intelligent code completion, snippets, code refactoring, and embedded Git. 2. AdobeXD Adobe XD is the UX/UI design solution for experienced designers to design, prototype, and share engaging user experiences. 3. HTML HTML (HyperText Markup Language) is the most basic building block of the Web. It defines the meaning and structure of web content. 4. CSS
53	CSE-I-53	First Shift	40814802718 LAKSHAY CHAWLA	35814802718 MEHUL REKHI	35114802718 ADITYA MEHTA	Mr. AJAY TIWARI	Application Based	Automated Notes Maker from Audio Recordings	Software Based Only	Ever wish you could just speak your thoughts into a document instead of writing or typing them or convert your online lectures to transcripts? We aim to provide a one stop solution for Speech to text conversion using Deep Learning, Convolutional Neural Networks.	1. During the project, we learnt how to deal with unseen problems while making a splution for a given problem statement. 2. We also inculcated work ethics like internal deadlines, great team work and transparent communication. 3. Being led by an amazing guide, we were able to solve any problems that we faced and came up with interesting yet functional solutions.	Tensorflow library with python using anaconda IDE
54	CSE-I-54	First Shift	00714807219 ANIKET KUMAR	00914807219 VIPUL KUMAR	01414807219 AYUSH GAUTAM	Dr. NEERAJ GARG	Application Based	Educators.io	Software Based Only	Every year through the government exams plenty of teachers are hired and posted in various government schools. The tracking of teachers from recruitment to their entire service duration is done manually which makes it difficult to manage and keep track. Addressing this problem will give government the ease of managing teachers through one single portal which will help in maintaining clear stats of the teachers currently posted.	Used effectively oral, written and visual communication. Identified, analyzed, and solve problems creatively through sustained critical investigation. Managed time good. demonstrate skill and knowledge of current information and technological tools and techniques specific to the professional field of study.	1. VSCODE 2. BROWSER(Chrome,Firefox,etc) 3. MongoDB 4. NodeJS 5. Postman 6. ROBO3T
55	CSE-I-55	First Shift	04314802718 HARSHIT	02014802718 AYUSH KUMAR SINGH		Dr. JYOTI KAUSHIK	Application Based	ARDUINO BASED CUSTOMIZABLE VEHICLE DISPLAY SYSTEM	Hardware and Software Based	Over the past decade there has been a growing interest and enthusiasm, for electric vehicles. Will fuel stations be taken over by fast charging stations? Will the transportation sector of the future be electric? Governments have offered subsidies, supported the installation of a charging environment, and are starting to develop regulatory initiatives to support and manage an electric vehicle fleet. In fact, some governments, have announced that they will not permit the sale of new fossil-fuel based automobiles after 2040. The car manufacturers that were initially in doubt about electric vehicles are now investing billions of dollars in their production. As we can see the future is electric ,evolved with vehicles like e verito, Ather 450x and many more similar vehicles running on roads, India has also started the transmission from gasoline based to electric vehicles at this time there is a constant need of designer equipment that can add on to basic electric vehicles. An Arduino based customizable display was developed using hall sensor, 3.5 inch TFT display etc. which can be powered on by any electric vehicle car, e bike etc. and based upon its range certain calculations take place such as the voltage, battery percentage , to be travelled distance, speed. The speedometers being used in conventional e-bikes these days are	Learning to code for hardware based projects and teamwork with people from different fields.	Arduino IDE Arduino Microcontrollers(UNO,MEGA,LEONARDO) Arduino compatible sensors(hall effect)

56	CSE-I-56	First Shift	41914802718 JATIN MALHOTRA	42014802718 YASH GUPTA	43214802718 DEEPAK SHARMA	Dr. JYOTI KAUSHIK	Research Based	Network Intrusion Detection System	Software Based Only	IDS stands for Intrusion Detection System. It helps in monitoring network traffic and detects unwanted intrusions to secure our system from any kind of attacks or malwares. We basically used KNN datasets and NIDS as an algorithm to find the best possible way to get our results. We have used different models like Decision Tree Model, Gaussian Naïve Bayes Model, K-Neighbors Classifier Model, Logistic Regression model. To build an algorithm for processing the data and network and monitor it for the detection of intrusion. In our project we found that the KNN algorithm is fastest and that's why we adopted it.	In this research, The implementation design provides a framework for the modeling of effective network intrusion detection systems. Integration of network intrusion detection systems with a line of intrusion prevention mechanisms will greatly improve on the system performance. The advantage with this is that it allows the system to take up the strengths of the different intrusion prevention mechanisms in the overall network security. It also ensures high system scalability since devices can easily be added or removed from the system without affecting its overall performance. Configurations not being tied onto a single devise reduces the chances of having a single point of failure. The system is also effective since it looks at both external attacks and internal attacks that make up one of the most dangerous threats to network security. It is an adaptable system that can be customized to meet the different needs in different areas.	Python
57	CSE-I-57	First Shift	06914802718 NAMIT JAIN	06614802718 NAKUL NARANG	07514802718 PARCHAM GUPTA	Ms. RUCHI GOEL	Research Based	Preliminary Disease Detection System using Deep Learning	Software Based Only	The medical infrastructure of the developing nations faces two prominent issues today, namely, the unavailability of medical staff and late or delayed diagnosis of major diseases. Such problems are caused due to the rapid increase of population and the widening margin between the availability of quality medical facilities in the urban and rural areas. Further, the last few decades have seen a rapid rise in the discovery/spread of various diseases. While most of them are the ones where the symptoms are usually considered to be harmless in about 90% of the cases like cold, fever, cough etc. Proper medication is usually avoided in such cases by the patients and they prefer taking some common general-target medicines line paracetamol, aspirin, cetirizine etc. Such medicines won't cure the disease, and if not treated in time, it can be dangerous for the patient. Smart disease detection and diagnosis systems can contribute significantly towards developing a more readily available and efficient medical infrastructure. To help provide people with the appropriate diagnosis of the disease, this project presents a competitive real-time system that would require the sufferers to input the primary reports like X-rays, MRIs etc. along with some medical parameters and would inform them about the disease they	Team work, Time management, coordination, machine learning, machine model deployment, machine learning model tuning, front end development, backend development	Python, Tensorflow Keras, Flask, Google Colab, Kaggle Notebooks, VSCode, OpenCV, Numpy, Pandas, scikit-learn, matplotlib, seaborn, HTML, CSS, MacOS, Windows 10
58	CSE-I-58	First Shift	08114802718 RISHABH JAIN	08014802718 RISHABH	08714802718 ROHIT KUMAR	Ms. KAVITA SAXENA	Application Based	Multiple face mask Detection	Software Based Only	The corona virus COVID-19 pandemic is causing a global health crisis so the effective protection methods is wearing a face mask in public areas according to the World Health Organization (WHO). The COVID-19 pandemic forced governments across the world to impose lockdowns to prevent virus transmissions. Reports indicate that wearing facemasks while at work clearly reduces the risk of transmission. We will use the dataset to build a COVID-19 face mask detector with computer vision using Python, OpenCV, and Tensor Flow and Keras. In our proposed system we will use live video stream and finally in output it gives alert sound(buzzer) when someone not wearing mask.Our goal is to identify whether the person on image/video stream is wearing a face mask or not with the help of computer vision and deep learning.	Team work, Deep Knowledge about ML, implementation of project in smartphone,working in limited period of time.	DeepLearning, Computer Vision, OpenCV, Tensorflow, Keras.
59	CSE-I-59	First Shift	10114802718 TEJASV SINGH SIDANA	09314802718 SARANSH SINGHAL	09114802718 SACHIN JINDAL	Ms. NEELAM SHARMA	Research Based	Machine Learning Based Predictive Maintenance	Software Based Only	Recent developments in maintenance modeling fueled by data-based approaches such as machine learning (ML) have enabled a broad range of applications. Maintenance is a crucial activity in the industry, with its significant impact on costs and reliability, and is immensely influential to a company's ability to be competitive in low price, high quality, and performance. This paper aims to perform predictive maintenance using machine learning techniques. Three different datasets are chosen in this study for our objective. The performance of different machine learning algorithms for the task of predicting machine failure is analyzed and compared to find the best approach for the particular problem. Different scaling and feature selection strategies were used in order to study their effect on the performance of various algorithms.	We were able to identify the importance of predictive maintenance in the industry while working on our research paper. This research has broadened our understanding of machine failures and maintenance strategies applied in various industries by allowing us to conduct a thorough examination of the majority of existing maintenance techniques. We were able to study various existing machine learning algorithms and evaluate, compare their performance for the task at hand, i.e. predictive maintenance. We recognized the significance of studying and analyzing existing literature in order to improve our work on our paper. We determined the best ways to present the results of our experiment and draw a conclusion.	Google Colab, Python , Jupyter Notebook , Google Docs ,MS Word , Google sheets ,MS Excel.
60	CSE-I-60	First Shift	44214802718 BHOR SHARMA	44714802718 CHIRAG BAJAJ	45514802718 SHREENIVAS SINGH	Dr. SANDEEP TAYAL	Research Based	Crop prediction using ML	Software Based Only	With the impact of climate change and the new farm bills that have been passed in India, majority of the agricultural crops are being badly affected in terms of their performance over a period of last two decades. Predicting the crop yield well ahead of its harvest would help the policy makers and farmers for taking appropriate measures for marketing and storage. Such predictions will also help the associated industries for planning the logistics of their business. Various research have been done exploring the connection between large scale climatologically phenomena and crop yield. Crop prediction technology is used to predict the suitable crop by sensing various parameter of soil, and also parameter related to atmosphere. Parameters like area of crop production, temperature and pH scale are considered for the predictions of crop yield. Keywords—crop yield, temperature, area, pH, machine learning	Prediction of crops by using rainfall, ph, soil profile etc. As factors	Machine Learning

61	CSE-I-61	First Shift	10614802718 VARUN PAWAR	10514802718 VARUN DEV	06314802718 MAYANK CHAUDHARY	Dr. DEEPAK GUPTA	Application Based	Graphical Password Authenticator	Software Based Only	Background: Passwords are ubiquitous today on any platform, on possibly any website. But to remember so difficult passwords and that too on numerous websites seems daunting and therefore you can devise a project illustrating graphical password strategy. This will allow the user to set passwords in the form of graphical presentation in a certain pattern and later use that pattern to login o the system. Summary: Remembering numerous passwords from various different sites can be difficult for a user. So to provide some flexibility we can provide users a graphical password authentication system where instead of creating a password a user has to select graphical objects in a particular order to keep it as their password. Objective: : In this method, the user is required to select some images (let's say different chocolates) in a specific pattern (for example dairy milk is followed by 5 stars which is in turn followed by KitKat and so on). Next time the user tries to log in, the images would have been shuffled, but the user will be required to follow the same pattern which was used initially. Every time the user will have	CORS Django Git Hub React JS Hash Salt Debugging Encryption Event loop Optimzation CyberSecurity Scalable code Api authorization Hacking Techinques Django Rest Frame Work Django JWT authentication Asyncronous programming	Django , Django Rest Framework , React JS , simple JWT , KNOX , CORS HEADERS , VS CODE , PyCharm ,Linux , Git Hub
62	CSE-I-62	First Shift	03014802718 DEEPANSHU AGARWAL	02614802718 BHUPEN PAL	06414802718 MIHIR SOOD	Ms. NEELAM SHARMA	Application Based	OCR Captcha for Visually Impaired Users	Software Based Only	Making a different way for Filling captcha which is secured and safe from ROBOTS	Machine Learning, How ML model Works, How to Optimize models, Data Cleaning	Python, VS, Jupyter Notebook, Scikit Learn,
63	CSE-I-63	First Shift	36814802718 YASHIKA KHURANA	36414802718 SHRUTI GUPTA	20814802718 ADITI SOOD	Dr. DEEPAK GUPTA	Research Based	LEVERAGING COMPUTER VISION FOR GENDER, AGE AND ETHNICITY PREDICTION	Software Based Only	With science and technology taking quantum leaps everyday, a lot of progress has been made in the field of deep networks and computer vision. Identifying various features from input face images to draw meaningful information and critical insights has garnered much interest. However, these results lack sufficient accuracy due to the convoluted network architecture and complexity of time regarding the weight suboptimal solution. This paper aims to create a model that predicts age, gender, and ethnicity using the UTKFace Dataset. Post the data cleaning and label extraction, various neural network architectures were trained and the performances of these models were evaluated to conduct a comparative analysis. The study demonstrated that ResNet-50 will facilitate the creation of a robust and efficient model for the purpose of gender prediction while EfficientNet B0 could be deployed to enhance the performance of age and ethnicity prediction.	We researched about the various neural network architectures and compared them on the basis of evaluation metrics (testing acc., precision, recall, F1 score, specificity etc.). We also learned about data pre-processing, label extraction & general data cleaning.	Google Colab, Keras, Tensorflow
64	CSE-I-64	First Shift	04814802718 HITESH GARG	01714802718 ANUJ JAIN	02714802718 CHANDAN RANGA	Ms. KAJOL DAHIYA	Research Based	Cryptanalysis of Cipher Texts using ANN	Software Based Only	We look forward to performing cryptanalysis for a comparative analysis of the feasibility of using this modern AI based analysis on various ciphers ranging in complexity. The encryption algorithms range in complexity, from the less complex ones like caesar cipher, XOR cipher to complex ones like DES, 3-DES, and AES.	->Develop plans with teammates to achieve the project's goals ->Identify links and dependencies, and schedule to achieve deliverables ->Allocate roles with clear lines of responsibility and accountability. ->Tackle more complex problems than they could on their own. ->Delegate roles and responsibilities. ->Share diverse perspectives. ->Pool knowledge and skills. ->Hold one another (and be held) accountable. ->Develop new approaches to resolving differences. ->Establish a shared identity with other group members. ->Find effective peers to emulate. ->Develop our own voice and perspectives in relation to peers.	Python, NumPy, TensorFlow framework, Keras API, Pycryptodome, Termplot
65	CSE-I-65	First Shift	04014802718 HARDIK BACHHAN	04714802718 HIMANSHU SINGH RAJAWAT	07914802718 RAJAT GOEL	Dr. ANKITA GUPTA	Research Based	Predicting the Averse Events Following the Receipt of mRNA based COVID-19 vaccines	Software Based Only	In December 2020, the US Food and Drug Administration (FDA) issued the Emergency Use Authorization (EUA) for two mRNA-based COVID-19 vaccines as 2-dose series. From following the implementation of vaccination, local and systemic adverse reactions after receipt or the vaccines began to be reported. Although rare, some uncommon allergic reactions can develop and lead to death or disability. Continued monitoring and assessing adverse events of these vaccines outside of trial settings could improve our understanding of the safety issues and contribute to the decision-making in terms of the implementation and administration of vaccination. Our goal is to make use of the VAERS data to predict the onset time of adverse events and recognize the key predictors to inform the medication preparation after vaccination and identify the high-risk population. We use the baseline characteristics of patients as inputs, and used different algorithms to predict the onset time.	The purpose of machine learning is to discover patterns in your data and then make predictions based on often complex patterns to answer business questions, detect and analyze trends and help solve problems. This project helped us understand how to evaluate models generated from data and how to apply the algorithms to a real problem, optimize the models learned and report on the expected accuracy that can be achieved by applying the models.	R studio R Google Colab Intel i5 CPU Nvidia 2GB GPU 8GB RAM Modules

66	CSE-I-66	First Shift	03914802718 GOVIND DHINGRA	03814802718 GAGAN MITTAL	04214802718 HARSH VARDAN	Ms. SAKSHI JHA	Research Based	SECURED DOCUMENT STORING USING BLOCKCHAIN	Software Based Only	we are proposing a secured decentralized document storing and sharing option in which we are using IPFS which enables us to store large files and put immutable, permanent links in transactions. Our solution uses Huffman compression for file size optimization and RSA encryption is used for data security purposes.	1. Learned about Decentralized & blockchain system 2. Learned about different tech stack: IPFS, solidarity 3. Learned about how to effectively communicate in a team project	Metamask, Vscode, rinkeby
67	CSE-I-67	First Shift	41214802718 PRABAL SHARMA	41114802718 SANCHIT MANCHANDA	41314802718 SIMRANJEET SINGH	Mr. ALOK KR SHARMA	Application Based	Network Traffic Analyser	Software Based Only	Detect anomalies in a network	Packet detection/analysis in a network Clustering algorithms	Python
68	CSE-I-68	First Shift	00414807219 MOHD ARIFULLAH	01014807219 FAIS KHAN	01214807219 YASH HANDA	Mr. ALOK KR SHARMA	Research Based	DRIVER DROWSINESS DETECTION SYSTEM	Software Based Only	Driver sleepiness, alcoholism and carelessness are the key contributions in the accident scenario. The fatalities, associated expenses and related dangers have been recognized as serious threat to the country. All these factors led to the development of Intelligent Transportation Systems (ITS). ITS includes driver assistance systems like Adaptive Cruise Control, Park Assistance Systems, Pedestrian Detection Systems, Intelligent Headlights, Blind Spot Detection Systems, etc. Taking into account of these factors, the driver's state is a major challenge for designing advanced driver assistance systems A countless number of people drive on the highway day and night. Taxi drivers, bus drivers, truck drivers and people traveling long-distance suffer from lack of sleep. Due to which it becomes very dangerous to drive when feeling sleepy. The majority of accidents happen due to the drowsiness of the driver. So, to prevent these accidents	We were able to understand different deep learning algorithms like: 1. Linear Regression 2. Stochastic Gradient Descent 3. Ada Optimizer Also we learned different software tools: Anaconda, OpenCV, Keras, Tensorflow Finally we learned about the drowsiness problem and gave a solution for this.	Language: Python Software Tools: Anaconda, OpenCV, Keras, Tensorflow, Pygame
69	CSE-I-69	First Shift	00814807219 ASGHAR MEHDI	05614802718 KESHAV KUMAR MITTAL				Desaster management	Software Based Only	This project presents a system to classify messages that are sent during disasters. There are 36 pre-defined categories, and examples of these categories include Aid Related, Medical Help,	What to do and how to get help in disaster	Machine learning.
1	CSE-II-01	Second Shift	35414802718 ISHAAN KALRA	02496402718 PRANSHUL AGGARWAL	01596402718 KUNAL KUSHWAHA	Dr. POOJA GUPTA	Research Based	OPPORTUNITY RECOMMENDATION SYSTEM	Software Based Only	The proposed project aims to find relevant opportunities for the users given in a dataset based on the opportunities available in the training dataset. This project will use machine learning techniques like K- Means[1] for identifying similar opportunities and clustering them as well evaluating the user data based on their discipline and qualification and assigning them to a relevant cluster. To achieve clusterization thedatahasbeenconvertedfromtextualformtomathematicalform using Natural Language processing (NLP)[2] and vectorisation techniques such as Term Frequency-Inverse Document Frequency (TF-IDF)[4]. For vectorisation purposes glove6b50dtxt[3] or gloVe was used for weights. To make prediction a concept similar to that of collaborative filtering[5] was used,to find the most relevant opportunities a confidence metric was generated for each opportunity for each user, which was a combination of observing the relevant clusters, location of opportunity, location of residence, and similarity between the discipline as well the qualification of the user and the opportunity which was computed using cosine similarity, which was implemented using Spacy library.	The proposed model has been implemented in an anaconda environment on the local machine using jupyter-lab. For implementation, first we collected the data through scraping which led to some inconsistencies with the data. The data collected was around 5500 opportunities which had features like description, qualification, type of opportunity (such as job, competition etc), location of opportunity, eligible countries, funding, Only some of the features were judged on the basis of relevancy of feature while clustering and predicting. To clean this data, pandas package was used and to fill non available cells for a particular instance it was dropped. After cleaning, a featured engineering dataset was created where the columns with discrete values were transformed into numerical values and for features like description , vectorisation was done. Then the number of efficient clusters was observed using the elbow method both with or without the description vector which gave us our K as 10.	Numpy NumPy is the fundamental package for scientific computing in Python. It is a Python library that provides a multidimensional array object, and an assortment of routines for fast operations on arrays, including mathematical, logical, shape manipulation, sorting, selecting and much more. Pandas Pandas is a Python package providing fast, flexible, and expressive data structures designed to make working with "relational" or "labeled" data both easy and intuitive. It aims to be the fundamental high-level building block for doing practical, real-world data analysis in Python.

2	CSE-II-02	Second Shift	40396402718 HIMANSHI	40996402718 AYUSH AGARWAL	40196407218 SACHIN GIRI	Ms. KARUNA MIDDHA	Research Based	MOVING VEHICLE REGISTRATION PLATE DETECTION USING CV	Software Based Only	Vehicle registration plate detection is a system which will detect the registration plate of a vehicle from an image/video frame and further detect the text on the registration plate with OCR. So this project includes two main processes which are: Detection of Registration plate. Extracting Text from Registration plate image. For Registration plate detection, there are plenty of deep learning based convolutional neural networks available such as YOLO, SSD with resNET, Faster-RCNN etc. out of which we choose the latest YOLO(You only Look once), YOLOV5. Why? Because YOLOv5 is found to be the perfect balance between speed and accuracy hence this is the optimal model to use for real life scenarios. Similarly, to extract the text out of a number plate image there are multiple OCR available like Amazon Textract, Microsoft's cognitive service, Google cloud vision, EasyOCR, Keras-OCR, tesseract etc. Easy OCR is the simple, free and lightweight library to use as compared to others still we choose to go with the tesseract because EasyOCR is good enough for organized texts like PDFs, receipt	After doing this project we learnt about the problems which can be easily solved by implementing computer science approaches, we learnt about how we can solve actual problems from our learning. and after choosing and realizing about the technology we need to use in the project, we started learning them and the pressure of doing the project made us complete the learning part at a faster pace than in general. We also learnt a lot about documentation in this project. We learnt and implemented software engineering concepts to plan things and visualize the workflow. We also learned a lot about Machine learning and computer vision. All these things helps us in our all over professional development	Jupyter Anaconda Yolo
3	CSE-II-03	Second Shift	03396402718 UTKARSH SRIVASTAVA	41896402718 MRINAL KOTHARI	35396402718 PARTH RASTOGI	Ms. AKANKSHA KOCHHAR	Application Based	Hyperion	Software Based Only	Network Metrics Analyzer (NMA) leverages Linux Kernel's eBPF capabilities to efficiently capture the data from the kernel space. Collect environment aware metrics from any linux system. Network Metrics like TCP retransmissions, Req/sec, request latencies (p50, p75, p90, p95, p99, p99.9), TCP Acceptance, TCP Connections, TCP Life analysis, etc. NMA uses Hyperion internally which also makes it extremely flexible and extensible. NMA provides an extremely user-friendly web based UI which helps monitor all kinds of data streaming through the Hyperion Core.	Our team were able to understand the importance of teamwork and collaborate together to create a protect that is required and capable to fill the demand in market with providing better solutions to tech industry. Problem solving skills were improved and gain knowledge to create a project from scratch.	Kubernetes Frontend Technology like React, Typescript Rust gRPC REST
4	CSE-II-04	Second Shift	02996402716 RISHAV RAJ	00296407218 AKSHAY BHARTI (YB)		Mr. SAURABH RASTOGI	Research Based	Remote Access Tool	Hardware and Software Based	A Remote Administration Tool or RAT is software that gives a person full control of a tech device, remotely. The RAT gives the user access to your system, just as if they had physical access to your device. With this access, the person can access your files,delete files, download files And create files. RATs can be used legitimately. For example, when you have a technical problem on your work computer, sometimes your corporate IT guys will use a RAT to access your computer and fix the issue. Any computer with an Internet connection, TCP/IP or on a Local Area Network can be remotely administered. For non-malicious administration, the user must install or enable server software on the host system in order to be viewed. Then the user/client can access the host system from another computer using the installed software	We got to learn how we can implement our combined vision and views in one goal, and make efforts as a team that made us enhance our skills by helping, healthy criticism, sharing our knowledge. when we decided we are going to make A remote access tool using python. We first had to decide how to break it to down into smaller parts and who gets to complete which part of it. We used modules that were new to us and we were not skilled at those so we were learning things simultaneously whilst making this project. We ran into quite a few problems so we had to scratch and search the internet and seek help from our fellow programmers. By the end we got to learn how to Gather information, analyse that information and seek solution from what we found and while doing these two things we got to understand the importance of communication and teamwork.	Python, Reverse shell, Socket module and OS module.
5	CSE-II-05	Second Shift	01496402718 KASHISH TAYAL	01696402718 MANAV DIWAN	03296402718 SHYAM TAPARIA	Ms. SAKSHI JHA	Research Based	Subsequent Frame Prophecy	Software Based Only	Future frame prediction project aims at predicting future frames of a video given previous frames. If 'n' frames are given into the model (n being 19 in our case) our model predicts the n+1th frame in the sequence (i.e. 20th frame). The model use for prediction is a deep learning model - GAN (Generative Adversarial Model). The Generative adversarial model has 2 components: the generator which generates the 20th frame and the adversary (Critic) which compares the outputs of the generator with real outputs. The purpose of this comparison is to train both the generator and the critic in a cyclic fashion to the point where the generator can create almost real-looking outputs.	1) Developed an appreciation for what is involved in Learning models from data. 2) Understood a wide variety of learning algorithms. 3) Understood how to evaluate models generated from data. 4) Apply the algorithms to a real problem, optimize the models learned and report on the expected accuracy that can be achieved by applying the models.	Python, Numpy, Tensorflow, Keras, Matplotlib, OpenCV, Pandas, Torch
6	CSE-II-06	Second Shift	35196407219 AKSHIT DAHIYA	00196407219 SYED RAMISH JILANI	00596407219 SANDDEP BAJPAYEE	Ms. KAVITA SAXENA	Research Based	Disease Prediction using Machine Learning	Software Based Only	This project is an attempt to help one to predict the disease he/she is having through the symptoms and the correct readings of the bodily vitals needed. There are times when people keep on ignoring health issues due to high medical fees. This may lead to severe issues later and even death. If not covered by insurance, medical bills can be a menace. This website is an approach in reducing the effort of a normal person by estimating the kind of disease one has and its severity. We have designed a disease prediction system using multiple machine learning algorithms. Based on the symptoms, age, and gender of an individual, the diagnosis system gives the output giving the information about whether the user is suffering from that particular disease or not. According to the severity, some diet plans and some exercises which can minimize the effects of the disease to some extent are also provided. It provides a simple yet effective approach for predicting the disease, if the provided values of vitals are accurate. The user will experience a simple yet effective User Interface and pleasing design.	As our project was around Python and ML we learned to identify, analyze, and solve problems creatively through sustained critical investigation and analysing different ML algos. We also learned to integrate information from multiple sources and how to break complex tasks into parts and steps. And apart from project management and technical skills we learned the importance of working as team which includes the followings 1.Give and receive feedback on performance 2.How to handle conflicts between team members 3.Tackle more complex problems than we could on our own. 4.Hold one another (and to be held) accountable. Overall we learned a lot about real-life situations which come across while developing a project or working on a project as a team.	Software tool used-->Python scikit-learn~=1.0.1 seaborn~=0.11.2 joblib~=1.1.0 numpy~=1.21.2 pandas matplotlib gradio

7	CSE-II-07	Second Shift	00396407219 MUKUL KRISHNA	00496407219 JAI VERMA	00296407219 MOHD SHAHRUKH	Ms. DEEPTI GUPTA	Research Based	Predictive Analysis of overall player performance	Software Based Only	This is project which predict the final football player performance, by using we would choose which player is good for upcoming matches and which player is best for which position in ground	Advantages and disadvantages of Algorithms	Numpy, Pandas, SciPy, VS code, Jupyter
8	CSE-II-08	Second Shift	03496402718 VAIBHAV	35596402718 RISHAABH MITTAL	41296402718 SIDHARTH	Ms. KAJOL DAHIYA	Research Based	VISION BASED COMPUTER MOUSE CONTROL USING HAND GESTURE	Software Based Only	As the PC innovation ceaselessly develops to create, individuals are presently intrigued by little and little electronic gadgets. Progressively we are perceiving the significance of human registering association (HCI), and specifically vision-based motion and protest acknowledgment. In this project we are going to propose a novel approach that uses a video gadget to control the mouse framework (Mouse capacities). Signal acknowledgment empowers people to have the capacity to speak with the machine (HMI) straightforwardly and collaborate actually with no mechanical gadgets. Utilizing the idea of signal acknowledgment, it is conceivable to point a finger bearing shading tops at the PC screen so that the cursor will move appropriately to the development of the shading tops. This project proposes a vision based cursor control framework, utilizing hand signals bearing shading tops on the fingertip caught from a webcam. Today we are utilizing a mouse or a touchpad to control the PC mouse which requires physical contact with the gadgets. In this project, we are utilizing hand signals which require no physical contact other than shading tops with any gadget and we can work it from an expansive separation. This can be an exceptionally	Working of a mouse with just hand gestures without using the physical mouse.	MATLAB, machine learning, artificial intelligence
9	CSE-II-09	Second Shift	01296402718 JITMANEW	00996402718 HARSHIT	40496402718 VIKAS	Ms. ZAMEER FATIMA	Research Based	Personalized Automated Cancer Diagnosis	Software Based Only	The project revolves around classification of the cancer type based on gene mutations.	Got hands on experience of Natural Language Processing	Natural Language Processing, Google Colaboratory
10	CSE-II-10	Second Shift	40296402718 HARSH GOYAL	02596402718 RAVINDER	40196402718 PIYUSH	Mr. MOOLCHAND SHARMA	Research Based	Detection and Classification of Leukemia Using Smear Blood Images	Software Based Only	The purpose of the project is to show the potential of Artificial Intelligence for medical support systems such as diagnosis systems. Although the classifiers are accurate and show good results both on paper and in real-world testing, they are not meant to be an alternative to professional medical diagnosis. Developers that have contributed to this repository have experience in using Artificial Intelligence for detecting certain types of cancer.	1. Applied fundamental and disciplinary concepts and methods in ways appropriate to their principal areas of study. 2. Demonstrated skill and knowledge of current information and technological tools and techniques specific to the professional field of study. 3. Used effectively oral, written and visual communication. 4. Identified, analyzed, and solved problems creatively through sustained critical investigation. 5. Integrated information from multiple sources. 6. Demonstrated an awareness and application of appropriate personal, societal, and professional ethical standards. 7. Practiced the skills, diligence, and commitment to excellence needed to engage in lifelong learning.	Python 3.0, Tkinter, OpenCV, Pandas
11	CSE-II-11	Second Shift	03096402718 SHASHWAT SHARMA	01896402718 MONIKA CHAUHAN	40896402718 HARSH AGARWAL	Ms. PRERNA SHARMA	Application Based	TRON NFT Marketplace	Software Based Only	The NFT world has seen a lot of traction in recent times, and due to that major companies are moving towards this. So this project is our way to understand how this stuff works and have a marketplace that has less gas fees and is pocket friendly for people who just want to enter into this technology. NFT marketplace on TRON network targeted for users around the world to mint, trade, and auction NFTs, it is meant so that users can avoid the hefty gas fee they have to pay on the Ethereum chain and the other reason is to create an NFT marketplace using TRON network because there are very few in the market.	The major learnings we have from this project are: 1. We studied how blockchain works and how to interact with it to using smart contracts. 2. We learnt how to deploy smart contracts using tronscan. 3. We studied how to work with tronweb to interact with smart contracts using our web app. 4. We learnt how different blockchain protocols like TRC721(NFT's) work and how to use them. 5. We learnt how to use schedulers and cron jobs to run auctions and end them at proper time. 6. We learnt how to translate a design from figma design to code. 7. We studied how to deploy apps to vercel. 8. We studied how IPFS works as a storage for NFT's metadeta. 9. We studied how server side rendering works in next js, and how it improves the speed and SEO of react apps. 10. Learnt how to create responsive figma designs.	Solidity, web3, Next js, Node js, React js, Figma, Mongo db

12	CSE-II-12	Second Shift	41196402718 SHUBHAM SAPRA	35696402718 SHIVANSH TYAGI	35296402718 KUSH GOYAL	Ms. AKANKSHA KOCHHAR	Research Based	Comparison of Different Instances on Different Cloud-Based Workloads	Software Based Only	This document will help you dispel any concerns about employing a public cloud service provider and will establish the groundwork. By comparing these three cloud service providers (AWS, Microsoft Azure, and Google Cloud Platform) in terms of service, pricing, and benefits, as well as popular VM throughput augmentation approaches, this study emphasises the importance of processing, storage, and infrastructure as service factors that influence cloud service provider selection	The performance overhead challenges for scientific workloads in a cloud computing environment are analysed using the configuration scenarios. The researchers offer a method that combines the four strategies to boost virtual machine and container throughput and performance. Virtualization and containerization efficiency and throughput are discussed in a balanced manner. Based on the research and expertise, VMs or containers might be used to construct a cloud-based environment capable of delivering scientific workloads	AWS, Azure, GCP, Shell Scripting
13	CSE-II-13	Second Shift	01096402718 HARSHIT DANDRIYAL	00396402718 ABHISHEK KUMAR	01196402718 HRIDAM NAGAR	Ms. SHALLU JUNEJA	POC/Innovative idea	Automated Code Generation for Testing	Software Based Only	We wanted to make a developer tool that is not yet existing in the enterprise market but has a lot value considering the time and efforts goes into writing the tests. We are making a tool, that automatically generates the test code for the file, inspecting the react components and creating the test suite dynamically. It will save an enormous amount of time in the development lifecycle. It will be able to work with class as well as functional components and has power to build the suite on its own. It will also examine the component lifecycle, and adds edge cases to the addition. The react components and its written lifecycle can be broken down into test suites for easy testing without spending time writing it from scratch and making mistakes.	Unit testing in react using cypress and jest. React fiber: The new reconciliation method used in react version 16. Reconciliation makes it easier for React to parse and traverse them to build the DOM tree. The actual rendering happens later when traversing finishes. Devising a unique algorithm for Detection of component hierarchy.	VSCode, Jest, Enzyme, ReactJS,
14	CSE-II-14	Second Shift	03196402718 SHUBHANGI BHARGAVA	40796402718 ADARSH KUMAR		Mr. MOOLCHAN D SHARMA	Research Based	COLON CANCER PREDICTION USING MACHINE LEARNING TECHNIQUES	Software Based Only	Gene Expression is the process by which a living organism uses the information from a gene/DNA to synthesise a gene product, an observable trait. In this project we are going to predict whether the person is suffering from colorectal cancer by taking into considerations the gene expressions of the person using different machine learning algorithms because when a person has a certain cancer, they will likely exhibit alterations in the gene expression in a certain way. Advances in artificial intelligence resulted in large number of applications for analysis and prediction but still till date no unified rules or standards for colorectal cancer prediction exist in the world.	1. The model has been able to perform with an accuracy of 90% on out-of-sample test data with a training performed on a small dataset of 30 samples. 2. Increasing the sample size is likely to increase the prediction accuracy and there by aid better diagnosis, research and understanding of colorectal cancer. 3. The usage of data science for healthcare, genetic research and IOT is a wave that will disrupt and make human life better.	Operating System - Windows 7/10/11 Coding Language - Python/R Development Environment - Jupyter/ R Studio
15	CSE-II-15	Second Shift	41396402718 ASHISH TIWARI	02096402718 NITYA SINGH	00496402718 ANURAG VASHISHTH SINGH	Dr. NEERAJ GARG	Application Based	Controlling Screen Time for children	Software Based Only	Today, about 3 billion people are in lockdown around the world — and almost 90% of the student population is cut off from school. It's no surprise that a lot of children and their parents are increasingly connecting to the outside world through screens they might have once regarded with restraint or even reproach. With more than 130 countries restricting movement to contain the COVID-19 pandemic, it is time to recognize the internet as a critical tool for children's access to learning, play, entertainment and social interaction. In short, they might have a lot to gain from spending time in the digital space. online games before the pandemic, the figurative 'jump' into screens can also cause more concern or even distress. The goal is to devise a solution to digitally limit the screentime of children in a friendlier manner. Workout Application to Person and Person to Application Messaging and workflow that can be implemented using a laptop or separate device without the need for additional software.This project aims to digitally limit screen time in a friendlier manner. Such that parents can restrict as well as monitor their children's screen time.	We got to learn about how to collect system metrics and remotely expose several APIs to control a machine in order to establish screen limiter for children	Golang, Javascript, bpftrace
16	CSE-II-16	Second Shift	00696402718 AYUSH GARG	00896402718 HARSH PORWAL	01396402718 KARTIK KUMAR	Dr. POOJA GUPTA	Application Based	Web API Gateway	Software Based Only	An API stands for Application Program Interface. It is a set of instructions, protocols, and tools for building software applications. It specifies how software components should interact. The API Gateway is a server. It is a single-entry point into a system. API Gateway encapsulates the internal system architecture. It provides an API that is tailored to each client. It also has other responsibilities such as authentication, monitoring, load balancing, caching, request shaping and management, and static response handling. API Gateway is also responsible for request routing, composition, and protocol translation. All the requests made by the client go through the API Gateway. After that, the API Gateway routes requests to the appropriate microservice.	1.)Web development has so much scope that we can build anything for the user. It can range from a basic website to a fully-fledged online shopping platform. 2.)The future scope of this project is that it has an inbuilt database maintaining system and security of the data for the industry. If we collaborate on our project with them then they can easily maintain a database of all the APIs so that we can give the user additional features like who is using that API and which API is giving errors.	1.)React 2.)PostgreSQL 3.)Spring Boot 4.)Postman

17	CSE-II-17	Second Shift	00196402718 AAYUSH PARASHAR	02296402718 PRAKHAR MAHESHWARI	00596402718 ARUN TELTIA	Dr. ASHISH KHANNA	Research Based	Classification of Brain Tumor using Advanced Deep learning	Software Based Only	Looking upon the advances in Deep Learning arena is surely promising and its amalgamation in the field of Biotechnology has become evident. Continuing from the existing models and ways of diagnosis for cancers especially Brain tumors, this paper recognizes the state-of-the-art methods that could significantly reduce the amount of time utilized in diagnosis and channel it towards the treatment. Knowing the fact that average survival rate of tumor patients is less than a year, every second plays a crucial role and each phase demands precision and accuracy. The Artificial Intelligence models outweigh the conventional methods that increases the time taken and the dependencies on factors that can't be controlled. Hence, deep learning models like SEResNet are included in this paper to introduce them into the day-to-day working and advocate their inclusion into the workplace. Careful considerations of the factor influencing the results, dedicated training and testing of the models and improving the current flaws or absence can definitely play a role in what we could call a life-saving decision.	This major project has helped a lot in specializing in various fields like strategic information gathering, articulate documentation, and proper implementation of theoretical approaches. Additionally, we got to know about the Pharmacology and biology while finding a good problem statement. We learnt about cancer, brain tumors known as glioblastoma and everything related to it. Moreover, it made us coherent with improving our researching abilities, improved our team bonding and getting the overall information about the intended topic even its flaws that might tip the scale of the balance. Technically speaking, it helped in gaining knowledge about Python and its various libraries as well as Deep learning concepts. Overall, it has made us more suitable candidates for becoming industry leaders.	•Python •Google Collab •Kaggle •Jupyter Jab •Google Cloud Platform etc.
18	CSE-II-18	Second Shift	02896402718 SAKSHAM TANEJA	35196402718 KARTIK GOEL	35496402718 PRASHANSA CHADHA	Ms. PRERNA SHARMA	Research Based	COMPARISON OF VARIOUS EVOLUTIONARY ALGORITHMS FOR FEATURE SELECTION IN HEALTHCARE	Software Based Only	Health technology research brings together complementary interdisciplinary research skills in the development of innovative health technology applications. Recent research indicates that artificial intelligence can help achieve outstanding performance for particular types of health technology applications. An evolutionary algorithm is one of the sub fields of artificial intelligence, and is an effective algorithm for global optimization inspired by biological evolution. With the rapidly growing complexity of design issues, methodologies and a higher demand for quality health technology applications, the development of evolutionary computation algorithms for health has become timely and of high relevance.	Carry out a substantial research-based project. Demonstrate capacity to lead and manage change through collaboration with team members. Learned different types of Evolutionary Algorithms to predict the best outcome. Analyze data and synthesize research findings. Report research findings in written and verbal forms.	Google Colab, Python, Machine Learning, Kaggle, Microsoft Excel.
19	CSE-II-19	Second Shift	02796402718 RITIK CHAUHAN	40596402718 RAHUL KHANDELWAL		Ms. KAJOL DAHIYA	Research Based	Computational Cloud Off-Loading	Software Based Only	Smartphones have started to serve as mini-computers. We are now witnessing huge dependency over mobile phones because of the increased ability of applications to serve our daily requirements with great efficiency and comfort. With the advent of android, which provides smartphones are very affordable, now 92% of world's population are using smartphones. Android has taken the place in smartphones that Windows once held with desktops: dominant market share. The remarkable growth of Android based devices lead to a wide domain of applications. We can access pretty much all the music, do shopping, book tickets, call cabs at our doorstep, meet romantic partners, and manage our diaries, documentation, payments and what not. Augmented reality is that apps are changing the way we interact with the world. Our dependency over these apps essentially creates a demand for continuous innovation in	Integration of knowledge and skills with other areas of lives, draw connections between coursework and other kinds of knowledge, planning ahead of time	VScode, Android Studio, Heroku cloud, Python, Java
20	CSE-II-20	Second Shift	42196402718 PRIYAM KUMAR SINGH	02696402718 RISHABH SHARMA	41796402718 HARSHIT SHARMA	Dr. ANKITA GUPTA	Research Based	COVID DETECTION USING X-RAY SCANS	Software Based Only	This project would present an approach using Convolutional Neural Networks to detect the presence of COVID-19 in a person using their chest X-ray image. It focuses on enhancing the preprocessing stage to obtain accurate and reliable results classifying COVID-19 from Chest X-ray images. It is worth noting that the dataset which would be used for this research would be much bigger than the ones used in previous works.	CNN, tensorflow, flask, etc	Jupyter notebook, vs code, python, html, css, kaggle, google colab
21	CSE-II-21	Second Shift	42096402718 KUNAL KALIA	01796402718 MILIND RATHEE	02196402718 PRADEEP KUMAR	Dr. ANKITA GUPTA	Research Based	STOCK MARKET ANALYSIS & PREDICTION	Software Based Only	Using LSTM and LSTM+CNN for financial analysis of current and past data trends that might help investor & traders to gain an edge in the market to make informed decisions	Learnt and compared the LSTM and LSTM+CNN models	Tensorflow, Google Colab, Python