



# LOC 3.0

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*What is a good idea if it remains an idea?*

## **TRY. EXPERIMENT. FAIL. ITERATE.**

At DJ-ACM, team Lines of Code (LoC) decided to tackle present day concerns head on with pertinent problem statements that enumerate the issues within different domains and suggest fitting features. While our recommendations are meant to give direction to the final project submission, creativity in addressing the underlying issues is celebrated. The more ingenious the features, the more unique your project and the more likely you are to win! We want the the next generation of engineers, designers, and developers to collaborate to address real word problems.

Ready, set, here are the problem statements –



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## PROBLEM STATEMENTS

### 1. One's Own Therapeutic Place

Mental health includes our emotional, psychological, and social well-being. It affects how we think, feel, and act. It also helps determine how we handle stress, relate to others, and make choices. Mental health is pivotal at every stage of life, from childhood and adolescence through adulthood. The Covid-19 pandemic has not only taken lives and targeted the physical health of people all around the world but also left psychological scars on the mental health of millions worldwide. Lack of interaction owing to social distancing, isolation, financial worries and other such problems in these unprecedented times have increased the levels of anxiety, fear, depression and emotional distress in people.

Develop a technical solution, to help them keep a check on their mental well-being and progressively improving it, thereby providing a virtual therapeutic environment.

The suggested features are\*:

- Help increase awareness and give its users easy access to resources and therapy that will help them overcome their mental health issues.
- Provide a platform where users can participate in virtual forums, share their own journey and connect with individuals who have fought similar battles and have emerged stronger.
- Allow users to connect with counsellors via chat facility ensuring user's privacy, set up virtual meets and maintain a calendar/diary for the same.

\* Kindly note these are only "suggested features" you are free to use any or all of them along with additional features of your own, as brownie points will be provided for creativity.



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### 2. **My Fitness Community**

Fitness has always been pivotal in the lives of many, however, because of the pandemic they have been restricted to their homes. In such strange times, where the gyms remain shut people have taken to setting up their equipment at home, however what they miss the most is their fitness community at the gym that motivates them. The shutdowns have left thousands yearning for the community they once had at a gym.

Create a platform that allows fitness enthusiasts to connect, compete and communicate- sharing their exercise regimens, diets and gains with their buddies and trainers!

The suggested features are\*:

- Enable users to connect with other people, share their regimes and gain valuable insight.
- Maintain a scoreboard among the connections based on calories burnt, steps and other measurable metrics. A pseudo fitness tracker that tracks data in real-time can be used to update the scoreboard.
- Moderate posts that the users put up on the application, ensuring no illicit content is being promoted
- Use notifications to remind users about their daily fitness goals and suggest suitable exercises from time to time.

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### 3. Travel Buddy

'All those who wander are not lost', travelling around the world is a delightful experience enjoyed by many. However getting a clear understanding of the lay of the land, language and currency are few the ordeals travellers face. This deters several people from exploring the unknown and is a cause of distress.

Develop a potential technical solution to relieve travellers of such difficulties, by providing a virtual travel assistant to help them get around with ease, because exploring places and cultures should never be stressful.

The suggested features are\*:

- The user must be provided with the detailed information of the place he/she is planning to or currently visiting. It should not only show basic information like tourist attractions, weather, food habits of the place but also local specialities so that people can plan their journey accordingly.
- Translator which will facilitate communication with locals.
- Include a feature which will help the users track their expenses, calculate and convert any expense to the preferred currency.
- Help the user navigate around the city according to his or her choice of location and provide insightful suggestions about the same.

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### 4. Hyperpersonalized Offer Manager

The coronavirus outbreak has triggered unprecedented mass layoffs and furloughs. During this time of economic uncertainty, the age old philosophy of 'a penny saved is a penny earned' rings more true than ever. Digital marketing is now more ubiquitous than ever with Users being bombarded with offers and coupons via SMS, email, third party websites. It becomes difficult for the user to find the right offer at the right time, using the campaigns to their advantage.

An AI based hyper personalized offer manager app can solve this problem very efficiently.

The suggested features are\*:

- Take details of the credit and debit cards used by the user
- Get offer details like coupon codes, offer expiry date, T&C, and sale specifications by scraping data from the bank websites (for offers related to user's card type), or by reading the user's SMS/Email. Natural Language Processing(NLP) can help interpret the data collected.
- Allow the user to take a photo of a desired offer/coupon on a website, physical pamphlets, marketing hoardings etc. and create an OCR to enable the integration of these offers within your platform.
- Categorize and present all the information to users in an intuitive manner on your platform. Google Point of interest & Places API can be used to automatically show the relevant offers to the users based on the merchant and brand location. To ensure absolute convenience, the platform can send in reminders for expiring offers/coupon codes.

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### 5. Virtual Clinic

The COVID-19 pandemic has forced life activities to be online as much as possible, be it ordering groceries, medicines or day to day education. This has also forced a rapid innovation in the field of diagnosis, prognosis, and medical treatments. Telehealth is one such field which has been facing new developments.

Such a situation has empowered Telehealth and Online consultation as well. It has enabled people to remotely consult doctors and doctors in turn, can remotely diagnose and sometimes, treat the patients.

Keeping this in mind, create a platform/an app, wherein users can consult their respective doctors regarding their illness/issues.

The suggested features are\*:

- Allow the patient to book impeccable appointments.
- Allow the patient to intuitively search by dr's specialisation and dr's name.
- Enable the app to have features for consultation between patient and doctor.
- The patient should upload required medical reports/certificates (if required) before booking an appointment.
- Reminder notifications for appointments

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### 6. Virtual Classrooms

The COVID-19 pandemic has been responsible for rapid and drastic change across the world — and perhaps one of the most dramatic shifts was education's move to a virtual setting. The structure of schooling and learning, including teaching and assessment methodologies, are also affected by these closures.

Create a website/app to simplify learning and provide maximal convenience so that students can continue to focus on their Education. Enable common classroom features to make the app/website robust. Allow Teachers to create groups based on any emergent criteria. After all , if Education is a fundamental right of every child, Education needs to be fundamentally right for every child.

The suggested features are\*:

- Allow teachers to create and students to submit Assignments and Quizzes to supplement the classroom. Notify students when tasks are assigned , submissions are due or tests are graded.
- Enable Topic wise filtering to help students focus on the concepts they find challenging. Generate Analytics and reports for classroom performance to help teachers estimate concepts that are not fully grasped by a significant number of students.
- Enable Real-time lectures for virtual education allowing educators and learners to interact, perform a quick check-in and review direction and facilitate recording attendance.

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### 7. Job Portal For All

The COVID-19 pandemic has raised unprecedented challenges to the world. The economic and social disruption caused by the pandemic is devastating. During the pandemic there were huge layoffs and a lot of people lost their jobs and are facing a livelihood crisis and have made it close to impossible to make both ends meet.

In these troubling situations provide a technical solution whereby workers and contractors can find one another, thus finding new opportunities and getting new means of livelihood.

The suggested features are\*:

- Match profiles of potential employees to job descriptions based on data collected about their qualifications, experience and preferences. You could use resume filtering techniques or design a lucid form that collects the details.
- Allow workers to view the website/ application in their colloquial language.
- Facilitate navigation from their current location to their workplace.

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