PRINCIPAL'S MUSINGS

With the impeding radical redesign of the futuristic Industrial 4.0 driven by Artificial Intelligence and its allied artefacts, the department of Artificial Intelligence & Data Science was established in the year 2020. Thadomal Shahani Engineering College's newly added department has been established with the goal of training students as leaders and researchers in the fields of Artificial Intelligence and Data Science through world-class infrastructure, curriculum, and comprehensive hands-on experience through industry connect programs. The department focuses on creating core competencies in the fields of Artificial Intelligence, Data Analytics, and looks forward to fully embracing quantum computing to be a part of enormous change in the way people live in the future.

The department's vision is to contribute to further the cause of the Nation, which is in the process of emerging as a total solution provider in the realm of Artificial Intelligence driven Business solutions, and exhort the student to remain focused to develop high proficiency in coding and to make each new day a veritable goldmine of new research avenues. The mission of the department includes equipping students with interdisciplinary skill sets to perform intelligent data analysis which in turn provides dynamic and promising careers in emerging technologies.

Having a bachelor's degree in artificial intelligence and data science shall not only open up opportunities to exciting career paths but will also enhance their critical thinking, and problem-solving abilities and initiate them to build creative solution processes based on intuitive/imaginative solutions at a very early stage. Our goal is to create AI &DS engineers embedded with the spirit of professionalism and remain focused on competing in the global marketplace by understanding diverse markets and cultures. This new TSEC branch, B.E. in Artificial Intelligence and Data Science, aims to produce a new batch of graduate students who will be distinguished by intellectual/emotional and spiritual quotients, as enterprises all over the world heavily rely on cutting-edge technology systems and to man the last miles of these systems.

-Dr. G.T. Thampi

FROM HOD'S DESK

The Artificial Intelligence & Data Science Department at Thadomal Shahani Engineering College stands out as a beacon of excellence within Mumbai University. The field of Artificial Intelligence is undergoing a profound transformation, with literature and practices evolving at an unprecedented rate, leading to a reinvention of methodologies and approaches. In response to this dynamic landscape, there is a pressing need for the complete restructuring of digital solutions in business and industrial processes, leveraging intelligent systems.

Across industries worldwide, there is a concerted effort to undertake large-scale projects aimed at radical modifications of enterprise software systems. This transformation is fueled by the integration of cutting-edge Artificial Intelligence techniques with robust Data Analytics methodologies.

For individuals with a passion for exploring nascent technologies in the realm of computer science and digital technology, particularly those with a knack for navigating mathematical complexities, our newly established 4-year degree program in Artificial Intelligence and Data Science offers an unparalleled opportunity for intellectual growth and professional advancement.Our program not only provides a platform for academic excellence but also opens doors to a plethora of lucrative market opportunities. Join us on this journey to shape the future of technology and harness the power of Artificial Intelligence and Data Science to drive innovation and transformation on a global scale.

-Dr. Madhuri Rao

TSEC

ARTIFICIAL INTELLIGENCE & DATA SCIENCE

BATCH OF 2024

TSEC

ARTIFICIAL INTELLIGENCE & DATA SCIENCE

BATCH OF 2025

Division 1

TSEC

ARTIFICIAL INTELLIGENCE & DATA SCIENCE

BATCH OF 2025

Division 2

ABOUT US

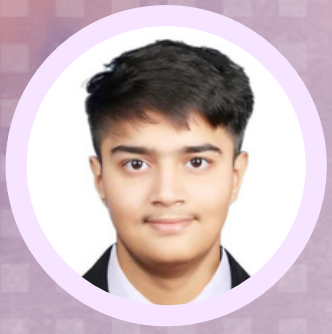
MEET THE TEAM

GOYAM KUMAR HEMANT JAIN

DESIGNER IN CHIEF

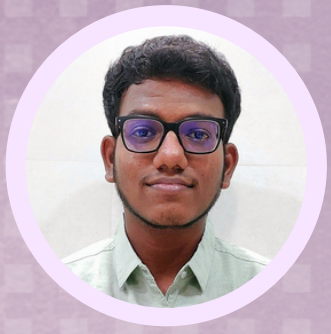
VRINDA BUNDELKHANDI

EDITOR IN CHIEF



TUSHAR KHATRI

DESIGNER



GAURANG PATYANE

DESIGNER

KRESHA MEHTA

EDITOR

SHRISTI SHETTY

DESIGNER

SURYAPRATAP YADAV

DESIGNER

KEVAL MAJITHIA

EDITOR

TEACHER IN-CHARGE

DR. MADURI RAO

CO - CONVENER

PROF. MONICA G. TOLANI

CO-ORDINATOR

FACULTY MEMBERS

OUR FACULTY

Dr. Madhuri Rao
Designation: Professor and Head of Department
Qualification: Ph.D. (Technology) ,
M.E (Comp. Engineering) , B.E (Computer)
Experience: 25 years

Dr. Shirish Vichare
Designation: Professor Emeritus
Qualification: PhD (IITB), M.S (USA),
B.Tech (IITB),
Experience: 35 Years in Teaching, 10+ in Industry

Dr. Bhushan Jadhav
Designation: Assistant Professor
Qualification: Ph.D. (Technology) , M.E. (Computer Engg.) , B.E. (Computer Engg.)
Experience: 13 yrs

OUR FACULTY

Ms. Bharati Ingale
Designation: Assistant Professor
Qualification: Ph.D (Pursuing),
M.Tech. (IIT Bombay), B.E (Biomedical Engg)
Experience: 21 yrs

Mr. Naveen Vaswani
Designation: Assistant Professor

Qualification: PhD (Pursuing)

Experience: 18 Years

Monica G. Tolani
Designation: Assistant Professor, Placement Officer and Dean
Revenue Generation
Qualification: Ph.D. (Pursuing)
Experience: 5.9 yrs

OUR FACULTY

Ms. Vijal Jain
Designation: Assistant Professor

Qualification: ME (IT)
Experience: 7 Years

Ms. Himani Deshpande
Designation: Assistant Professor
Qualification: Ph.D. (Computer) (Pursuing)
Experience: 7 yrs

Ms. Saloni V Dhuru
Designation: Assistant Professor
Qualification: M.E. (Computer), B.E. (Information Technology)
Experience: 2.7 Year

OUR FACULTY

Ms. Meenu Bhatia
Designation: Assistant Professor
Qualification: M.E (Computer Engg.)
Experience: 2.5 yrs

Nikita U. Raichada
Designation: Assistant Professor
Qualification: ME (Computer Engg.) , BE (Computer Engg)
Experience: 2.5 Years

ABOUT US

B. E. in Artificial Intelligence and Data Science (AI &DS) is a four-year full-time undergraduate program with the skills to perform intelligent data analysis and impart knowledge of advanced innovations like artificial intelligence, data science, machine learning, deep learning, and natural language processing. The major focus of this program is to sensitize students with statistical, mathematical reasoning, knowledge discovery, affective skills, psychomotor skills, and visualization skills. This program started with an intake of 60 in the year 2020 and the intake is increased to 120 from the academic year 2021-22.

The Department of AI and DS was established in the year 2020 with highly qualified senior faculty with doctoral degrees. This newly added department of TSEC has been set up with the goal of training students as leaders and researchers in the fields of Artificial Intelligence & Data Science with world-class infrastructure, curriculum and comprehensive hands-on experience through industry connect programs. Learners aspiring to get exposed to nascent technologies in the realm of computer and digital technology with an aptitude for tracking mathematical complexities shall aspire to join this 4 years degree program in AI and DS which is getting established in the current year. It is an excellent opportunity to satisfy intellectual ego and massive market opportunities.

Vision

Transcending the process of integrating intelligence to Technology Products and Processes by architectural and algorithmic solution-building procedures resulting in autonomous entities which shall surpass collective human intelligence

Mission

- ***Engage learners to develop competency in algorithmic approaches in resolving complexities of real-time problems.***
- ***Help pupils to develop competency in creative and architectural solution-building processes for building efficiencies***
- ***Initiate the learners to intuitive/creative solution-building processes as a complimentary skill set***
- ***Scaling up the process of creating digital learning content in the realm of AI & DS underpinning the theories of cognitive science and virtual / Augmented reality techniques***
- ***Design and create a supply chain of human capital with a high degree of intellectual/ emotional and spiritual quotient to man the evolving National economies***

TESTIMONIAL

TE
TESTIMONIAL

As a student of AI & DS engineering, I have been amazed by the depth and breadth of knowledge that I have gained through this 4-year AI&DS program. From machine learning and deep learning to natural language processing and computer network, the program has equipped me with the tools and techniques needed to tackle some of the most complex challenges facing our society today.

In addition to technical skills, the program has also helped me improve my soft skills, particularly in the areas of presentation and communication. Through various assignments, group projects, and presentations, I have had the opportunity to hone my ability to articulate complex concepts clearly and concisely. I have also learned how to effectively collaborate with my peers, manage my time, and handle feedback and criticism.

Overall, I can confidently say that my AI & DS engineering program has helped me become a more well-rounded, confident, and capable professional. I am excited to continue exploring the frontiers of AI and DS, and I know that the skills I have gained through this program will serve me well in my future endeavors.

-Vedant Kadam

TSEC has been a great contributor to the development of my personality. I have not just established my leadership, time management, and collaborative skills but also have been able to advance these skills. The professors here make the college what it is today. With an attitude of being ever ready to help, and not only delivering classroom teachings, but they are also the pillars of the learning gained from this esteemed college and this is a treasure for life. Our department conducted various activities every month, which strongly built our skills and collected a lot of achievements. Being the president of the department with the huge support of professors and students let me achieve my milestones. The placement cell provides a lot of training and development to achieve a good job, the 4-year AI&DS degree college opens the door to success and the faculty holds it for us, we enter through the door and achieve the fruit of success.

-Goyam Kumar Hemant Jain

I attribute my success as a topper in the third year semester 5 in Artificial Intelligence and Data Science department to the support, encouragement, and guidance provided by the faculty and staff of the department. The professors in AI & DS department are extremely knowledgeable and passionate about their fields. They create a positive learning environment that encourages students to ask questions, share ideas, and explore new topics. In addition to the faculty, the department offers a range of resources and opportunities to enhance students' learning experiences. I am proud to have been a part of this department, and I am grateful to the department for providing such an outstanding educational experience.

-Dhruvi Rathod

The Artificial Intelligence and Data Science department has helped me excel in my academic and professional pursuits.

The department faculty has been instrumental in providing me with a strong foundation in technical concepts, which has helped me become a topper in my class. The teachers are highly knowledgeable and go above and beyond to ensure that students receive the best education and support.

Apart from academics, the department has provided me with several opportunities to showcase my skills and compete in hackathons. These competitions have helped me develop my problem-solving skills and taught me to work effectively under pressure. I'm proud to say that I've won several of these competitions, and I owe much of my success to the training and support provided by my department.

Through the college placement cell, I secured an internship at JP Morgan Chase & Co., a leading multinational investment bank and financial services company. My department played a crucial role in preparing me for the internship by providing me with the necessary technical skills and professional guidance. This opportunity has been a game-changer for me, and it wouldn't have been possible without the support of my department.

In conclusion, I am extremely grateful for the education and opportunities provided by the Artificial Intelligence and Data Science department at Thadomal Shahani Engineering College. Their dedication to their students' success is unparalleled, and I feel privileged to be a student of this outstanding department.

-Khushi Ruparel

I am thrilled to share my experience with the Artificial Intelligence and Data Science Department at Thadomal Shahani Engineering College. Thanks to their exceptional guidance and support, I secured the semester topper position. The department's curriculum is well-designed and covers all the essential topics related to AI and data science. The faculty members are highly knowledgeable and experienced, and they use innovative teaching methods to make complex concepts easy to understand.
Moreover, the department regularly conducts workshops, seminars, and guest lectures by industry experts, which helped me gain valuable insights into the industry's trends and practices.

-Aryan Ruparel

As a student of the AI&DS department at my college, I have been thoroughly impressed with the department's commitment to providing a comprehensive education in the field of AI and data science. The faculty members in the department are highly knowledgeable and supportive, and always willing to go the extra mile to help students succeed. They have helped us develop the skills necessary to tackle real-world problems in the field of AI and data science.
The department is in its state-of-the-art computer lab, equipped with high-end PCs and GPUs, which are essential for machine learning and deep learning, and has increased my passion for ML.
In addition to the excellent facilities, the department has also organized various workshops, and industrial visits, and invited industry experts to share their knowledge with students. This has provided us with valuable insights into the latest trends and best practices in the field of AI and data science.

-Ved Gadge

As the department topper of second-year artificial intelligence and data science, I am grateful for my department's incredible support and guidance. From the beginning, I was welcomed into a community of passionate and dedicated individuals committed to helping me succeed. Throughout my academic journey, my professors and peers challenged me to push my boundaries and strive for excellence. Furthermore, my teachers also motivated me to be a part of various committees which helped me get used to an environment of collaboration and gain confidence.
I am incredibly grateful for the support and guidance provided by my department, which allowed me to achieve this academic excellence.

-Aayushi Chauhan

I am thrilled to write a testimonial for the Department of Artificial Intelligence and Data Science at Thadomal Shahani Engineering College (TSEC) for the exceptional support they provided during my academic journey.
Thanks to the rigorous curriculum and practical exposure, I gained a solid foundation in core engineering subjects, such as DSA and DBMS, which helped me secure an internship at Deutsche Bank, one of the most prestigious organizations in the banking industry.
Additionally, the Department went above and beyond to help me develop my extracurricular activities. The Department's committee provided numerous opportunities to network and gain valuable experiences.

-Fahad Charolia

TSEC- is a place where you can find an amalgamation of learning, fun, culture, literature, and many life preaching activities with utmost support from our department HOD, lecturers as well as Principal sir.
Students experience academic excellence with world-class infrastructure, excellent faculty is exceptional and teaching methodologies backed by practical skills and professional interface have given me the confidence to pursue my career ahead. The department encouraged students to explore and experiment, which allowed each student to find his/her niche of interest.

The AI&DS course brought clarity of thought, knowledge, confidence, courage, and conviction to me and my goals in the era of the information and technological world. The department provides a great opportunity to increase students' knowledge beyond their field of studies through a competitive multicultural environment. The friendly temperament of the professors and their readiness to always offer assistance has made me feel like a family. Their words, teachings, and incredible support augmented my values in my life.

-Vrinda Bundelkhandi

SE TESTIMONIAL

The AI&DS department is one of the latest departments in TSEC, despite this, it has proven to be one of the best.
All the labs which come within the department
are well maintained with all equipment's working properly.
The complete staff that is all the teachers and the support staff is incredibly cooperative and interactive.
The syllabus was completed in time with in-depth, interactive, and practical explanations for each topic

-Ishika Manghwani

The artificial intelligence and data science department in TSEC is an interesting career path to choose from, having helpful faculty and amazing staff for students who can reach them out for any problems to be solved.

-Yash Tailor

As a student in the Artificial Intelligence and Data Science department, I have had an exceptional learning experience.
The professors in our department are experts in their respective fields, and their teaching style is highly engaging and thought-provoking.
I never have to worry about my doubts as teachers are always available to offer guidance and support helping me achieve academic excellence.
The facilities and resources provided by the College are top-notch. The labs are equipped with the latest software and hardware, allowing us to work on projects and gain practical experience in various areas through the means of Mini Projects.
The unique thing I found in the department is how the strong network of industry partners provides us with valuable guidance in different fields including but not limited to cybersecurity, early start with ML, etc through weekly sessions. The department has not only helped me to develop my skills and knowledge but also provides me with many opportunities to grow overall.

-Mrinmai Kadu

The department is very good with great teachers, and every teacher gives individual attention to the children to clear their doubts.

-Meet Khatri

The AI&DS Department is a unit within a university that focuses on AI & DS research and teaching. It typically consists of faculty, students, and staff who all work together to advance in the field of AI&DS. The AI&DS Department typically offers academic courses and research opportunities related to AI&DS, as well as providing resources and support to students and faculty. It also creates a positive learning environment. Additionally, the department also hosts events and conferences related to the field.

-Surya Yadav

AI&DS Department - TSEC helps us to understand and shape our actions in order to achieve our goals. Our respected Principal and the faculty are very helpful and guide us in every possible manner. The experience and expertise of the teaching faculty is a cherry on the cake for all the students.

-Dipesh Todi

The Artificial Intelligence and Data Science Department provided me with an opportunity to enhance my skill and enriched my knowledge. The College has very interactive teachers who made everyone excited about the classes. I cherish each moment spent in College. The department gave me a platform to showcase my skills by including me in extra-curricular activities like arranging Techfest including workshops on app development and other AI-related games and quizzes, which was indeed a huge success. I have also been able to be the part of department coding committee 'Codetantra' as a junior committee member and due to this I have established my leadership, time management, and team skills. I would like to thank all the faculties for help and support throughout the semesters.

-Manjiri Khodke

The faculties here in the AI&DS department are good. They teach every concept very well and in detailed explanation is been given. The department faculties encourage you to participate in extra activities. They organize events such as Tech fests consisting of workshops and many more activities related to the curriculum.

-Varun Chavan

My department, Artificial Intelligence, and Data Science is an amazing department, which consists of teachers who are very helpful. The department has always provided us with the finest of everything they can. All teachers are heavily active in the activities of the department ensuring that no one has problems performing and bringing out their best versions. The teachers have always encouraged me to participate in a variety of extra curricular activities such as hackathons, which has helped me in developing my skills and personality in a variety of ways.

-Pankhudi Jaiswal

AI&DS department of TSEC consists of helpful teachers who's main aim is to impart knowledge to the students in an easy and understandable way.

-Pranay Sidhwa

With a wide range of research opportunities, and field projects, the department offers an exciting opportunity for students to explore the world of AI and DS. The faculty is highly experienced and knowledgeable, offering guidance and support to students on their journey to becoming experts in the field.

-Zaid Sunara

As the AI& DS Department of TSEC is the latest department it has been proven one of the best. Every student gets good opportunities, the curriculum was excellent. We have faculties, who are very educated, knowledgeable, and experienced. They are very helpful

-Priya Waghela

The AI&DS department has provided me with a number of opportunities to grow and explore my skills. I have always found a positive and healthy environment and the faculty members are highly supportive. Most of my doubts were cleared after the lecture get over.

-Manav Mangela

AI&DS department consists of very helpful and disciplined faculty, imparting knowledge and guiding students through every semester.

-Tanvi Mehta

The teachers are very helpful and interact with the students to clear their doubts. The department is great and the environment is positive throughout.

-Gaurang Patyane

The department faculty is very helpful and cooperative. The overall learning process is great and its an amazing experience being a part of the AI&DS department.

-Kaustubh Mhatre

Faculty members are undoubtedly helpful. The support and advice they have given us has been quite beneficial.

-Shristi Shetty

AI&DS department has knowledgeable and cooperative faculty which aids in the overall development of students.

-Vidhi Vaishnav

The AI&DS department is amazing and very helpful and supportive throughout the semester. The opportunities given are amazing.

-Muskan Tolani

OUR COMMITTEE

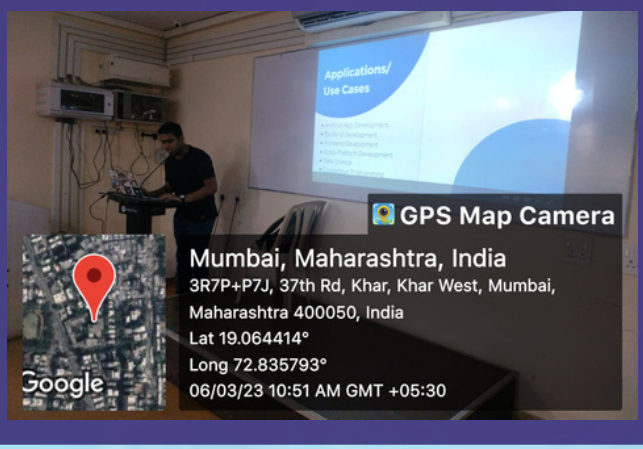

THADOMAL SHAHANI ENGINEERING COLLEGE
TSEC
Department of Artificial Intelligence and Data Science
Vision
Mission

EVENTS

TECHFEST 23

The hands-on sessions on Kotlin and React conducted by Tanay Kamath and Jayesh Pottabani were a valuable opportunity for attendees to learn about two popular technologies of modern software development. Kotlin is a concise, expressive programming language that is gaining popularity for Android development, while React is a JavaScript library used for building user interface

Through these sessions, attendees were able to gain hands-on experience building applications using both Kotlin and React, which will likely prove useful in their future endeavors in the field of software development. These sessions were a great addition to the department magazine showcase and showcased the department's commitment to providing students with valuable learning opportunities.



WORKSHOPS

TECHFEST'23

AISTRA was based on AI tools and brainstorming in which there were 3 rounds of competitions where teams were eliminated in each round and the top 3 teams at the end were the winners. Total 50 teams participated. Round 1 was CrossWits which was a crossword based on Artificial Intelligence and Machine Learning concepts.

Round 2 was BriskRisk, it was a head-to-head rapid-fire question round, where the teams were asked questions, if a team was unable to answer then they had to remove a piece from the Jenga tower, if the tower collapsed while removing the piece, the team was eliminated

Round 3 AISTRA Finale based on AI tools where there were 5 stages. Teams had to solve a problem based on logic, and technical knowledge to get a link for the main problem, Main problem involved the use of various AI tools to get the desired output as per the problem.

AISTRA

NEED FOR CODE

A 24 Hour hackathon which was organised by CodeTantra committee of department which was a 24 hour hackathon with domains like web/app, AI/ML, social cause.

Winners

FIRST

MINGW X64

SECOND

PIED PIPER

THIRD

RUNTIME ERROR

ONE WEEK STTP COURSES


THADOMAL SHAHANI ENGINEERING COLLEGE
Department of Artificial Intelligence & Data Science
ISTE APPROVED ONE WEEK STTP ON
FULL STACK WEB DEVELOPMENT
12th July – 16th July, 2022
Convener: Dr G.T. Thampi
Co-conveners:
Dr. Madhuri Rao
Dr. Bhushan Jadhav
Coordinators:
Prof. Vijal Jain
Prof. Himani Deshpande
AUDIOTRAK
Convener:
Dr. G. T. Thampi
THADOMAL SHAHANI ENGINEERING COLLEGE
CERTIFICATE OF INTERNSHIP
Lenovo

INDUSTRIAL VISIT

BOMBAY STOCK EXCHANGE

An industrial visit to the Bombay Stock Exchange (BSE) was an excellent opportunity for students and professionals alike to learn about the functioning of one of the oldest stock exchanges in Asia. Located in the heart of Mumbai, the BSE is a symbol of India's financial strength and is known for its transparency, efficiency, and innovation.

Students could witness the trading floor in action, understand the process of buying and selling stocks, learn about the various financial instruments traded on the exchange, and gain insights into the role of the BSE in India's economic growth. The visit was an eye-opening experience for those interested in the financial sector and provided an opportunity to interact with experts in the field, gain practical knowledge, and learn about the future of India's financial markets.

BSE

TE PROJECT ABSTRACT

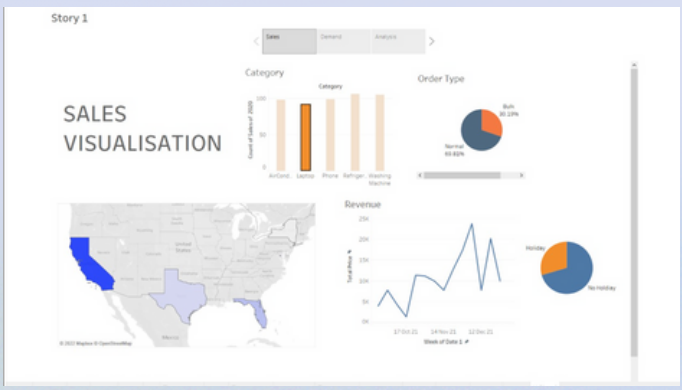
CRICKET PLAYER ANALYSIS

Created a dashboard for selecting cricket players by analyzing the data consisting of matches, runs, wickets, and average runs, and wickets. Cricket players were selected based on their stats, which were compared with those of other players as shown on the graph plotted using Tableau.

OMKAR PATHARE DHARMESH MISHRA HARSH SHUKLA KISHIN NENWANI

INVENTORY MANAGEMENT

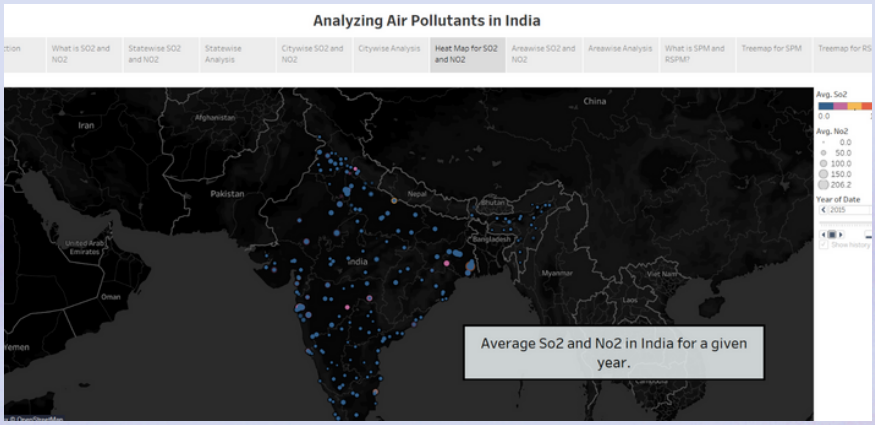
Our team has developed an inventory management dashboard utilizing Tableau for visualizing inventory status and sales forecasting. To achieve this, we implemented a stochastic model, specifically Autoregressive Integrated Moving Average (ARIMA), which utilizes past values to predict future inventory and sales trends. Our dataset comprises historical sales data, current stock levels, and distributor stock levels, allowing for a comprehensive analysis of inventory trends. By performing sales forecasting, we are able to predict the impact of sales on inventory levels and ensure that adequate stock levels are maintained to meet demand. The implementation of our inventory management dashboard has allowed for a streamlined approach to inventory management, providing businesses with valuable insights into their inventory and sales performance



TUSHAR MALANKAR YASH SHAH VASHESH JOGANI HRITHIK JAIN

ANALYZING AIR POLLUTANTS

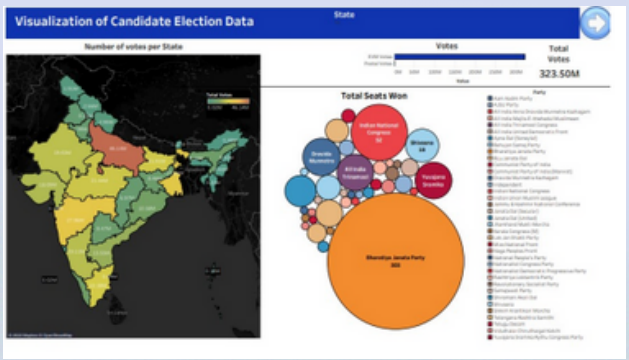
The goal of this project is to analyze and visualize various parameters that affect the Air Quality Index (AQI) of India. This involves collecting and processing data related to different factors such as pollutant concentrations, weather patterns, population density, and industrial activity. Using Tableau, we can create a data visualization dashboard that showcases these parameters and helps us identify patterns and trends in the data. The dashboard can also help us explore different visualization tools available in Tableau such as scatter plots, line charts, and heat maps.

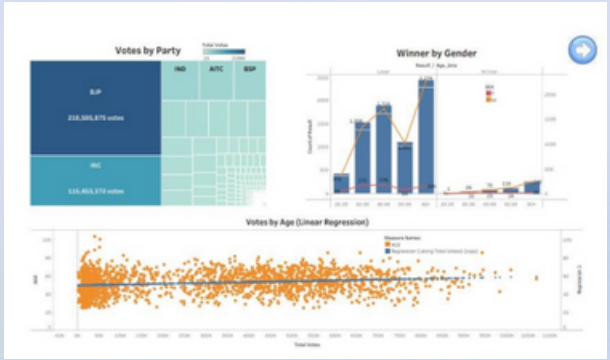


GIRISH RAJANI KHUSHI RUPAREL ARYAN RUPAREL ADITYA PATIL

INVENTORY MANAGEMENT

The goal of this project is to create a data visualization using Tableau software that highlights key insights and trends from election data. The data used in this project includes information on election results, voter demographics, etc.
Some of the potential insights that may be uncovered through this project include:
Patterns in voter turnout based on demographics such as age, race, and gender
Correlations between campaign spending and election outcomes
Regional variations in voting patterns and election results.
This project has the potential to contribute to a better understanding of election outcomes and the factors that influence them.

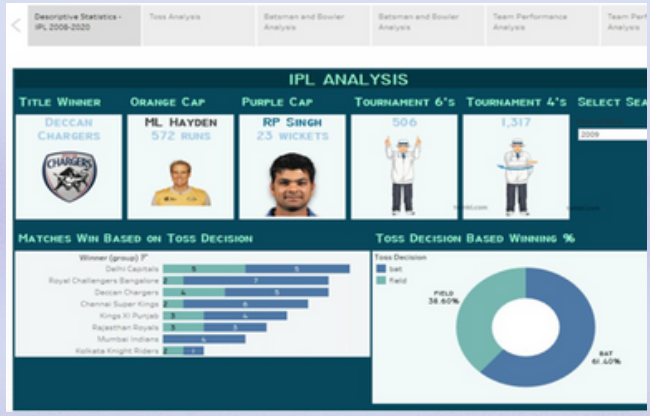




KALYAAN RAO BILAL SHAIKH CHIRAG SHUKLA GANESH VAISHNAV

IPL ANALYSIS

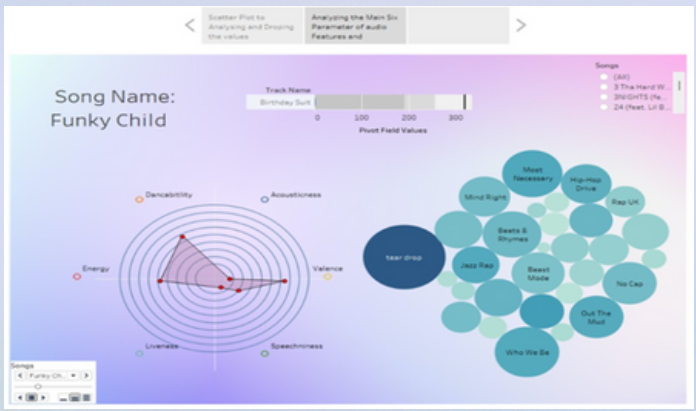
This Tableau project explores Indian Premier League (IPL) data from the years 2008-2020, analyzing key metrics for batting and bowler performance, team strategies, and overall winning strategies. The project's conclusions reveal that certain teams and players consistently outperform others in specific areas, such as run rates and wicket-taking ability, providing insight into what it takes to succeed in the IPL. The analysis also highlights the importance of player selection and team composition, as well as the impact of venue and other external factors on performance. Ultimately, this project offers valuable insights for coaches, analysts, and fans seeking to better understand and optimize their approach to the IPL.



DEEPTI GURNANI PARTH DHARMALE AYUSHI PRAJAPATI GAURAVI PATANKAR

MUSIC ANALYSIS

The main objective of this mini project is to visualize music parameters.
STREAMING PLATFORM ANALYTICS SYSTEM IN PYTHON, DATA VISUALISATION USING TABLEAU THIS WOULD MAKE IT EASIER FOR THE PERSON TO UNDERSTAND THE WHOLE PROCESS INVOLVED.
We have drawn inferences that what factors affecting popularity the most.
we implemented a Bullet chart, radar chart, and bubble chart in order to visualize based on parameters such as Danceability , Valence , Acousticness etc.



GOYAM JAIN TUSHAR KHATRI SARIS SINGH YASH DUDANI

EXPENSE MANAGER & SPENDING TRACKER

This project involves the creation of an Expense Manager & Spending Tracker Website using Tableau for data visualization. The objective of the project is to learn visualization techniques using Tableau. In this project, a variety of visualization techniques such as pie charts, bubble packs, density plots, and time series graphs have been used to gain insights into various aspects of the data. These visualizations have helped in understanding the categories of expenses and income, the dates of expenses and income, as well as the amounts of income and expenditure.

FAHAD CHAROLIA VANSHIKA CHAURASIA VED GADGE SOURAV MACWAN

INVENTORY MANAGEMENT

The goal of this project is to create a data visualization using Tableau software that highlights key insights and trends from election data. The data used in this project includes information on election results, voter demographics etc.

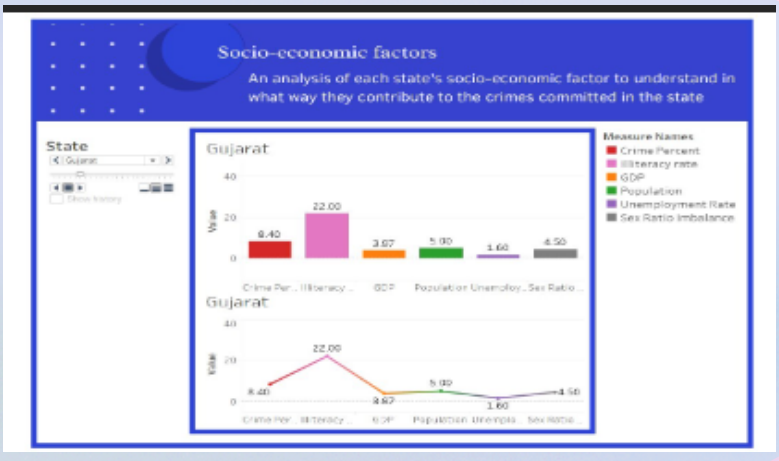
Some of the potential insights that may be uncovered through this project include:

Patterns in voter turnout based on demographics such as age, race, and gender

Correlations between campaign spending and election outcomes

Regional variations in voting patterns and election results.

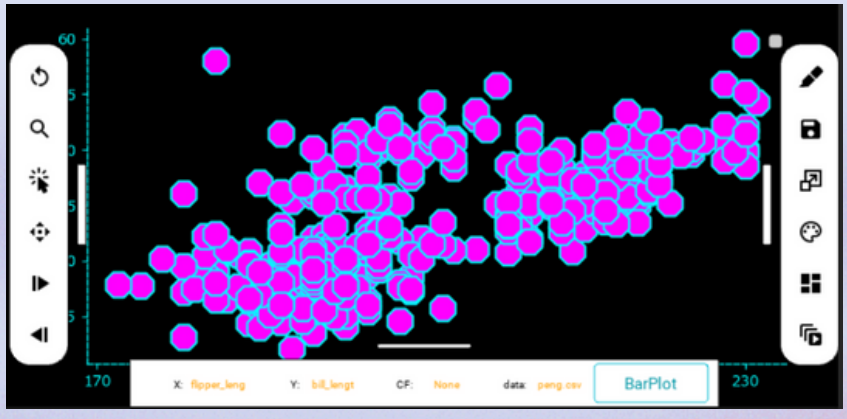
This project has the potential to contribute to a better understanding of election outcomes and the factors that influence them.



AARYAMONVIKRAM SINGH RIZ LALA RISHABH JAISWAL DIVYESH SHRINGI

DATA VISUALIZATION

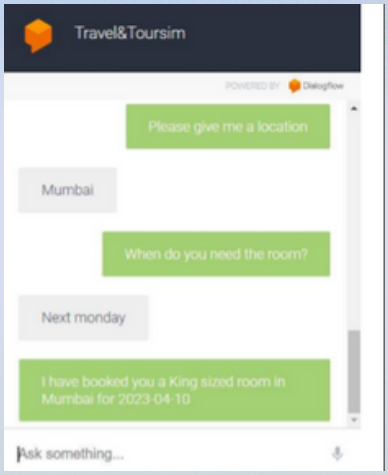
This data visualization app is a software application designed to help users present and analyze data in a visual format. These apps can be used in a variety of fields, including business, science, education, and more. The primary goal of a data visualization app is to provide users with an intuitive way to understand complex data by displaying it in a way that is easy to interpret. These apps often include tools for creating charts, graphs, maps, and other visualizations, as well as features for manipulating and filtering data. By using a data visualization app, users can gain valuable insights into their data and make more informed decisions based on their findings. This app also provide various interactive features such as zooming, panning, and filtering to enable users to explore the data and gain deeper insights.

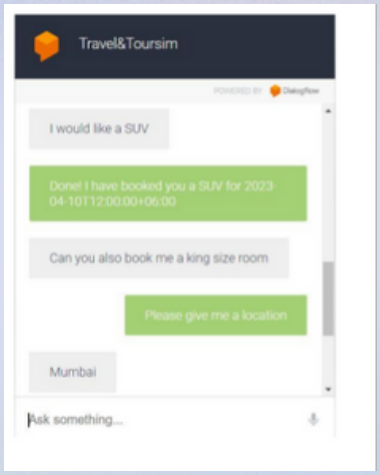


Mohit Narwani

AI-DRIVEN CHATBOT

The chatbot's features have been designed to enhance the user experience by providing a seamless travel booking experience. Overall, this project aims to demonstrate the potential of AI-driven chatbots in the travel & tourism sector and how they can improve travel planning and booking processes.

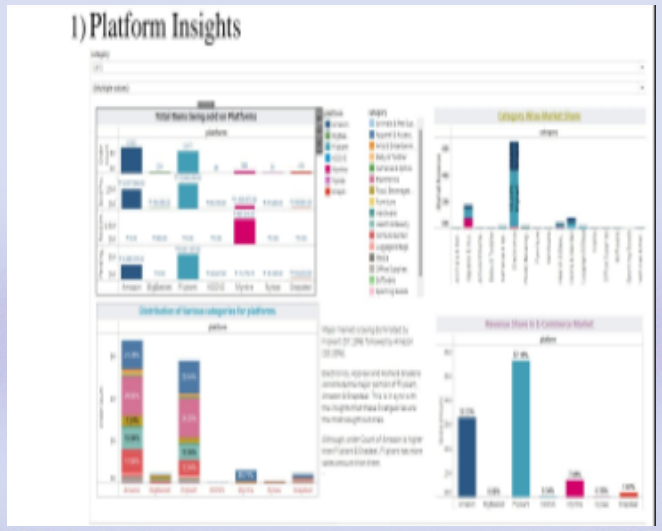




Ved Gadge, Goyam Jain, Vedant Kadam, Saris Singh

ECOMMERCE SUPPILERS

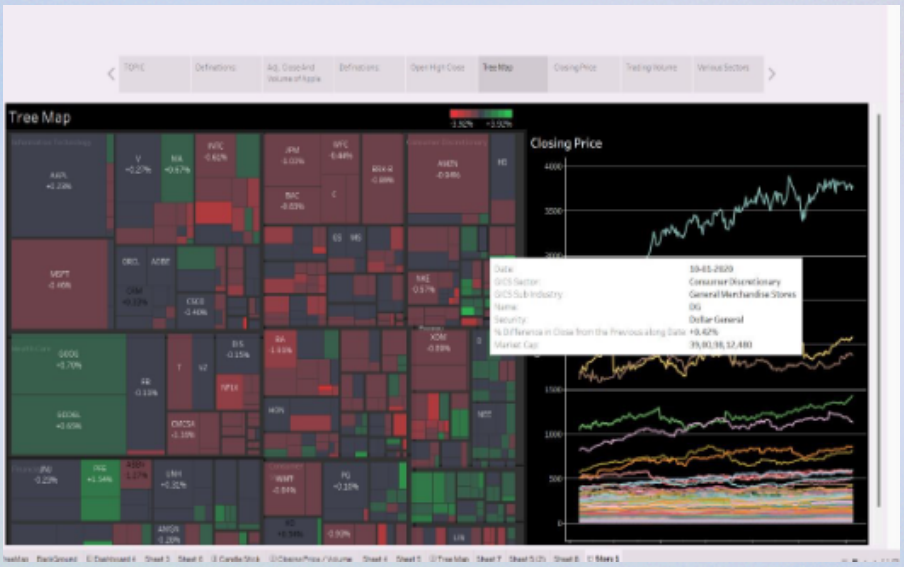
For the Tableau mini project the topic was to visualise a e-commerce supplier.We took a very informative dataset based on e-commerce suppliers in India.Various e-commerce from Amazon Flipkart koovs snapdeal myntra were considered. Numerous dashboards were created like Platform Insights, sales data, category distribution, Regional coverage etc



AMOGH PATIL JAINAM NISAR AAKRITI SHARMA SHIVAM GUPTA

STOCK PRICE PREDICTION

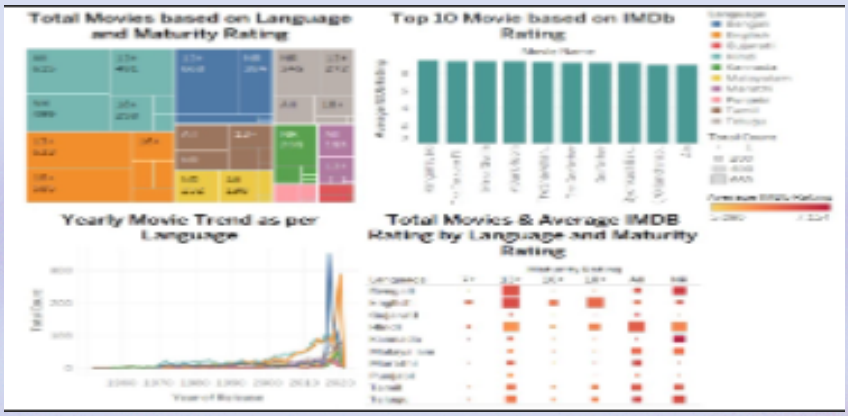
Making a data vizualization dashboard for stock price prediction using TABLEAU .



VRAJ DERIYA DHRUV GOGRI UMANG DEORA DEEP SHUKLA

OTT MEDIA ANALYTICS

Movie Name: Name of the Movie
Language: The audio language of the Movie (some movies are dubbed in multiple languages)
IMDb Rating: The rating a movie received on the IMDb Platform
Running Time: Total running time of the movie in hours and minutes
Year of Release: The year in which a movie was released in the theatres or on Amazon Prime for Amazon Prime Originals Movies
Maturity Rating: Specifies the target audience.



RUCHIT BHANDARI SATYAM PAL ARYAN PATIL MANN SHAH

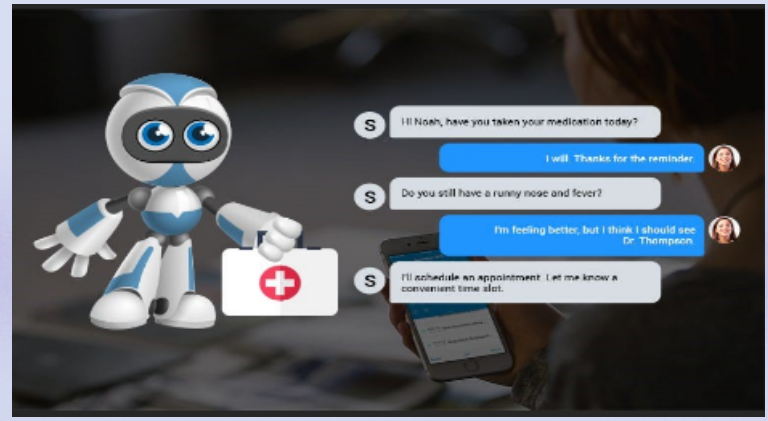
STOCK PRICE PREDICTION

In this era of complex data, it's time to easily interpret, present and uncover trends within the numbers, enter the need for visual library data in enhancing library analytics. Data visualization can bring a great deal of value to libraries' work. Data often has compiling Practical uses, and data visualization can provide librarians with important insights. Visualization can increase the power of data, by showing the "patterns,

AAYUSHI CHAUHAN AZEEM GHAZI VANITA GOGGE DHRUVI RATHOD

OTT MEDIA ANALYTICS

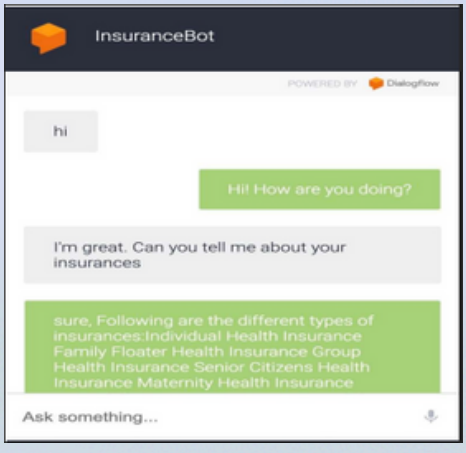
Our project aims to develop a chatbot that can assist patients in managing their health and wellness. The chatbot is designed to provide personalized guidance on a range of medical topics, including symptoms, medications, and treatment options.
Our team used natural language processing (NLP) and machine learning techniques to create a chatbot that can understand and respond to patient's inquiries.
Overall, this project demonstrates the potential of chatbots to improve patient care and enhance the efficiency of healthcare delivery.

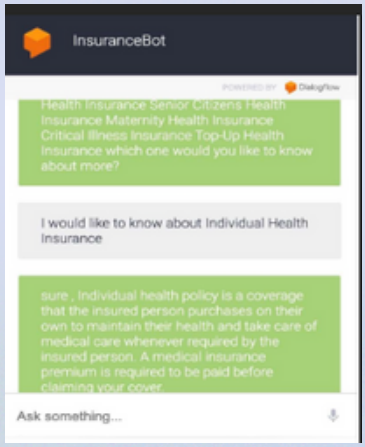


RUCHIT BHANDARI SATYAM PAL ARYAN PATIL MANN SHAH

STOCK PRICE PREDICTION

Nowadays, people insure everything, from their business to health, amenities, and even the future of their families after them. Therefore selling insurance policies is a game of providing the best options for customers in the most comprehensive manner, without wasting any time. This is why insurers worldwide, are investing in AI-powered insurance chatbots for perfect customer experience. These insurance chatbots will try to solve FAQs of customers and engage them in real-time conversations, help customers to make well-informed decisions regarding insurance policies, and simplify queries regarding routine tasks like payments, updates,etc.

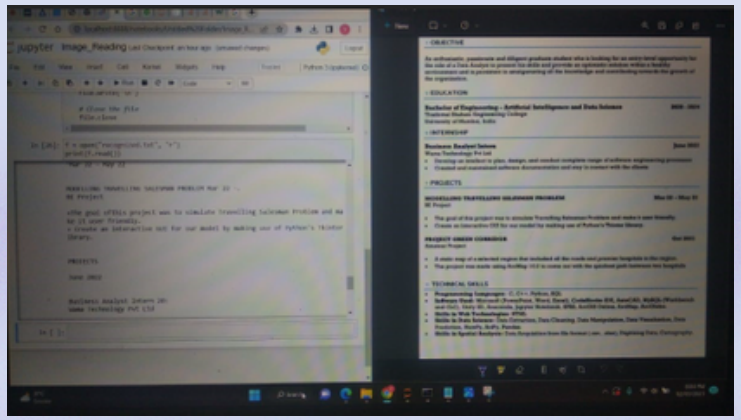




AAYUSHI CHAUHAN AZEEM GHAZI VANITA GOGGE DHRUVI RATHOD

OTT MEDIA ANALYTICS

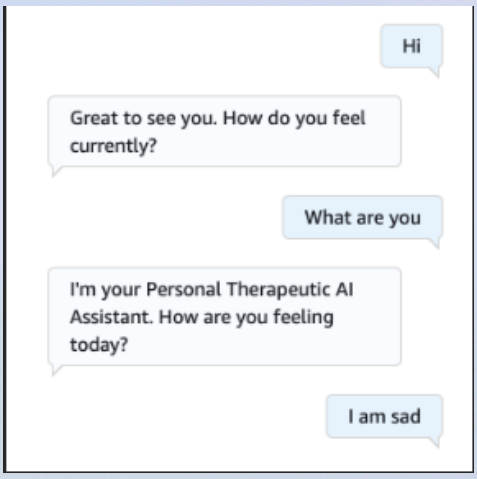
Our team has developed a novel Question Generating Conversational AI that leverages Natural Language Processing and Question Generating APIs to extract relevant skills from a scanned resume and generate questions pertaining to those skills. To achieve this, we utilized Image Processing techniques to extract text from scanned resume images. Our system allows for seamless communication between the user and the AI, making the resume screening process more efficient and effective. The AI's ability to generate questions that probe the candidate's skills and experience can aid in identifying the best-suited candidates for a particular job, thereby streamlining the recruitment process.



TUSHAR MALANKAR YASH SHAH VASHESH JOGANI HRITHIK JAIN

STOCK PRICE PREDICTION

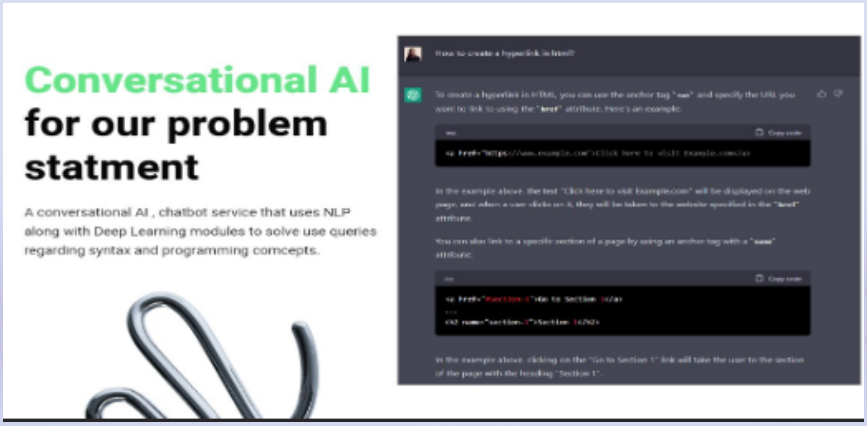
Mental health is a growing concern today, with many people struggling to access the necessary services they need. Our conversational chatbot will provide users with a virtual therapist, allowing them to access mental health services from the comfort of their own homes. The chatbot will use natural language processing and machine learning algorithms to understand user input and provide personalized responses tailored to each user's individual needs and will provide a safe and secure environment for users to discuss their mental health concerns.



AARYAMONVIKRAM SINGH RIZ LALA AAKRITI SHARMA GAURAVI PATANKAR

OTT MEDIA ANALYTICS

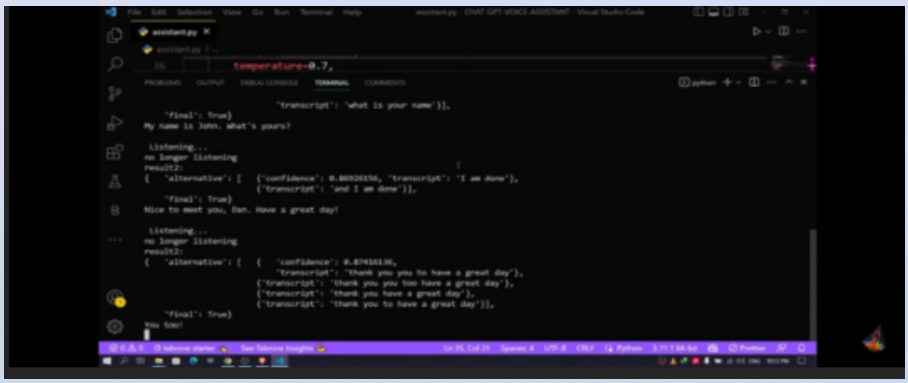
The objective is to create a chatbot that uses NLP and deep learning to help users with syntax and programming concepts. The chatbot will be trained on a dataset of programming languages and their associated syntax rules, and will be able to answer users' queries in a conversational manner. This will provide users with instant help and make it easier for them to learn programming.



GIRISH RAJANI KHUSHI RUPAREL SOURAV MACWAN FAHAD CHAROLIA

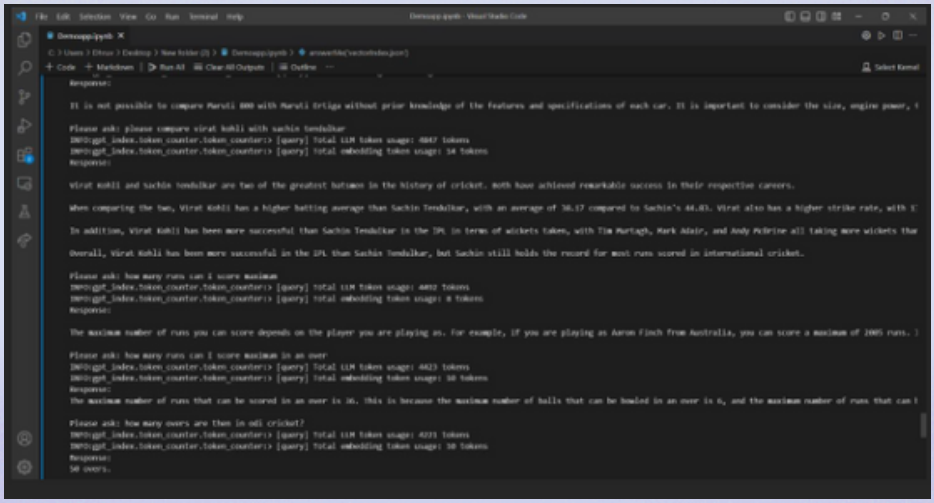
STOCK PRICE PREDICTION

This project aims to develop a conversational AI system that can function as a personal assistant. The system will be designed to interact with users in a natural and intuitive way, using advanced natural language processing techniques to understand and respond to user queries and commands. The chatbot functionality will allow users to engage with the system through text-based chat interfaces, while the voice assistant functionality will enable users to interact with the system using spoken commands. The system will be trained on large datasets of natural language data, enabling it to recognize patterns and understand context in user input. It will also incorporate machine learning algorithms to improve its performance over time, allowing it to adapt to user behavior and preferences. The ultimate goal of this project is to create a conversational AI system that can provide users with a seamless and personalized experience, making it easier and more efficient to interact with technology.



DEEPTI GURNANI VANSHIKA CHAURASIA PARTH DHARMALE AYUSHI PRAJAPATI

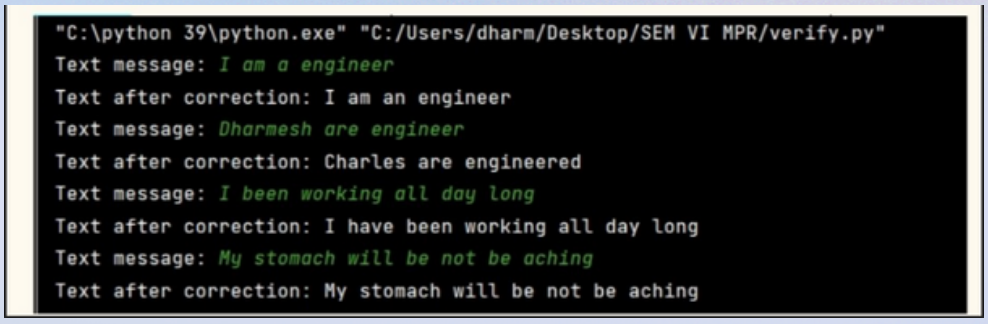
SPORTS CHATBOT



VRAJ DERIYA DHRUV GOGRI UMANG DEOYRA DEEP SHUKLA

STOCK PRICE PREDICTION

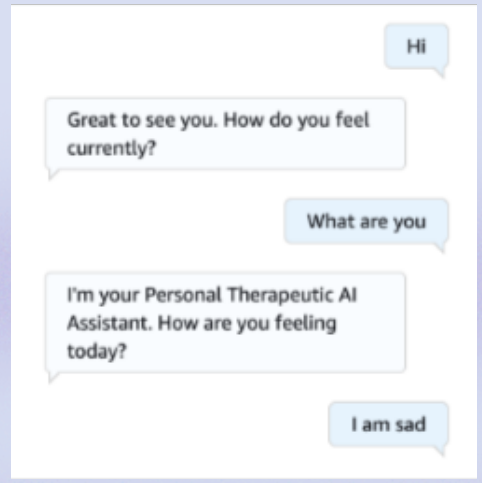
We are aming to create a tool which will be correcting the sentences into standard English sentences. Number of grammar and spelling mistake will be shown initially and the corrected sentence will be shown as an output.



OMKAR PATHARE DHARMESH MISHRA HARSH SHUKLA KISHIN NENWANI

CONVERSATIONAL CHATBOT

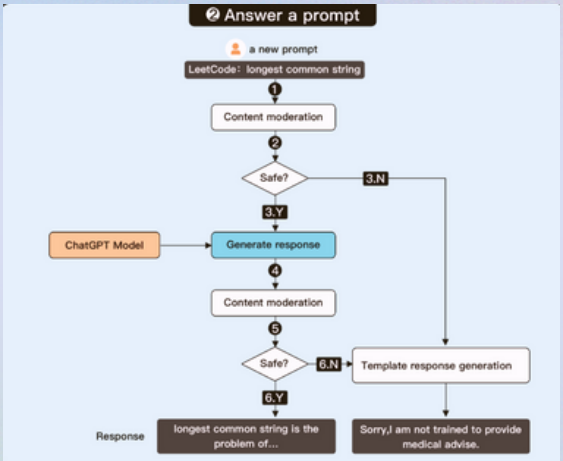
Mental health is a growing concern today, with many people struggling to access the necessary services they need. Our conversational chatbot will provide users with a virtual therapist, allowing them to access mental health services from the comfort of their own home. The chatbot will use natural language processing and machine learning algorithms to understand user input and provide personalized responses tailored to each user's individual needs and will provide a safe and secure environment for users to discuss their mental health concerns.



Aaryamonvikram Singh Riz Lala Aakriti Sharma Gauravi Patankar

SIMULATING CHATGPT

For the conversational Ai mini project the topic selected by us was Simulating chatgpt for extracting political discourses on specific topics. Through this Chatbot we are going to integrate different APIs related to Indian politics and create a niche specific ChatGPT interface.

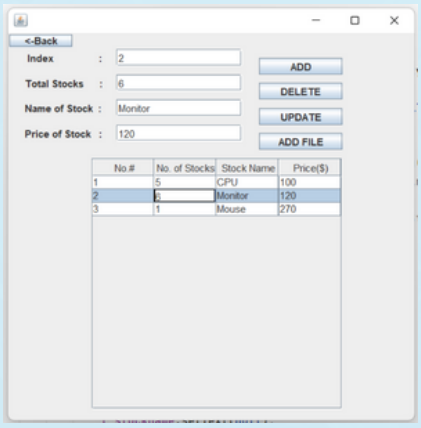


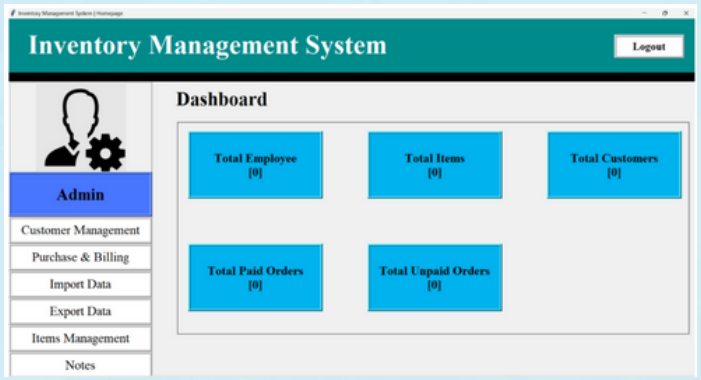
Jainam Nisar Aditya Patil Amogh Patil

SE PROJECT ABSTRACT

INVENTORY MANAGEMENT

The system aims to provide real-time inventory management and reduce costs associated with overstocking or stockouts. The inventory management system allows users to monitor and control inventory levels, track product movement, and generate bills for customers. The system is designed to enable users to manage their inventory accurately and effectively, ensuring that they have the right products in stock at the right time. The system is built using modern technologies such as Java, Python and MySQL database, which provide a robust and scalable platform for managing large amounts of inventory data.

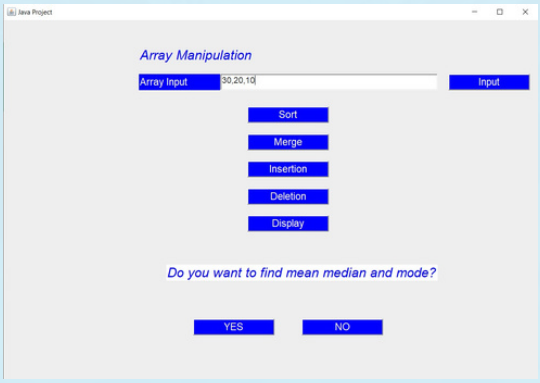


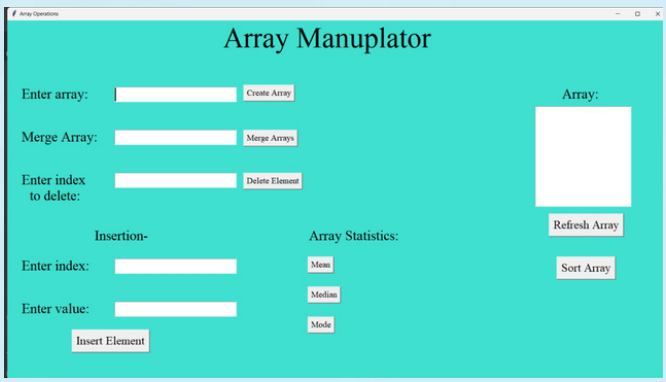


Harsh Chaudhari Umangi Gore Aayush Mandik Jatin Gupta

ARRAY MANIPULATION

This project involves writing a program for array manipulation operations, creating a class and a subclass that inherits the first class, and finding the mean, median, and mode of the array. The program will allow for various array manipulation functions such as adding or removing elements, sorting, and searching. The main class will define the basic array operations, and the subclass will inherit those methods while also implementing its own methods to calculate the mean, median, and mode of the array.

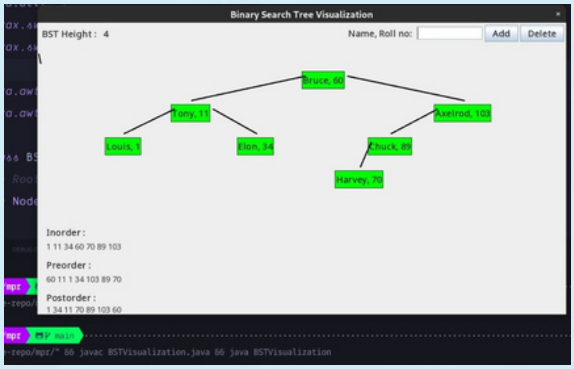




Kunal Chhablani Sagar Bora Varad Shinde Dev Ahuja

BINARY SEARCH TREE VISUALIZER

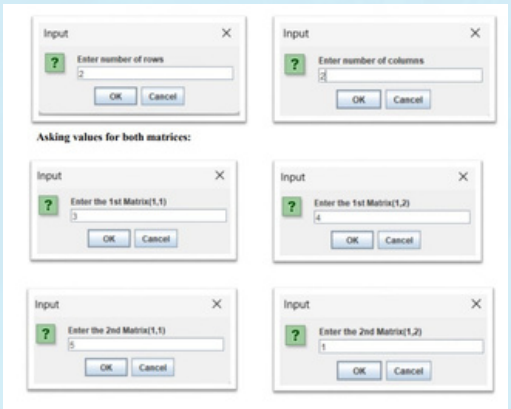
BST visualiser implemented using Java in Swing and Python in Tkinter, presenting inorder, pre-order and post-order traversals, along with basic operations, namely insertion and deletion of a node.

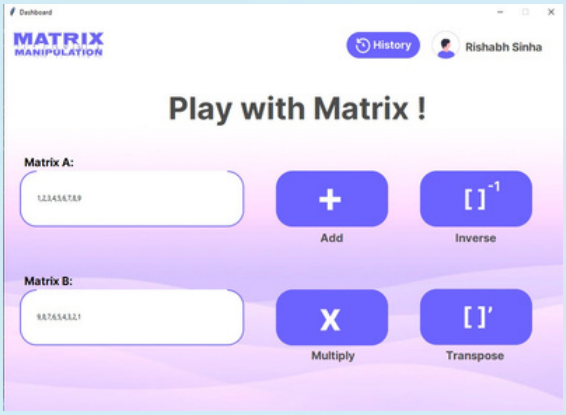


Siddharth Kaduskar Farhan Khan Pranil Chitre Kalpesh Jangir

MATRIX MANIPULATION

The project involves matrix manipulation incorporating methods for Reading Displaying ,Adding, Multiplying ,Transpose ,develop another subclass to find inverse of a matrix using gauss elimination.

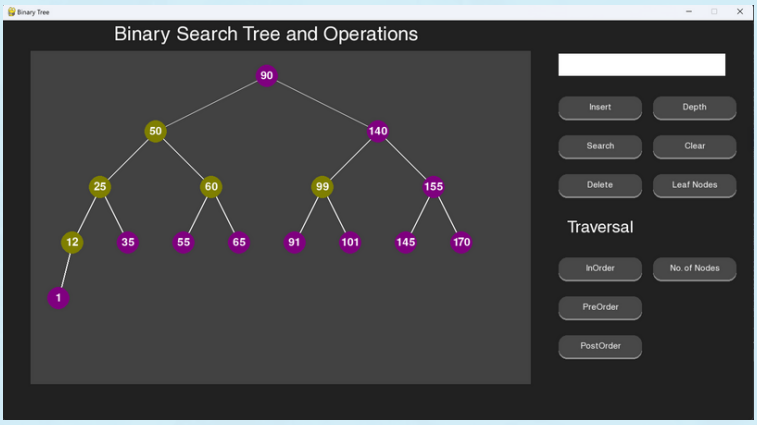




Pankaj Jaiswal Rishabh Sinha Ashutosh Shrivastava Shruti Singh

OPERATIONS ON BINARY TREE

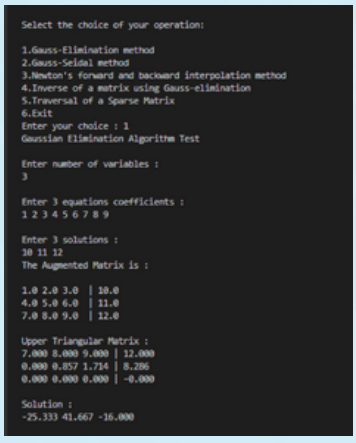
The project aims to implement various operations on a binary tree using Java in semester 3 and Python in semester 4. The operations include insertion, deletion, traversal, searching of nodes, number of nodes and leaf nodes in the tree. The project also includes the visualization of the binary tree using graphical user interface (GUI) components.

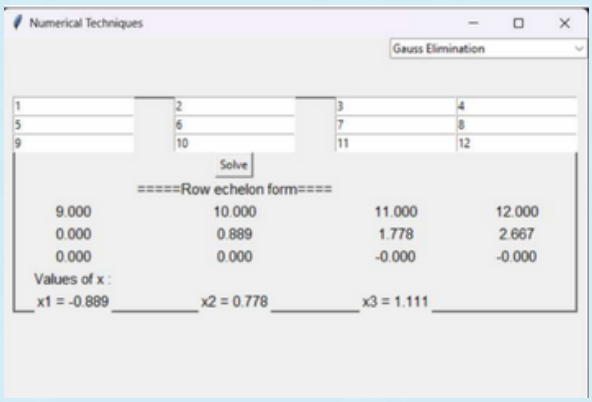


Harshvardhan Rijhwani Rohit Sharma Vikas Talreja Divyansh Sancheti

NUMERICAL TECHNIQUES

Program for numerical techniques such as Gauss elimination , Gauss-Seidel, Newton's forward and backward interpolation , Inverse of a matrix using Gauss elimination, Solution of 1st order differential equation by Euler method and Runge Kutta 4th order method

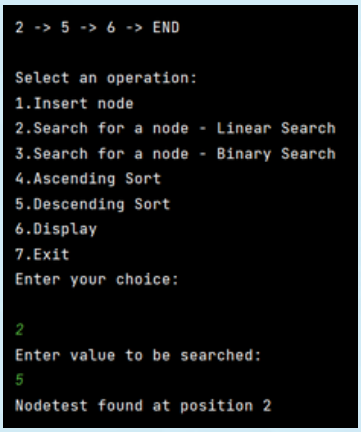


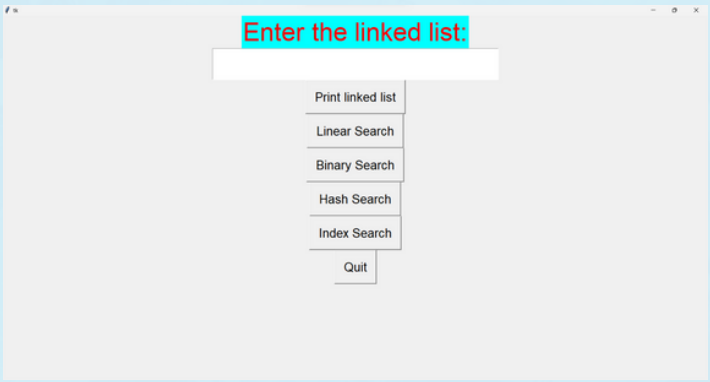


Mohammed Maviya Qureshi Sagar Naidu Moksh Punamiya Ashley Pereira

SEARCH OPERATIONS USING LINKED LIST

The mini-project implemented in Java and Tkinter is a program that demonstrates the functionality of a doubly linked list data structure and the singly linked list data structure. The program also includes a GUI that allows the user to enter the elements of the linked list and visualize the results of the search operations. The GUI is created using the tkinter library and includes several buttons to initiate the different search operations.

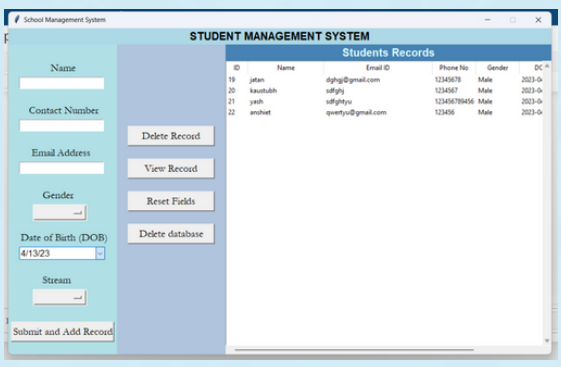


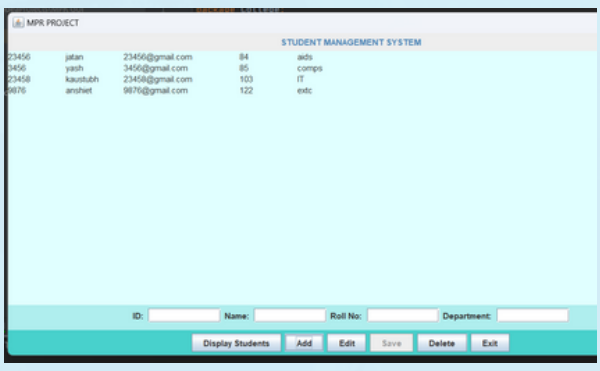


Baldeo Verma Harsh Sharma Harshit Mestry Tanya Mansukhani

STUDENT MANAGEMENT SYSTEM

Student Management System is software which is helpful for students as well as the school authorities. In the current system all the activities are done manually. Its time saving and scalable. Our Student Management System deals with the various activities related to the students.In the software we can add new student record and can edit the students details entered. Also we can retrieve the student's record from the database .

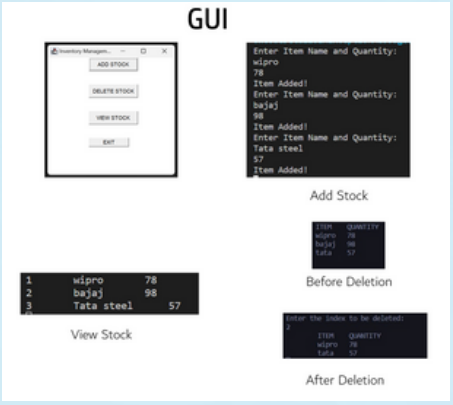


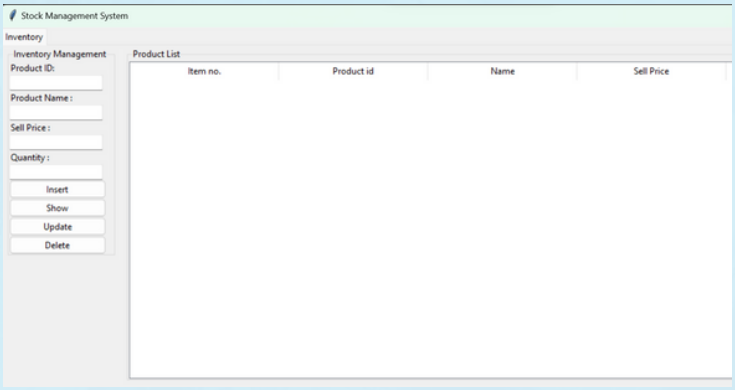


Jatan Patel Yash Patel Kaustubh Shinde Anshiet Upadhyay

INVENTORY MANAGEMENT

The Inventory management project system allows users to create new products, read or view existing products, update product information such as prices or descriptions, and delete products that are no longer in stock. This project typically involves the implementation of a database system that stores information about the products, including their names, descriptions, prices, and stock levels. It is implemented using GUI AWT and Files in Java and Tkinter in Python.

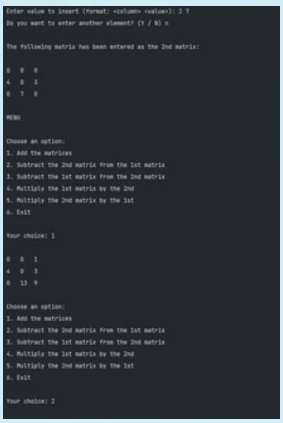


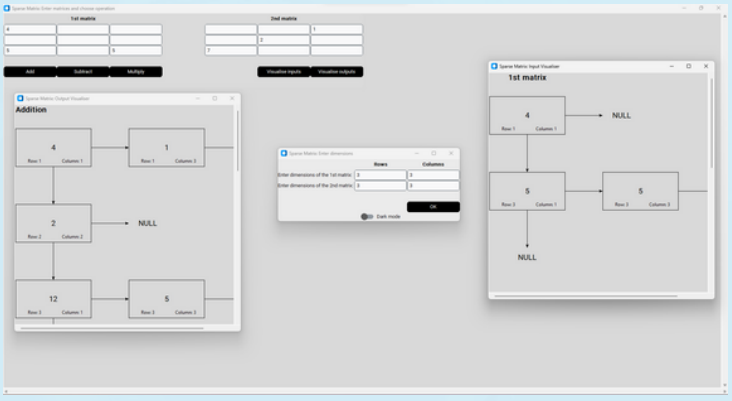


Gaurang Patyane Muskan Tolani Shristi Shetty Bhavesh Garud

IMPLEMENTATION OF SPARSE MATRICES

Implementation of Sparse Matrices using Orthogonal List Representation
In Java: We implemented a command line based tool for the same (refer screenshot). It is capable of Adding, Subtracting and Multiplying 2 Sparse Matrices stored as Orthogonal Lists.
In Python: We implemented a GUI based tool using Tkinter. It can perform all operations as the Java application and has an interactive UI to complement it. It also uses parts of Custom Tkinter for a modern look and feel.

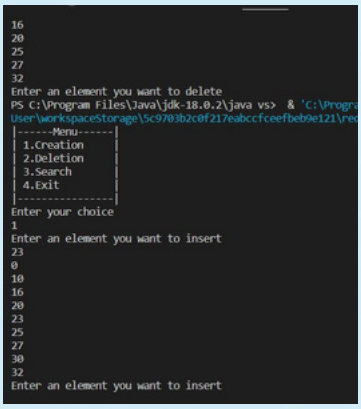


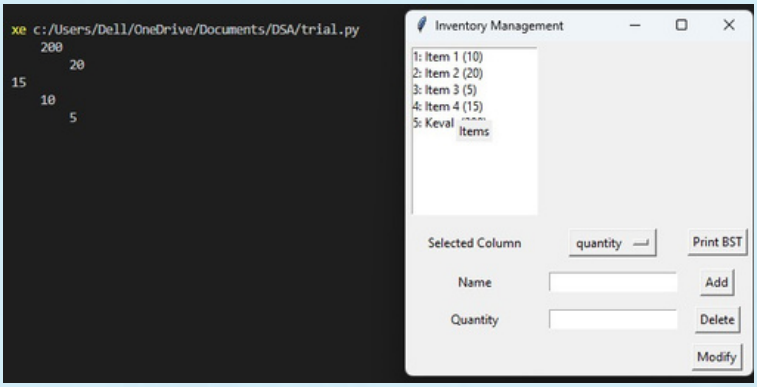


Aryan Aji Rishabh Chaurasia Siddhant Chetlur Ahmed Kadiwala

OPERATIONS ON BST

The project is an implementation of a Binary Search Tree data structure in Java and Python with a Graphical user Interface.The project likely involves creating a Gui that allows the user to insert,search,delete, and traverse nodes in a BST. In java we made a class for performing various operations of BST. In java we took help of the TXT file for our project. In python we used GUI toolkit such as Tkinter.

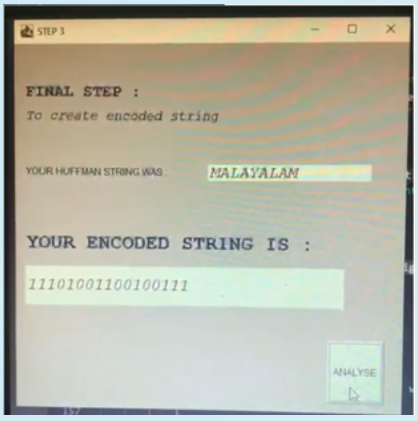




Varun Chavan Niyati Doaj Aryan Gupta Keval Majithia

HUFFMAN ENCODING IMPLEMENTATION

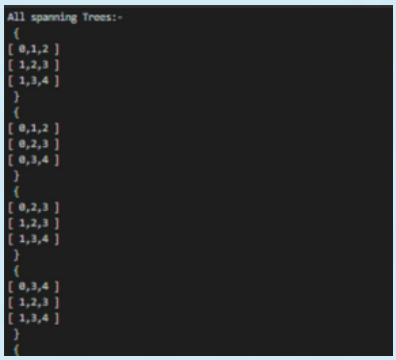
The mini project involved building a GUI using Java and Python programming languages. The project utilized Huffman Encoding technique to decode a string of characters. Initially, the project focused on decoding a string of characters using Huffman Encoding. Later, the project was upgraded to include text file compression functionality. This allowed users to compress large files and reduce their size while maintaining the original data.

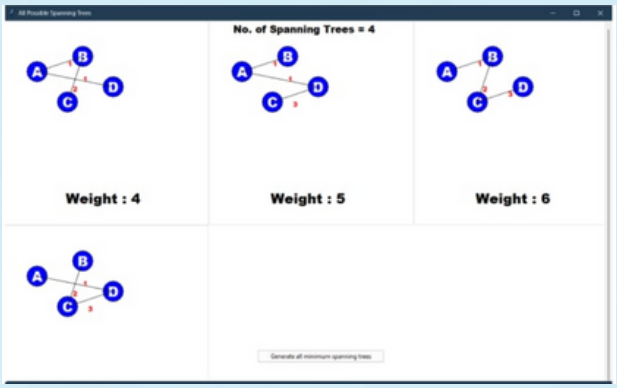


Manjiri Khodke Vishesh Gatha Pratham Mane Meet Laheri

MINIMUM SPANNING TREE

The project is used to generate all possible spanning trees and all possible minimum spanning trees from a given graph. Python program involves the use of tkinter, networkx built-in libraries as well as concept of inheritance as well as object oriented programming.We will implement this algorithm in Python, and test it on a variety of input graphs to assess its efficiency and accuracy.

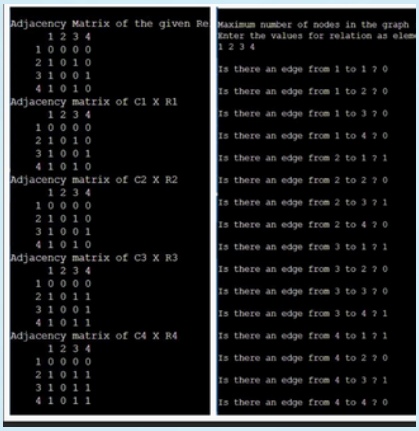


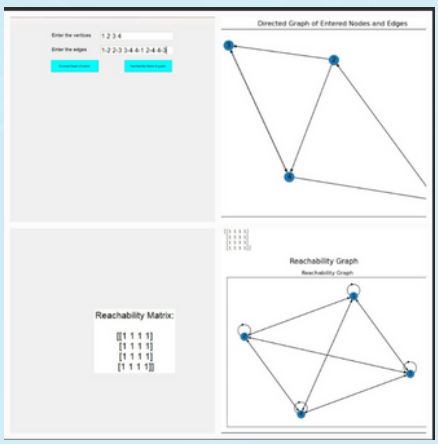


Krishnakant Kandoi Meet Khatri Vishal Chelwani Vidhee Artani

REACHABILITY MATRIX OF DIAGRAPH

The project topic to write a program to find the reachability matrix of a digraph using Java and python tkinter. We solve this using dynamic programming approach. The user interface will be designed using Tkinter And Awt to provide an interactive platform for users to input the directed graph. The graph will be displayed on the interface and the user will be able to interact with it by adding or removing vertices and edges.

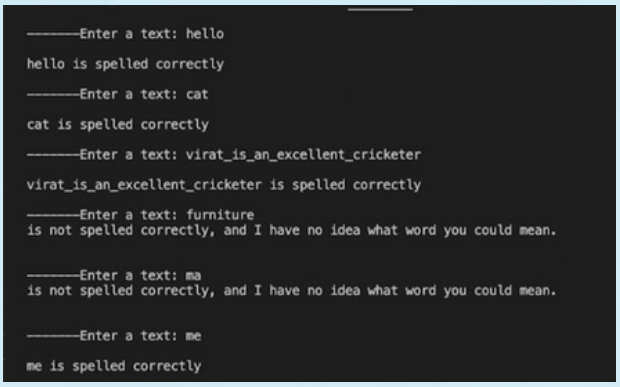


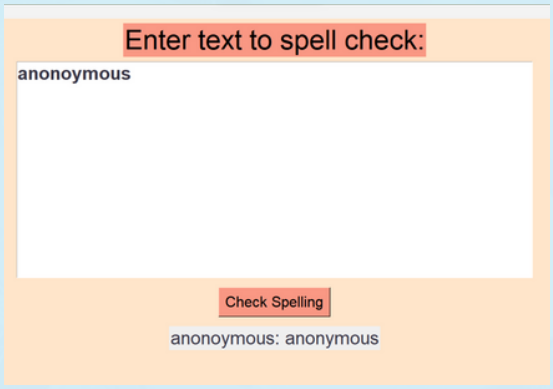


Vinayak Shukla Ankush Yamkar Abhijit yadav Arsalan Siddiqui

SPELL CHECKER

A spell checker that reads a word in a piece of text and looks each of them in a dictionary check its spelling using python with tkinter

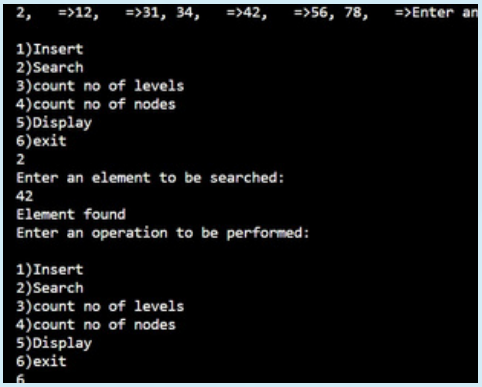


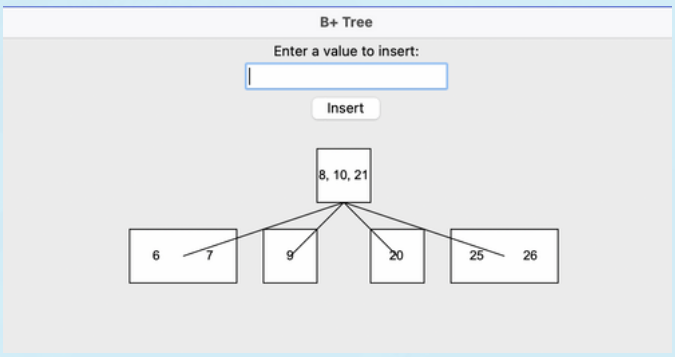


Yathharth Karanjikar Soham Kore Rahul Kumhar

OPERATIONS ON B+ TREES

Developed a B+ tree and its performed operations on it. Operations we performed where insertion, counting the level of nodes, counting the total number of nodes, counting the number of leaf nodes, and searching or traversing the tree. We also performed sorting on an array and linked list. We created GUI in Java and Python using AWT and Tkinter respectively.

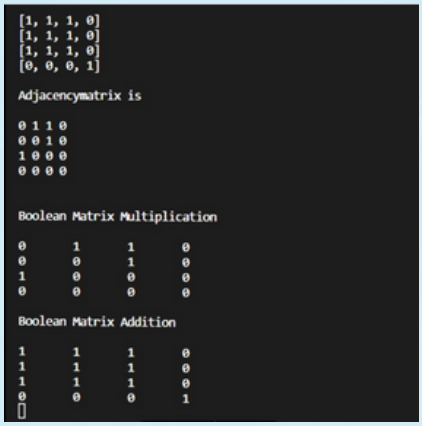


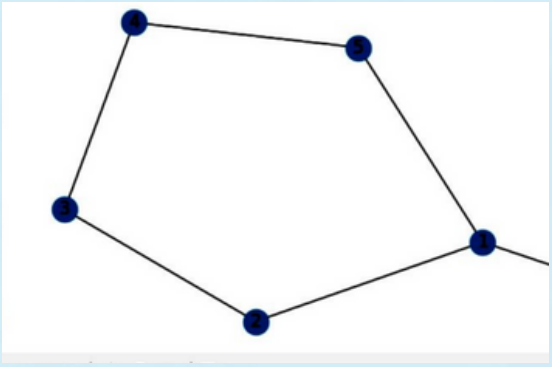


Radha Tumbre Priya Waghela Kunal Waingankar Vivek Nair

GRAPH BASED DATA PROCESSING

Graph-based data processing uses Floyd,Breadth First Search,Depth First Search algorithms, and we use Java and Python as languages and programs to execute and implement the GUI. The concepts of graph data structures like Adjacency matrix,Transitive Closure,etc as well as the logical constructs were used. We use Floyd Warshall's algorithm to help us solve the problem.

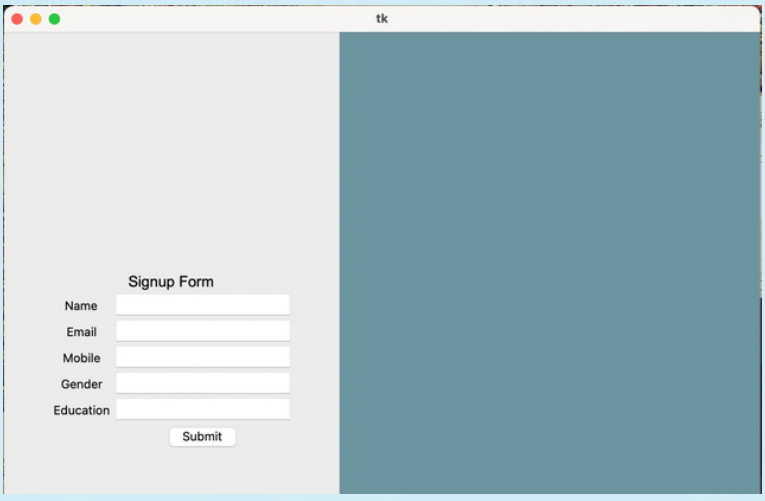




Pankti Muni Kresha Mehta Khyati Vora Kartike Pradeep Singh

JOB PORTAL

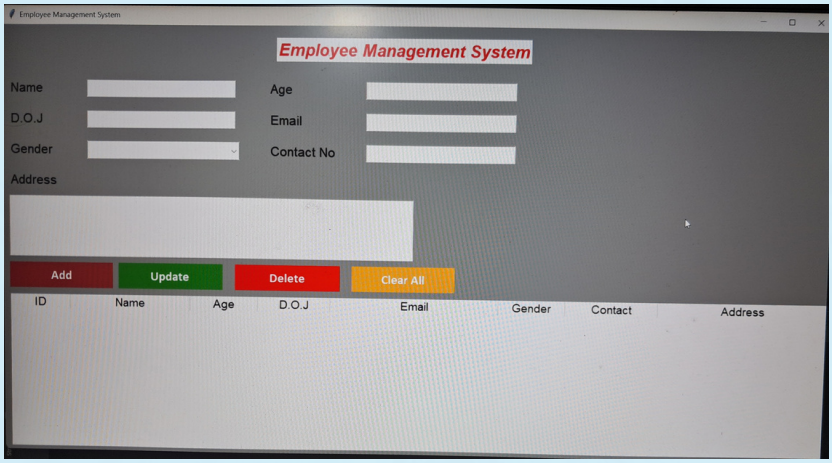
Creating a Job Portal which offers an all in one solution and a job recommendation system using ML in Tkinter in Python.



Dhawal Chaudhari Pragati Jakhotia Riddhi Chawla Aryan Maharshi

EMPLOYEE RECORD MANAGEMENT

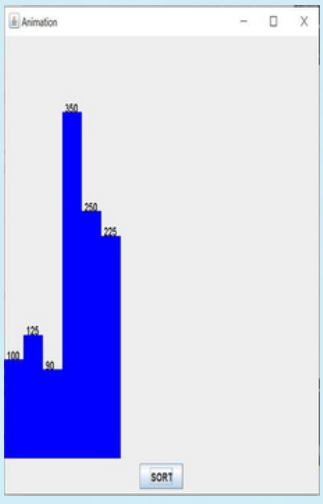
Our project was to create a program that would enable users to to maintain a file of employee records and a menu driven program that would help the user to insert, sort, delete, index a record whilst also enabling them to convert the data files to byte files and merge them.

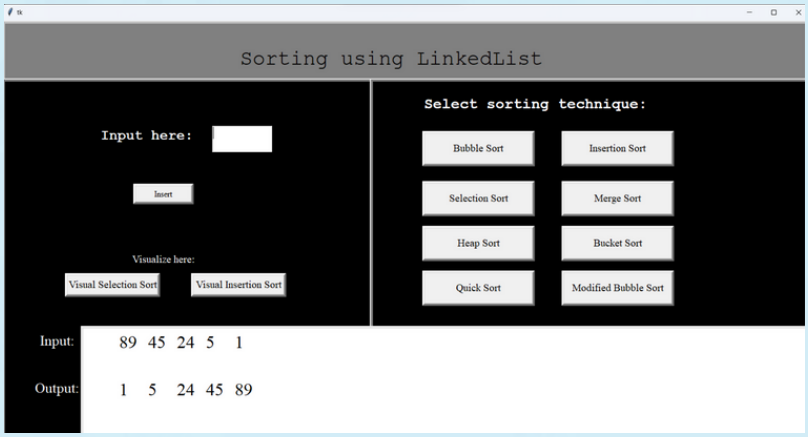


Saaim Ansari Dhruv Bajoria Keval Gosrani Manish Dusa

SORTING TECHNIQUES USING ARRAYS

Developed a class for each sorting technique i.e. bubble sort , quick sort , bucket sort, merge sort, heap sort and animate any one of them.





Kaustubh Mhatre Naman Vashistha Vidhi Vaishnav Dipshree Parmar

INTERNSHIPS

DEUTSCHE BANK

TE	Vashesh Jogani	75k	*2 month*
	Fahad Charolia	75k	2 month

JP MORGAN & CHASE

TE			
	Deepti Gurnani	70K	*2 months*
	Khushi Ruparel	70K	*2 months*
	Azeem Ghazi	75K	*2 months*

ORACLE

TE			
	Riz Lala	50k	*2 month*
	Ruchit Bhandari	50k	*2 month*

TIAA

TE	Sourav Macwan	30K	*2 months*
	Dharmesh Mishra	30K	*2 months*
	Goyam Jain	30K	*2 months*

TURNIP

TE	Aaryamonvikram Singh	15K	*2 months*

KAATRU- IIT MADRAS

TE	Girish Rajani	15K	*3 months*

EKTASI TECHNOLOGY

TE	Vedant Kadam	10K	*2 months*

BYJUS

TE	Devesh Gandhi	20k	*2.5 months*

GALAXY AUTOMATION

TE	Riz Lala	5K	*1 month*

ANGRYBAAZ SERVICE PRIVATE LIMITED

TE	Harsh Shukla	10K	*3 months*

INTELLIBLOCK TECHNOLOGY

TE	Vrinda Bundelkhandi	5K	*1 month*

NTT

TE	Aaryamonvikram Singh		*2 months*

MAQ SOFTWARE

SE	Ayushi Prajapati	25K	*1 month*

SOLAR INDUSTRIES INDIA LIMITED

SE	Pankaj Jaiswal	7K	*6 months*

MINDVIEW PLATFORM LIMITED

SE	Pankaj Jaiswal	150$	*9 months*

MAYANK TUTORIALS

SE	Parthvi Makwana	15K	*3 months*

DVNJ PVT LTD

SE	Ankush Yamkar	7K	*3 months*

LITTLE INVENTORS

SE	Pankhudi Jaiswal	3K	*4 months*

NBLIK

SE	Pankhudi Jaiswal	1K	*1 month*

KRITEXCO

SE	Vishesh Gatha	15K	*1 month*

SKILLZOT

SE	Vishesh Gatha	12K	*1 month*

TIPS INDUSTRIES LIMITED

15K *1 month*

SE	Ishika Manghwani		

CODE B

SE	Rishabh Sinha	15K	*5 months*

GEEKSFORGEEKS

SE	Rishabh Sinha	800	*1 year*

STATE BANK OF INDIA

SE	Dhawal Chaudhari		*11 months*

SOFTSENSE TECHNOLOGIES PVT. LTD.

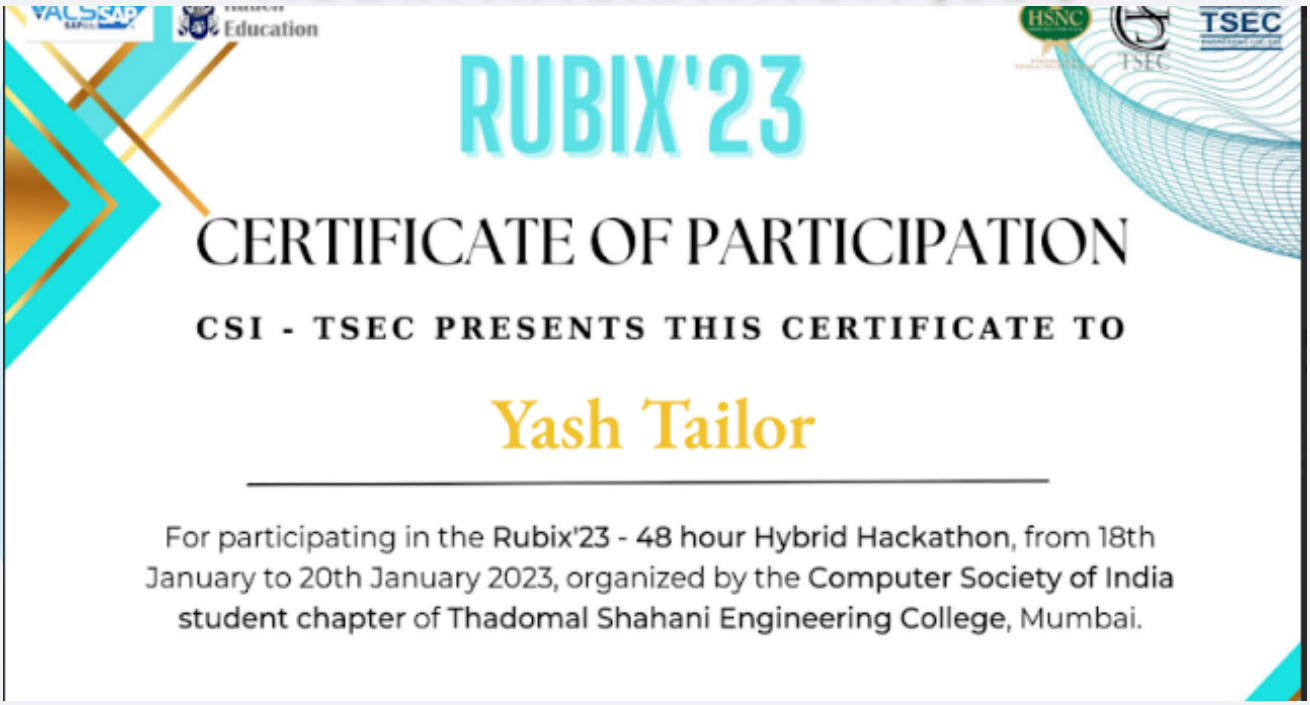
SE	Aryan Shah		*1/2 month*

HACKATHONS

RUBIX HACKATHON (CSI)

YEAR- SE Siddhant Manoj Priyanka Bajaj Maviya Qureshi Shruti Punjabi

RUBIX HACKATHON (CSI)



YEAR- SE Mitesh Singh Yash Tailor Baldeo Verma Vinayak Jaiswal

RUBIX HACKATHON (CSI)

YEAR- SE Vishesh Gatha Kresha Mehta Pankhudi Jaiswal Meet Laheri

UNSCRIPT ROOKIES (FRCRCE)

YEAR- SE Vishesh Gatha Kresha Mehta Pankhudi Jaiswal Meet Laheri

NEED FOR CODE (CODETANTRA)

YEAR- SE Vishesh Gatha Kresha Mehta Pankhudi Jaiswal Kashik Shredharan

RUBIX HACKATHON (CSI)

YEAR- SE RIshabh Sinha Om Ahvad Nidhi

GALACTIC PROBLEM SOLVER (NASA)

YEAR- TE Aaryamohan Vikram Singh Khushi Ruparel Sourav Macwan Girish Rajani

CODESSIANCE (CODESTORM)

YEAR- TE Aaryamohan Vikram Singh Khushi Ruparel Sourav Macwan Girish Rajani

RUBIX HACKATHON (CSI)

YEAR- TE Vedant Kadam Dharmik Shetty Chinmay Pednekar Ashutosh Patil

CODESSIANCE (CODESTORM)

YEAR- TE Vedant Kadam Parag Patel Manan Mehta Mahek Karia

CLASH OF CODES


CLASH OF CODES

Devfolio CELO polygon

DJSCE IETE × TRINITY

CERTIFICATE

OF PARTICIPATION

proudly presented to

PANKAJ JAISWAL

of Team BYTECODES for participating in

CLASH OF CODES a 24 hour Hackathon held on 4th & 5th March, 2023 at

Dwarkadas Jivanlal Sanghvi College of Engineering, Mumbai.

YEAR- SE Pankaj Jaiswal Rishabh Sinha Om Avhad Siddhiraj Kolwankar

ERR_404 5.0 HACKATHON


Anjuman-I-Islam's

M. H. Saboo Siddik College of Engineering

Department of Computer Engineering

Presents 36 Hours National Level Hackathon

CERTIFICATE

OF PARTICIPATION

THIS CERTIFICATE IS PROUDLY PRESENTED TO

Pankaj Jaiswal

for their participation in **ERR_404 5.0 Hackathon** organized by the Programmers' Club, Department of Computer Engineering, Anjuman-I-Islam's M. H. Saboo Siddik College of Engineering on 18th & 19th March, 2023

ERR_404 5.0

Dr. Mohammed Ahmed Shaikh
Convenor

Asst. Prof. Ahlam Ansari
Co-Convenor

YEAR- TE Pankaj Jaiswal Rishabh Sinha Om Avhad Shubham Tainwala

INNERVE HACKATHON


INNERVE

CERTIFICATE
OF PARTICIPATION

This is certified to

Pankaj Jaiswal

for successful participation in Innerve 7,
which was a 24 hour hackathon held on
10th - 11th March, 2023.

Brig Abhay A Bhat
Director

Vaishali Ingale
Faculty Incharge

YEAR- SE Pankaj Jaiswal Siddhiraj Kolwankar Nilesh Gawli Dhanshree Patangrao

ERR_404 5.0 HACKATHON


Anjuman-I-Islam's
M. H. Saboo Siddik College of Engineering
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Presents 36 Hours National Level Hackathon

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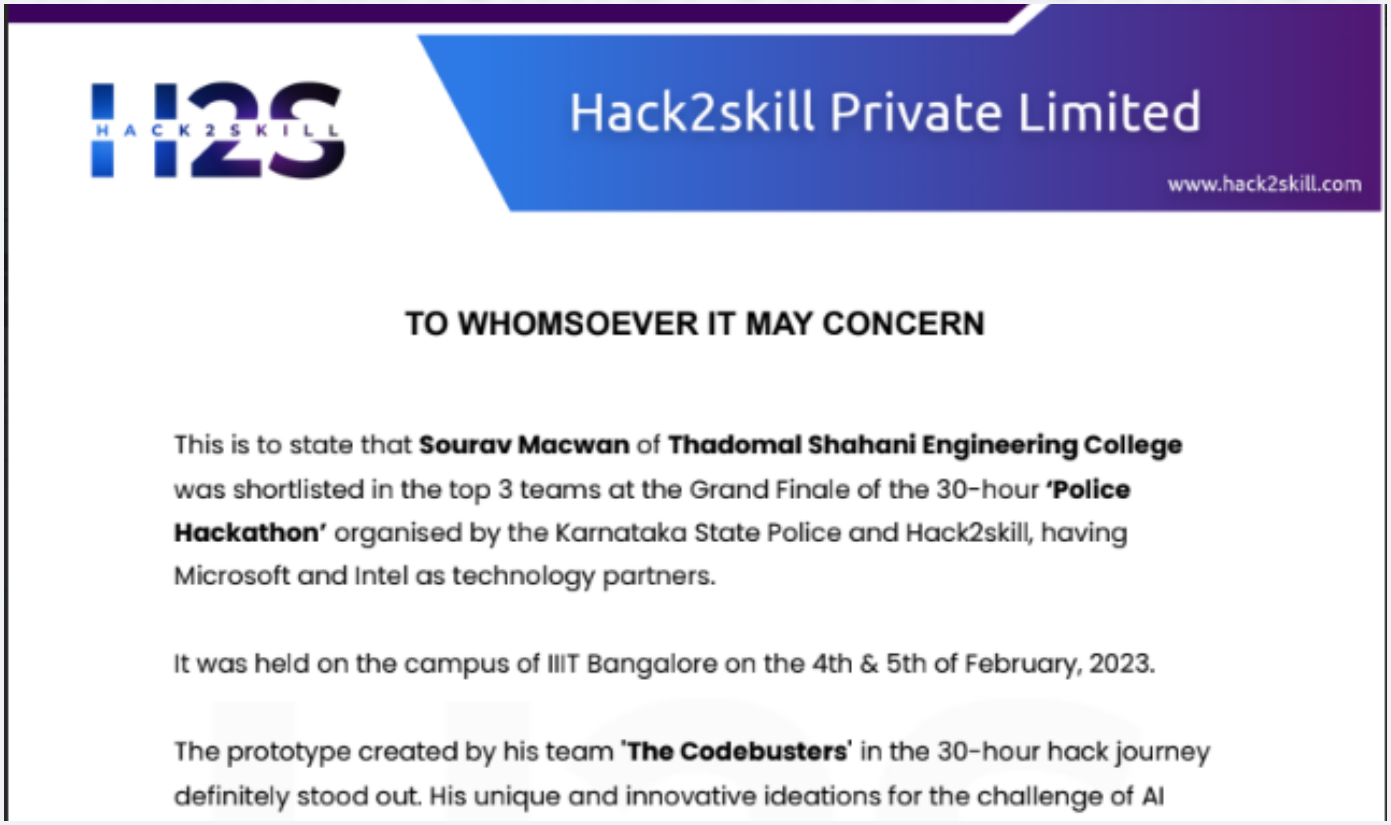
ERR_404 5.0

Dr. Mohammed Ahmed Shaikh
Convenor

Asst. Prof. Ahlam Ansari
Co-Convenor

YEAR- TE Pankaj Jaiswal Rishabh Sinha Om Avhad Shubham Tainwala

KARNATAKA STATE POLICE HACKATHON



Hack2skill Private Limited

www.hack2skill.com

TO WHOMSOEVER IT MAY CONCERN

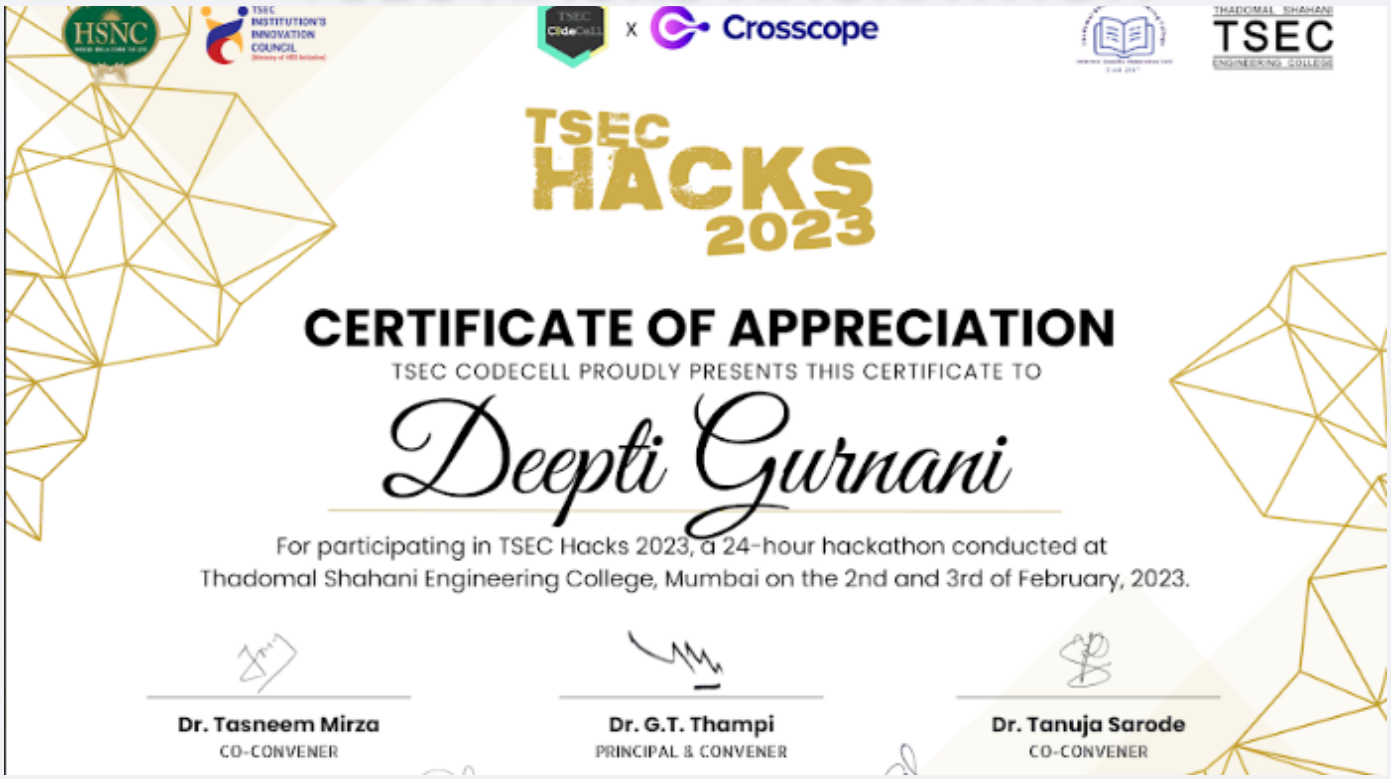
This is to state that **Sourav Macwan** of **Thadomal Shahani Engineering College** was shortlisted in the top 3 teams at the Grand Finale of the 30-hour **'Police Hackathon'** organised by the Karnataka State Police and Hack2skill, having Microsoft and Intel as technology partners.

It was held on the campus of IIIT Bangalore on the 4th & 5th of February, 2023.

The prototype created by his team '**The Codebusters**' in the 30-hour hack journey definitely stood out. His unique and innovative ideations for the challenge of AI

YEAR- TE Khushi Ruparel Sourav Macwan Girish Rajani

TSEC HACKS HACKATHON



TSEC HACKS 2023

CERTIFICATE OF APPRECIATION

TSEC CODECELL PROUDLY PRESENTS THIS CERTIFICATE TO

Deepti Gurnani

For participating in TSEC Hacks 2023, a 24-hour hackathon conducted at Thadomal Shahani Engineering College, Mumbai on the 2nd and 3rd of February, 2023.

Dr. Tasneem Mirza CO-CONVENER

Dr. G.T. Thampi PRINCIPAL & CONVENER

Dr. Tanuja Sarode CO-CONVENER

YEAR- TE Deepti Gurnani Sourav Macwan Vanshika Khyati Vora (SE)

CRESCENDO KALEIDOSCOPE

YEAR- SE Vinayak Jaiswal Dipesh Todi Mitesh Singh Yash Tailor

TECH NIGHT

YEAR- SE Vinayak Jaiswal Dipesh Todi Mitesh Singh Yash Tailor

NEED FOR CODE (CODETANTRA)

YEAR- TE Sachi Shah Riz Lala Ayushi Prajapati Parth Dharmale

HACK OVER 3.0

YEAR- SE Zaid Sunasra Dipesh Todi Mitesh Singh Yash Tailor

RUBIX HACKATHON (CSI)

YEAR- TE Vrinda Bundelkhandi Kishin Nenwani Dharmesh Mishra Harsh Shukla

NEED FOR CODE (CODETANTRA)

YEAR- SE Harsh Shukla Dharmesh Mishra Vashesh Jogani Aayan Gani

CODEISSANCE (CODESTORM)

YEAR- TE Vrinda Bundelkhandi Vansh Solanki Dharmesh Mishra Harsh Shukla

RUBIX HACKATHON (CSI)

YEAR- TE Umang Diyora Dhruv Gogri Jainam Nisar Durgesh Nerkar

COMPETITIONS

Extra Curricular

RED 2021

District 3141 Rotaract

MAKE YOUR MARK

CERTIFICATE

OF EXCELLENCE

Presented to

AARYAMONVIKRAM SINGH

from Zone IA for being adjudged as 1st Position

for Debate Competition at

Rotaract Entertainment Destination (RED) 2021.

Presented on
4th & 5th December, 2021 at SNDT Women's University, Juhu, Mumbai.

PHF Rtn. Rtr. Bharat Patel,
District Rotaract Representative 2021-22,
Rotaract District Organisation, R.I.D. 3141

THADOMAL SHAHANI TSEC ENGINEERING COLLEGE

THADOMAL SHAHANI ENGINEERING COLLEGE
STUDENTS' COUNCIL

HSNC

CERTIFICATE OF ACHIEVEMENT

TALENT SHOW

THIS CERTIFICATE IS PROUDLY PRESENTED TO

Sneh Minani

to certify their earning of the entitlement ~~Group~~/Solo in Talent Hunt
who stood Second in Intra College Cultural Event organized during
TSEC Annual Cultural Week **FAISA'23**

DR. G.T. THAMPI
PRINCIPAL

IIMA

CHAOS

Certificate
Of Appreciation

This Award is presented to

Soch Mirani

for securing 1st Place in

Aaghaaz - The Street Play event

under Chaos'23, the cultural fest of IIM Ahmedabad, conducted from 26th January'23 - 29th January'23.

PROF. RAJAT SHARMA
FACULTY-IN-CHARGE

SHWETAL PATEL
FEST COORDINATOR

Certificate of Achievement

icpc International Collegiate Programming Contest
icpc.foundation

awarded to

Mr. Satyam Pal

Thadomal Shahani Engineering College

The 2022 ICPC Asia Amritapuri Doublesite Regional Contest
01 - 02 April 2023

William B. Poucher

William B. Poucher, Ph. D.
ICPC Executive Director

Aakaar
15th Edition

CERTIFICATE

OF ACHIEVEMENT

This Certificate is Proudly Presented to

Khushi Ruparel, Co-founder of B.A.E.

For securing **3rd PLACE** in the **Smart Pitch** competition under **AAKAAR**, the Annual Civil Engineering Technical Festival of the Department of Civil Engineering IIT Bombay held on 18th March 2023.

Chitra Yadav
Overall Coordinator

Srineash V K
Faculty Advisor

Schulich Startups OFFICE OF INNOVATION AND ENTREPRENEURSHIP

Schulich School of Business | YORK U

TO WHOMSOEVER IT MAY CONCERN

This is to state that **Ms. Khushi Ruparel, Co-founder of B.A.E-Breast Cancer Awareness and Examination**, was shortlisted in the **top 6 startups in Together 2023**: A joint Indian and Canadian student entrepreneurship Bootcamp and venture competition organized by - The Schulich School of Business and Startup India (Government of India).

Together 2023 was held from November 2022 to February 2023.

As one of the top 6 startups in the competition, B.A.E demonstrated exceptional creativity, innovation, and dedication to their business idea, with a commendable commitment to creating a positive impact in the Indian startup ecosystem through their efforts in breast cancer awareness and examination. Their passion and dedication to this cause are inspiring, and we believe their venture will greatly improve the health and well-being of women in India.

We wish them all the best in their future endeavors and hope that they continue to pursue their entrepreneurial dreams with the same passion and dedication that they have shown throughout this competition.

Sincerely,

Chris Carder
Executive Director - Office of Innovation and Entrepreneurship
Schulich School of Business, York University
Email: chris@chriscarder.com

Schulich Startups · The Office of Innovation and Entrepreneurship
111 Ian MacDonald Blvd, North York, ON M3J 1P3 · info@schulichstartups.com

SPORTS ACHEIVEMNETS

76TH RAILWAY SCOTT MEMORIAL
PRECISION
CRICKET TOURNAMENT

CERTIFICATE

OF PARTICIPATION

THIS IS TO CERTIFY THAT

VEDANT PATHAK

HAS PARTICIPATED IN A CRICKET TOURNAMENT STARTED
FROM 15TH MARCH 2023 TO 05TH APRIL 2023 AT
BABASAHEB AMBEDKAR KRIDA SANKUL,SOLAPUR

Diliprao Mane

Solapur Railway Cricket Association


THADOMAL SHAHANI
TSEC
ENGINEERING COLLEGE
WINNER

COMPETITIVE EXAM

AI 900: Microsoft Azure Fundamentals Exam

Students of our AI&DS Department passed the Microsoft Azure Fundamentals Exam with flying colors to obtain certification from Microsoft.

Details:

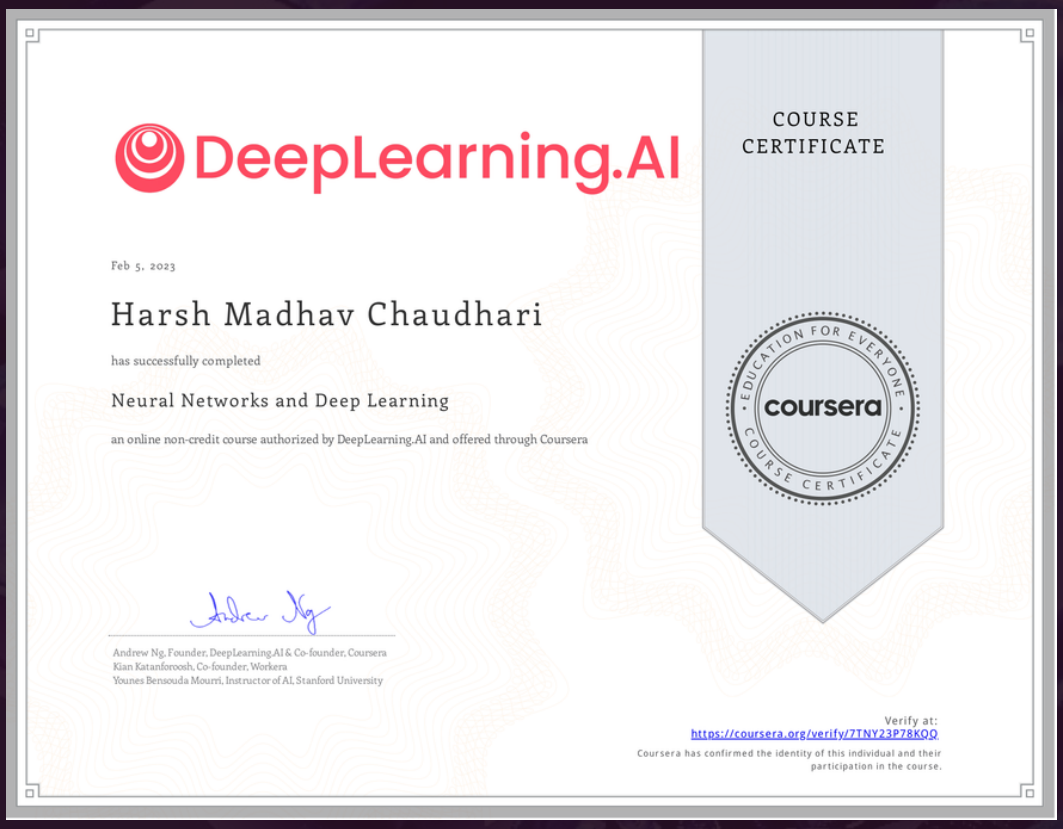
SE	Dhawal Chaudhari	921/1000
	Soham Kore	921/1000
	Anmolpreet Singh	905/1000
	VIvek Nair	885/1000
	Pragati Jakhotia	857/1000

CERTIFICATIONS

- Microsoft Certified

- Google Certified

- **Certification in Deep Learning and Neural Networks**



DeepLearning.AI

COURSE CERTIFICATE

Feb 5, 2023

Harsh Madhav Chaudhari

has successfully completed

Neural Networks and Deep Learning

an online non-credit course authorized by DeepLearning.AI and offered through Coursera

EDUCATION FOR EVERYONE · coursera · COURSE CERTIFICATE

Andrew Ng, Founder, DeepLearning.AI & Co-founder, Coursera
Kian Katanforoosh, Co-founder, Workera
Younes Bensouda Mourri, Instructor of AI, Stanford University

Verify at:
https://coursera.org/verify/7TNY23P78KQQ
Coursera has confirmed the identity of this individual and their participation in the course.

- **Certification in Python and Data Science**

Certificate of

TRAINING COMPLETION

This certifies that

DIPEN HARESH MERCHANT

has successfully completed the training in

Python with Data Structures, Data Bases and Data Science

With Kamal Sir @ Borivali from 17th July to 23rd Oct 2022

SUCCESFUL · 100% · COMPLETION

Certificate No: BRPYJUOC117

Kamal Classes: Thane | Borivali Contact: 8369084928

ARTICLES

Ethereum: The Blockchain Platform

by Vedant Kadam

Ethereum is a blockchain-based platform that allows developers to create decentralised applications (dApps) that use smart contracts. It was founded by Vitalik Buterin, a Russian-Canadian programmer, in 2015 and has since become one of the most widely used blockchain platforms. Ethereum is used for a wide range of applications, from decentralised finance (DeFi) to non-fungible tokens (NFTs).

One of the most notable features of Ethereum is its ability to create and execute smart contracts. Smart contracts are self-executing contracts that automatically execute when certain conditions are met. They are written in Solidity, a programming language specifically designed for Ethereum. Smart contracts can be used for a variety of purposes, from financial transactions to supply chain management.

Decentralised autonomous organisations (DAOs) are another key feature of Ethereum. DAOs are organisations that operate on code rather than people, making them transparent and democratic. Decisions are made by token holders rather than by a centralised authority.

Ethereum's flexibility is one of its major advantages. Unlike Bitcoin, which is primarily used as a currency, Ethereum can be used for a variety of purposes. This has led to a vibrant ecosystem of developers and entrepreneurs building on the Ethereum platform.

DeFi is one of the most popular use cases for Ethereum. DeFi applications are built on blockchain technology and aim to create a more open and accessible financial system.

Some of the most popular DeFi applications built on Ethereum include decentralised exchanges (DEXs), lending protocols, and stablecoins.

NFTs are another popular use case for Ethereum. NFTs are unique digital assets stored on the blockchain, which allows creators such as artists and musicians to monetize their work in new ways. NFTs have grown in popularity in recent years, with high-profile sales including a $69 million sale of an NFT by digital artist Beeple.

Ethereum's scalability is a major challenge it faces. As more applications are built on the Ethereum platform, the network has become increasingly congested, leading to high transaction fees and slower transaction times. Ethereum 2.0 is a major upgrade that aims to address these scalability issues using sharding and other technologies.

In conclusion, Ethereum is a significant blockchain platform. It enables the creation of smart contracts, DAOs, and other decentralised applications, which have the potential to transform industries and create a more transparent world. Despite the scalability challenges,

Ethereum's flexibility and vibrant ecosystem of developers and entrepreneurs make it an important platform for the future.

The Multi-Armed Bandit

by Ved Gadge

The multi-armed bandit problem is one of the classic problems in decision theory and machine learning. The problem involves a gambler trying to maximize their winnings by choosing which of the several slot machines in that casino to play. Each slot machine ("one-armed bandit") has a probability distribution behind it which decides the paying reward and the gambler must decide which machine to choose from the all of them to get the maximum returns.

In more general sense there's a trade-off between Exploration and Exploitation. The longer the time gambler takes to figure out which machine to play, the more money will be spent on going through all the wrong machines. In other terms the gambler needs to explore the machines to figure out which one of them is the best one, and at the same time, as soon as possible start exploiting the best machine to get the maximum return.

There is a fundamental key concept behind the analysis of the multi-armed bandit problem and that is regret. Regret is mathematically defined as the difference between the expected reward that a gambler would have received if they had known the optimal machine to play, and the actual reward that the gambler received. The longer the gambler explores the non-optimal machines the higher the regret, but at the same time if they do no explore for long enough then a suboptimal machine might appear to be as optimal machine. The goal of algorithms for multi-armed bandit problem is to minimize the regret over time, in order to maximize the total reward earned by the gambler.

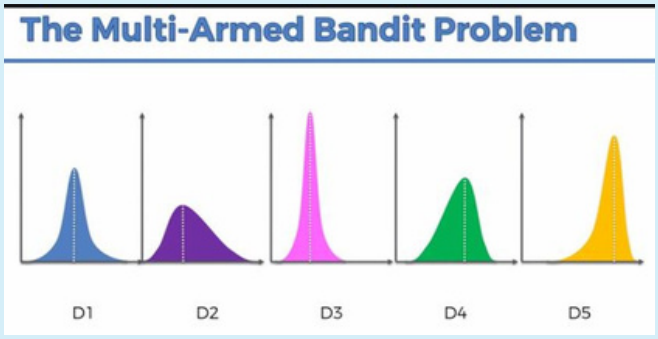
The multi-armed bandit problem has many real-world applications, such as in clinical trials where a new treatment needs to be tested, in online advertising where different ad variants need to be shown to maximize clicks, and in reinforcement learning where an agent needs to learn the optimal policy through trial and error.

There are several approaches to solving the multi-armed bandit problem, such as the epsilon-greedy method, the upper confidence bound (UCB) algorithm, and Thompson sampling. Each of these methods balances exploration and exploitation differently and has its own advantages and disadvantages. The choice of method depends on the specific problem at hand and the available information about the bandit arms.

The Multi-Armed Bandit

Upper Confidence Bound (UCB) Algorithm

The basic idea behind UCB is to balance exploration and exploitation by using uncertainty estimates to choose which machine to play.



- **The algorithm assumes a starting point assuming that each machine provides the same return.**
- **Create a confidence band, it is designed in such a way, the confidence bound will include the actual expected return. Initially it can be very large.**
- **Out of all of them we pick the machine with the highest confidence bound, initially it can be any machine right (pick any).**
- **We pull the arm of that machine, and check it wins or loses money (if loses), the starting point (observed average value) value goes down.**
- **Now as we have an extra observation and the confidence bound becomes smaller.**
- **Repeat this process to find the machine with the highest confidence bound.**

The algorithm works as follows:

1. **Initialize the algorithm by playing each machine once.**
2. **At each subsequent time step t, calculate the upper confidence bound U_k(t) for each machine k, based on the observed rewards and the number of times that machine has been played.**
3. **Choose the machine with the highest upper confidence bound, i.e., choose the machine k that maximizes U_k(t).**
4. **Play machine k, observe the reward, and update the estimates of the expected reward for that machine and the number of times it has been played.**
5. **Repeat steps 2-4 until a specified number of rounds of play have been completed.**

Formula :- U_k(t) = Q_k(t-1) + c * sqrt(log(t) / N_k(t-1))

Q_k(t-1) is the estimated expected reward for machine k up to time t-1

N_k(t-1) is the number of times that machine k has been played up to time t-1

c is a tuning parameter that controls the level of exploration.

The term sqrt(log(t) / N_k(t-1)) represents the uncertainty or variance in the estimate of the expected reward for machine k.

The UCB algorithm balances exploration and exploitation by selecting the machine with the highest upper confidence bound, which balances the expected reward for that machine (exploitation) with its uncertainty (exploration). The tuning parameter c determines the level of exploration, with larger values of c resulting in more exploration and smaller values of c resulting in more exploitation.

Overall, the UCB algorithm is a popular and effective approach for solving the multi-armed bandit problem. By using upper confidence bounds to balance exploration and exploitation, the algorithm is able to efficiently learn the optimal arm to pull over time, while minimizing the regret incurred.

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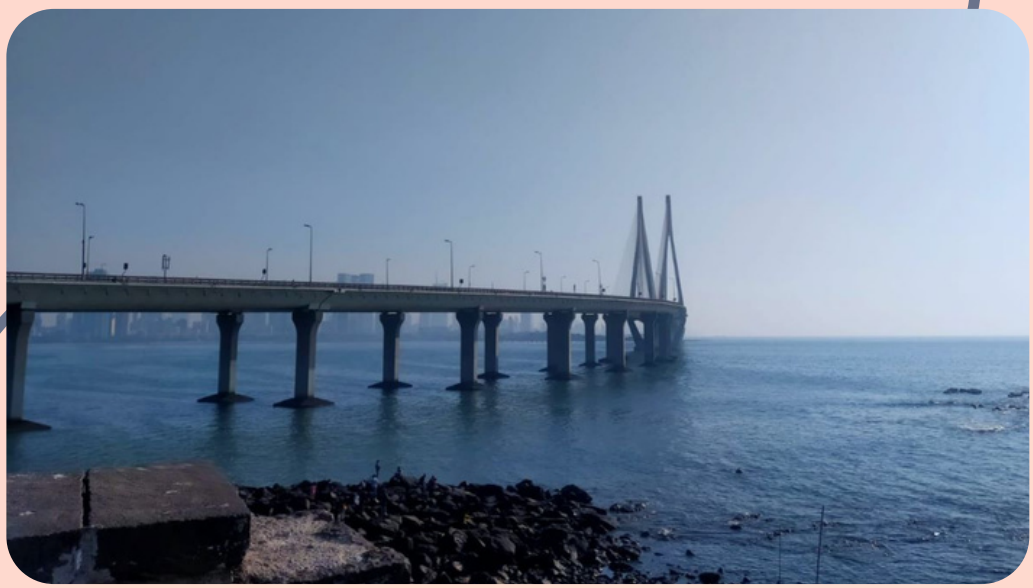
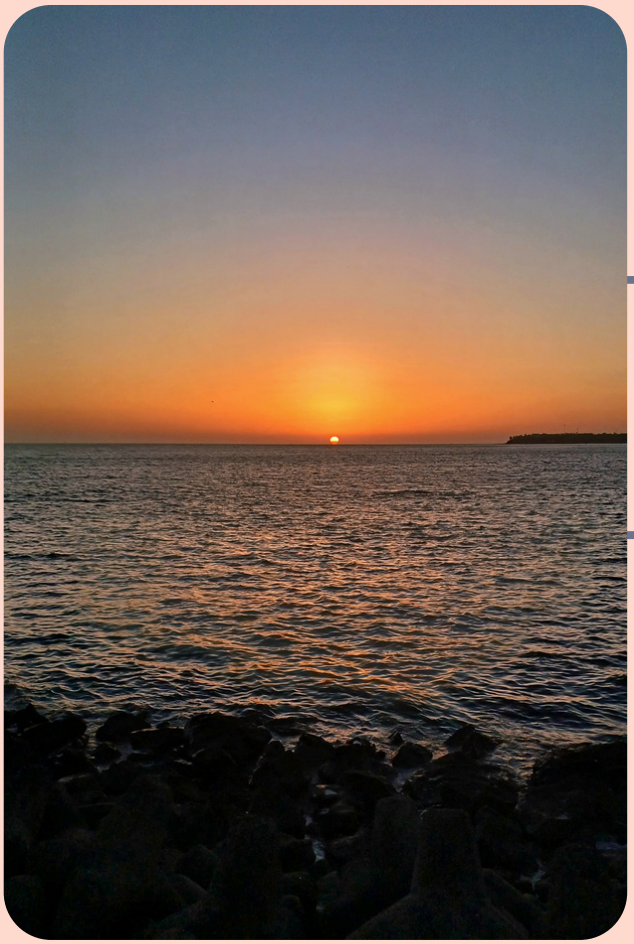


Photos taken by **Mitesh Singh**



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