

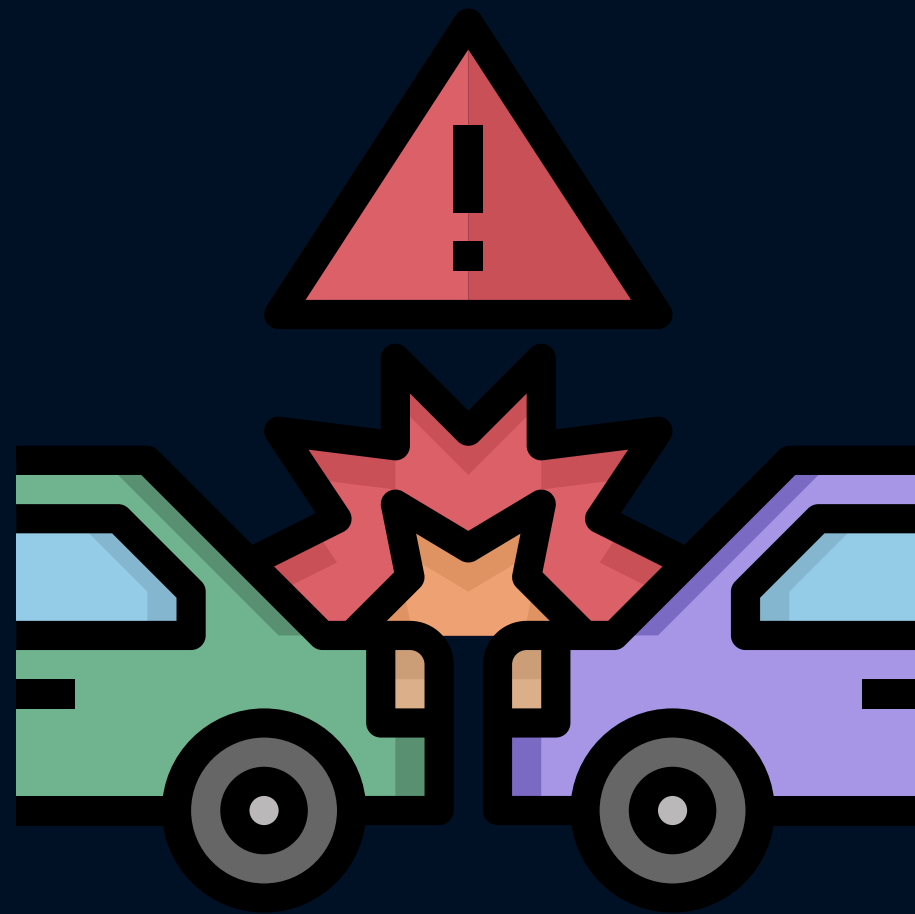


Problem Statements

Important Points to Remember

- The idea submission phase is from **26th Dec'21** to **4th Jan'22**
- Teams need to select any one of the problem statements and only one member needs to submit their idea.
- Once the idea is submitted, teams will receive the RSVP for the hackathon.
- All the projects should be developed during the 36 hours of the hackathon from scratch. Hence no build is allowed before **10 pm, 7th Jan'22**.
- While we have provided suggestions with each Problem Statement, we don't expect you to restrict yourselves to them.
- Post your doubts and queries in the *#ask-me-anything* channel on our [discord server](#).

Road Safety



Road mishaps are a constant concern for public safety, particularly in developing countries. Overloaded vehicles, worsening road conditions, lack of awareness or safe road use, drowsiness and poor driver training are among many reasons for the high levels of road traffic accidents. Design an effective solution for road safety.

Suggestions:

- GPS enabled accident reporting app with damage assessment through photographs.
- Black spot mapping of accident hotspots and alerting nearby drivers.
- Drowsiness and distraction detection of a driver.

Smart City **Management**

Cities across the globe are witnessing significant urbanization. In the next 15 years, India will see about 200 million people migrating to cities. Traditional cities must adopt technology-based solutions to help in their growth, operations and meet their population demands. Develop solutions to make make our cities more efficient and intelligent.

Suggestions:

- GPS enabled real-time tracking system for buses.
- Automated parking management systems
- Road condition assessment and pothole reporting systems



Agriculture **Sector**



Agriculture is the primary source of livelihood for about 58% of India's population. Most of the people engaged in this sector have not taken proper education which affects the yearly yield. Develop technological solutions for the benefit of Indian farmers.

Suggestions:

- Crop prediction and monitoring systems.
- Translate weather information to actionable advisory to farmers.
- Animal trespassing alarm system.

Developer Tools

Developing is not an easy task and as a developer, we love to automate our workflow and be as lazy as we can. So in developer tools, we can create the tools that help in testing, deploying, managing projects, etc.

Suggestions:

- Tool to automate the generation of boilerplates.
- Innovative npm/pip packages, web scrappers, browser extensions, etc.
- Bots/scripts for automating common git, GitHub and VSCode tasks.



Tech for **Everyone**



In this tech-savvy world, some people are disconnected from technology and often feel lost in the phase of rapid development. Due to this, they often witness a decrease in efficiency and productivity. Develop a solution that will assist people to overcome their aversion to learning new technology and allow them to learn more easily.

Suggestions:

- Solutions to illustrate technical aspects in a simple manner.
- Make navigation on software easier with multilingual voice commands.
- Gamification of common tasks.

Finance Management

In the past few years, FinTech has emerged as a new model for financial innovation. With many emerging unicorns, we are assured that there is still a lot to develop in the FinTech ecosystem. Develop innovative financial solutions catering to customers and businesses.

Suggestions:

- A platform to maintain and trade NFTs.
- Price Tracker for stocks and cryptocurrencies.
- Decentralization or semi-decentralization of financial institutions.
- Improving confidentiality of data, even on the cloud.



Personal Growth & Well-Being



Personal growth can help people suffering from anxiety or depression by growing stronger emotionally and mentally. A healthy mental state is essential for improving oneself. However, there are times when external forces and bad habits can slow us down or throw us off track. Develop solutions to minimize or eliminate these barriers that will pave the way to a more successful future.

Suggestions:

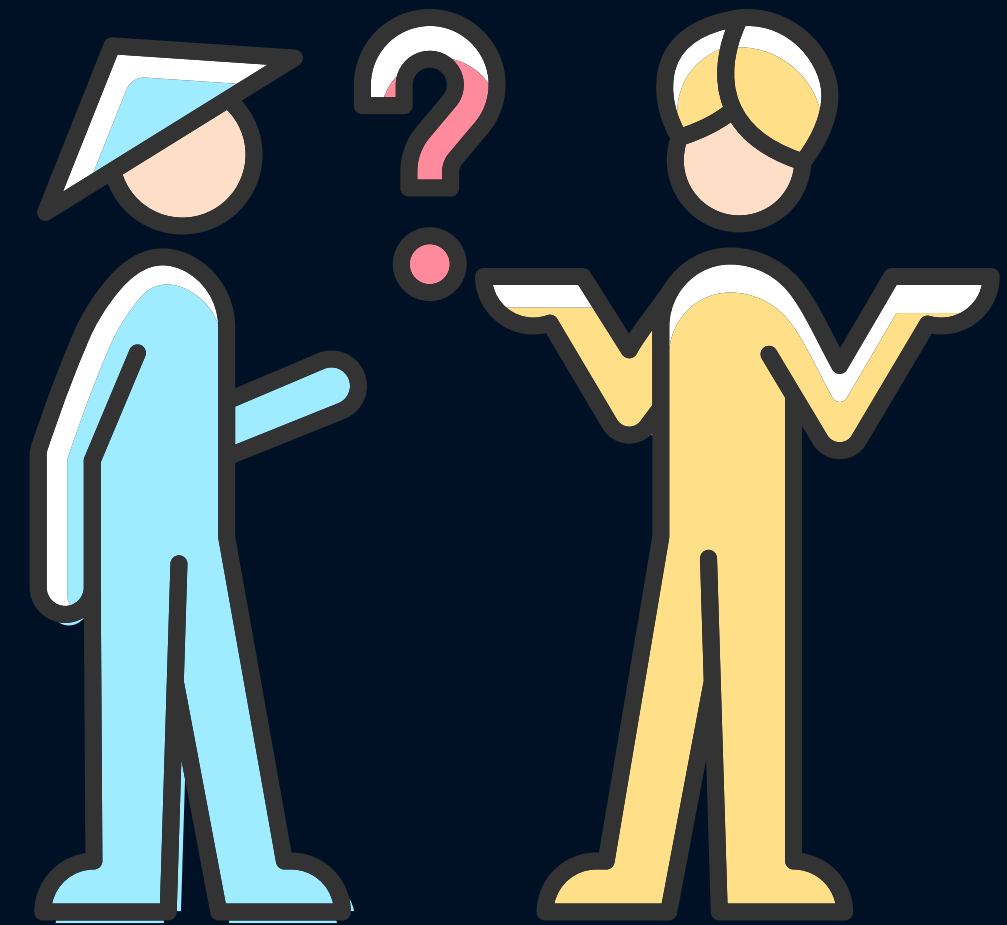
- Plan and improve healthy food habits.
- Address the problem of increased screen time.
- Helping people reach their goals by managing their routines

Breaking the Language Barrier

Modern communication technologies and increasingly faster modes of travel have nearly eliminated geographical barriers between people. The bigger issue that arises as a result of this is the disparity in spoken languages, which makes it harder to exchange ideas. Design a solution to bridge the gap and allow for more productive conversations.

Suggestions:

- Real-time language translators, for travellers, to easily deal with local people.
- Translation of government documents into native languages for better conveyance.
- AI to perform standard mobile tasks using native speech.



Waste Management



Improper waste disposal has huge environmental impacts and can cause serious problems. The most important reason for proper waste management is to protect the environment and for the health and safety of all. Develop a solution to tackle the waste management crisis.

Suggestions:

- GPS enabled efficient garbage collection system.
- Waste segregation system.
- Dustbin locator system

Workout & Fitness

The physical fitness and health among the work-from-home folks during the pandemic have been degraded. People have lost interest to exercise alone in a virtual environment, resulting in higher obesity levels. Come up with ideas to promote physical fitness in virtual mode.

Suggestions:

- Track users' fitness activities and suggest personalized workout plans.
- Give real-time feedback and accuracy of user's exercise movements.
- Develop solutions to host online exercise competitions among peers.



Open **Innovation**



We don't want our hackers to limit their ideas. So we also have an Open Innovation track where hackers can come up with their own ideas, and build awesome innovative projects in the following domains :

- **Blockchain & Cryptography**
- **AR/VR**
- **Cyber Security**



So, now that you have read every Problem Statement, please take time to understand it thoroughly.

We wish you all, Best of Luck!

~ Team **Dot**Slash 5.0