HACK-A-SOL 2.0

Problem Statements

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- **TRACK-1:**

The COVID-19 pandemic led to the worst healthcare crisis the world has seen since the Spanish Flu. According to many domain experts, proper management of resources could have avoided most of the shortcomings of the healthcare industry. In his TED talk, "The next outbreak", Bill Gates predicted the possibility of a worldwide pandemic five years before COVID-19. He further highlighted the need for improving the efficiency of the existing healthcare provisions. The second wave caused an acute shortage of beds, oxygen and ambulances across India. Many hospitals had to work at maximum capacity, while some had free beds and abundant resources to treat their patients.

Develop a system to tackle the new normal and prevent the impact of future waves of the pandemic on our society. A few suggestions include rapid detection of COVID-19, contact tracking using blockchain technology, smart management of resources like oxygen and beds and contactless consultation systems, sharing and protection of patient details and any other developed using technologies like AI, Blockchain, IoT etc.to tackle the new normal.

- **TRACK-2:**

More than 56% of India's population is involved in agriculture. Out of this, more than 20% of the farmers live below the poverty line. A notable reason for this is the presence of middlemen. Fearing deterioration of crops, farmers often get exploited into selling their produce at low prices to middlemen, who then sell at much higher costs. We live in a world where technology is at the heart of our everyday lives. Similar to the transformations in other sectors, technology is sure to shape farming practices. Technology can transform Indian agriculture by addressing challenges related to quality, quantity, distribution and storage.

Participants have to develop a solution with agriculture :

- Crop monitoring systems
- Crop yield prediction systems
- IoT based crop health systems
- Solutions to connect farmers to consumers directly (cut out middle man)
- Soil health monitoring
- Sustainable farming solutions using AI/ML
- Data driven techniques and smart IoT

This list is only suggestive and you may choose any problem outside this list to solve during the hackathon. Just remember to do your research and pick a good problem.

● TRACK-3:

Contracts, transactions, and the records of them are among the defining structures in our economic, legal, and political systems. They protect assets and set organizational boundaries. They establish and verify identities and chronicle events. They govern interactions among nations, organizations, communities, and individuals. They guide managerial and social action. And yet these critical tools and the bureaucracies formed to manage them have not kept up with the economy's digital transformation. They're like a rush-hour gridlock trapping a Formula 1 race car. In a digital world, the way we regulate and maintain administrative control has to change.

Blockchain promises to solve this problem. The technology at the heart of bitcoin and other virtual currencies, blockchain is an open, distributed ledger that can record transactions between two parties efficiently and in a verifiable and permanent way. The ledger itself can also be programmed to trigger transactions automatically.

Participants have to develop a solution with Blockchain :

- Personal Security and Security of Assets using Blockchain.
- Securing personal details and assets, make online verification systems seamless and one stop using Blockchain.
- FinTech solutions.
- IoT systems security like smart house locking systems etc.
- Business and Retail solutions
- Entertainment: How do we restrict illegal sharing of movies so that only paid audiences can watch the content, content security.

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● TRACK-4:

Open Innovation
For example :
You could help these companies solve some industry level problems.

1. **MSG9** by **Walkover** is a cloud communication platform that offers robust messaging solutions to empower business communications.
2. **TECHB** is a 3D Printer and Electronics manufacturing company headquartered in Bhilai, Chhattisgarh (C.G.), that currently focuses on producing 3D Printers and TeachPAD (Exclusively by **TECHB**) in India. Their idea is to work on localization of manufacturing such that every house and institution has its very own mini-factory called a 3D Printer.
3. **Zeapl** is a low code enterprise business accelerator platform, which simplifies regular mundane processes in enterprises through digital workflow automation & conversational AI. Brands like Proctor & Gamble, Marico, Tata Sky, TVS group, among others, are already using their platform in their digital transformation journey.