IITISoC'21 SELECTED LIST OF PROJECTS

● Web/App Development

1) Covid survivors //Beginner

Project Description: A platform where details(age, address, blood group, contact no.) of the covid+ patients who have been recovered will be registered with authentication so that it can be used later by the needy. Providing an open chat option for others to take advice and help keeping patients mentally healthy.

2) Alumni Cell Website //Beginner

Project Description: Alumni Cell Website of IIT Indore which keeps track of all the achievements of our Alumni, Feed events for Alumni, give Alumni's Login option, profile(containing certificate collection) & groups to chat among themselves. Can include some gallery of convocation. Complete solution for after College connection.

3) E-Cell Website //Beginner

Project Description: E-Cell Website of IIT Indore used for outreach of IITI's startups and entrepreneurship. Containing blogs and event feeds with some nationwide Entrepreneur Events and competitions.

4) Daily Sleep Tracker App //Beginner

Project Description: Irregular sleeping patterns are a common problem. This web app will fulfill the user's needs in tracking their sleeping patterns, including duration and timings. You will create a web app to track three parameters: sleep time, wake up time, and sleep duration. Users can add, edit, or remove any sleep entries.

5) Personal website with randomly generated design //Beginner

Project Description: A personal website is the #1 most common first project for budding front-end developers. Here, we're going to build a simple personal website with a twist, by including a randomly generated stylesheet that updates every hour, totally refreshing the design of your website.

6) Online Photo Collage tool //Beginner

Project Description: As many of us want to post photo collages in social media, it's useful to have an online tool to do simple image combinations without needing to open an image processing program. This collage tool will enable the user to upload images and stitch them together in a neat row or a column.

7) Stock Watcher //Beginner

Project Description: You will create an application that can monitor and share stock portfolios efficiently with friends. The app should include the ability to monitor investments in order to help investors decide the next steps.

8) Healthcare management //Beginner

Project Description: Management system for IIT Indore healthcare center for online appointment and advice based on symptoms. Keep the health history of students and staff for doctors' ease.

9) Project management system //Intermediate

Project Description: The should have a framework of a basic social media site with users being able to communicate with each other. Users should be able to create projects and tasks within projects. Users must be able to assign tasks to other users and must be able to comment on it just like on a social media post. To start with, each user can have a calendar view and a kanban style board. Users must be able to close and archive tasks as well as projects when completed.

10) Maths //Intermediate

Project Description: Make an app related to Maths in which all the arithmetic operations, graphs, advance calculations, etc. All can be done with the help of this web app**.**

11) Customisable meeting scheduler //Intermediate

Project Description: A website that will tabulate daily meetings(replicate their timetable). One can create slots and add links, so when they have to join a daily class, they can just click the link in the table. They will also be able to set reminders of any important meetings/work.

12) Youtube for IITI //Intermediate

Project Description: A youtube clone for IITI community where clubs and councils will store their webinars, workshop & event recordings making it easy for others to access. Can include class recording too for online semesters.

13) ClassRoom for IITI //Intermediate

Project Description: Google classroom clone for IITI community all the study materials can be stored and fetched in a user-interactive manner for use. Connecting drives data directly to the web using the APIs provided by Google AppScript for drive.

14) Journal entry app //Intermediate

Project Description: A web app that has an interface like any social media app, one can connect to their friends but a limited number will be allowed to achieve the purpose of it. It will provide the user with an interface in which everyone's journal entry would be shown which they will write every day. Content of journal would all depend on the user how much and what they want to share, this will automatically let our close friends know what is going in each other's lives, can inspire each other or get motivated themself, many different options like whom to allow to see a journal post, would be present to make things comfortable to users. This would act as a self-development, social app to maintain external and internal peace of mind.

15) TRADATA: Algo trading app //Intermediate

Project Description: An app that not only helps to do algo trading but also serves the purpose of letting the users benchmark a particular algorithm against a particular stock, sector or other algorithm and compare the results while also allowing it to collect data on the users' choice to actively make the algorithm more effective and efficient to build such a way that not only generates profit for the user but the profit grows higher instead of diminishing returns as more people use it besides tackling the chance of recession or depression in the economy.

14) Restaurant social website //Intermediate

Project Description: You'll build a web app to consume the Google Maps API and use Firebase, and build a social restaurants app for the web!

15) Online Chess Platform Website //Advanced

Project Description: A fully functional online chess platform website (somewhat like a simpler version of lichess/chess.com) which has functionalities like live games, daily puzzle, rating system, learning sections for openings as well as tactics & strategies, and so on.

16) Web-App/Website for Visualization of Graph Algorithms //Advanced

Project Description: We can use graphics to visualise different algorithms such as DFS, BFS, Dijkstra, Bellman-Ford, etc.

17) VOTECHAIN: Voting app based on blockchain technology //Advance

Project Description: A secure voting web app that works on the principle of proof of work concept of the blockchain technology of the ethereum platform where voters transfer their votes using public and an encryption key and multiple computers verify the vote and add it to the blockchain to make sure there is no manipulation of votes which has no chances of being hacked and the computers doing the work of verifying votes get rewarded with small amount of cryptocurrency or vouchers in case of in college election that can be used in mess or transferred to other peers.

18) Code Editor //Advance

Project Description: web app that provides you IDE for writing, editing, compiling and then running your code in different programming languages.

● AI/ML

1) News Articles Summarizer in Multiple Languages //Advanced

Description: Develop an effective end to end solution which accepts informative articles in common languages used in India and summarizes them with a proper headline. Further, as an addition, it should also be able to answer questions regarding the article to the user.

2) Sentiment Analysis and Emotion Detection //Beginner

Description: A model to gauge Sentiment of a given text/review. Additionally, it must be able to detect emotions in the underlying text.

3) Image Captioning/ Video Summarizer //Intermediate

Description: Caption an image using DNN (Transfer Learning). Additionally, this project can be extended to Video Summarization using NLP.

4) Stone, Paper, Scissors //Beginner

Description: Implement simple game using CV

5) Mask Detection //Beginner

Description: Detects whether a person is wearing a face mask or not.

6)Loan Status Prediction //Beginner

Description: Predicts whether the user got the loan or not based on the features like education, marital status, income, dependents etc.

7) Fake news detection //Intermediate

Description: Develop a machine learning model to identify whether an article falls under the class of fake news or not.

8) Ads Click-Through Rate (CTR) Prediction //Intermediate

Description: Given a user and the page he (or she) is visiting, find the probability that he (or she) will click on a given ad. The goal of this analysis is to benchmark the most accurate ML algorithms for CTR estimation.

9) Toxic Comment Classification Challenge //Beginner

Description: Build a solution that detects and flags toxic comments.

10) Recommendation system //Intermediate

Description: Can additionally do spoiler detection in reviews and hiding(some web dev related stuff).

11) Face Recognition //Intermediate

Description: Recognize faces in an image using one shot learning. Additionally, develop a web interface for the same.

● <u>Miscellaneous</u>

1) Smart Gallery //Advanced

Project Description: A photos web app, which organises your photos, helps you find them in an easier way by allowing you to search photos using words. E.g. Upon searching 'bicycle' it will provide you with images containing bicycles from your photos. Web App will store your photos like a gallery app, and allow you to search through them using machine learning. A pretrained image captioning model to store tags for different photos.

Domain: Web + AI/ML

2) Inventory App //Intermediate

Project Description: An mobile app that keeps track of Students' Gymkhana inventory containing items of decoration, chairs, speakers, mics, digital equipment like Ardiuno, batteries, chips, sensors, etc. This should serve the purpose of easy sharing of these items among clubs. Clubs will register for their event with required inventory then Admin will confirm and provide it.

Domain: App Development

3) Gymkhana App //Intermediate

Project Description: An mobile app that keeps track of Students' Gymkhana events, clubs, and students data providing complete solutions for students to make their college life comfortable.

Domain: App Development

4) Infinity-Remote //Intermediate

Project Description: A remote controller (extension + smartphone app/PWA) to control youtube and other video streaming sites remotely from a smartphone. QR code will be used to connect web applications on your laptop to your smartphone for remote control.

Domain: Chrome extensions