

1st International Hackathon - 2018

Problem Statement: - Blockchain

1 **Data Sharing for common data interfaces into various systems e.g. KYC data / Net worth /portfolio data.**

Sharing of data like KYC, Net worth, Identity Coupled with tokenization blockchain networks can be used share data securely and efficiently.

- a KYC update done in one system not reflecting in other system even for internal systems at financial institutions.
- b This can be a model on Private / Public block chain. Private can be implemented for internal systems; and public can be targeted for bigger common data sharing across the various entities.

2 **Real Time Record Maintenance**

The land records are important from a the perspective of

- a Title of a land unit needs to be confirmed with one owner and
- b There needs to be a clear trail & record of all transactions done regarding the unit. The land record are used by various other departments/stakeholders concerning a particular land e.g. registrar office for sale/registration, banks/co-operatives for farm loans, land acquisition department for village/town extension, roads, culverts etc. We need to have a trustworthy real-time record maintenance system capturing various attributes pertaining to a land.

- #### 3 **Smart Cities**
- requires the timely collection of data from citizens, devices and assets to analyse, monitor and manage transportation systems, law enforcement, water supply networks waste management, hospitals, and other community services. It requires timely sharing, updating and securing information from different sources. But government departments have functional interdependence but operate in silos, which impacts the availability of services and deteriorates citizen experience. Create a solution using blockchain technology that can be used to break the silos, check government corruption (if any), increase efficiency and transparency. Linking file and data movement between departments through a blockchain would increase visibility into the process and ensure that the data/file moves forward in real time.

Problem Statement:- IoT

- 1 **Amalgamation of Weather Forecast** (Rainfall, Precipitation, Humidity, Temperature & other standard weather parameters) from multiple free public data streams & APIs (Yahoo weather, Accu-weather, Forecastlo, Weather Underground, Aeriis-weather, Open-weather Map etc.& many more. A more detailed list can be furnished later) & amalgamate these through some statistical averaging to produce a single integrated weather forecast stream for a particular geo location within a 2 Km radius. We would like to provide this information on our App & also publish an API if possible.

- 2 **To produce a forecast model of agricultural produce through available real-time farm parameters** (sunlight, temperature, humidity, electrical conductivity, rainfall). Yield information of a selected farm is captured in an offline mode through Excel data sheets. The idea is to upload the excel data (via .csv, .txt or xml) to the application, compare with the historical farm parameter data, develop a correlation or suitable statistical technique/model & be able to forecast yield for a particular month in the near future. To integrate the application with a social media module (say a farmer's network) or a community (of botanists, entomologists) and be able to provide answers to real farm problems – pests, leaf conditions etc. within 24 hours.