

Assignment :

Module 5: Decentralised Finance

1. Blockchain and its current state of adoption

Group Assignment:

Earlier in the 100 days initiative, we understood the implementations of blockchain in various industries. The next two days comprise a group exercise where each set of participants within a group helps collectively come up with 3 relevant ideas where blockchain would add value. We encourage you all to use this opportunity to apply the information that was given earlier about blockchain's use-cases to find new use-cases of the technology. Brainstorming for novel implementations would definitely enable each and every one of you to understand the technology better.

While looking at finding use-cases of blockchain, keep in mind the following:

1. The trust deficit is a great indicator for a place where blockchain can bring in value.
2. If there is a monopoly somewhere, it would be a great place to explore a decentralized marketplace between small-time competitors. When looking at the success of the proposed implementation, its impact could be envisaged by checking for rising "discomfort" amongst people for the abuse of power by a centralized authority.
3. Start by exploring use-cases in the industries you are working in at the moment or have worked in the past at some point in time since you would have a better understanding or view of the same. Apart from that, it might help to explore use-cases in the finance, smart city, government, and agriculture space since these industries are seeing a genuine need for innovation.

Note: This is a base for your project in the future. So, please don't take it lightly.

Format of submission of the assignment: A collective GitHub page document for every group to be submitted. Marks from the assignment will be based on the novelty and appropriateness of the implementation.

Reference:- [Module 5](#)

Use Case-1 :-

- Topic:- Real Estate Investment Trust on Blockchain (Real Estate - Marketplace)
- Problem:-
 - Investing in real estate comes with a Price-Location trade-off.
 - Many investors have less ticket size due to which they couldn't buy a good property in prime locations.
 - If say few people come together and try to buy a property there would be a problem of trust and consensus among them.
 - REITs provide a way to invest in prime real estate but it won't be trustless i.e investors will have to depend on the reits manager. Also the reits are usually sold at inflated prices.
 - REITs can have a lot of entry barriers for certain groups of people, organisations or individuals to enter into thus creating a **monopoly** in the sector.
 - The process is long, hectic, needs a lot of paperwork and complex.
- Solution:-
 - Bring Real Estate REITs on blockchain.
 - Small real estate developers, organisations or individuals can come up with **their own marketplaces** where they would auction, trade and market their property in units or blocks.
 - Property units could be sold, bought and even derive more value as a collateral while taking **loans**.
 - Process will become easy and cost effective as there will be no big listing like the one on stock markets. Fees will be saved that have to be given to intermediaries.
 - Users can easily buy and sell property at their fingertips.
- Implementation:-
 - Solution is feasible to implement.

- All Public, Private or consortium types of implementation is possible depending on need.
- Hybrid Android-Blockchain architecture.

Use Case-2 :-

- Topic:- Counterfeit Product Tracking and Tracing (Supply Chain - Logistic - Luxury brands)
- Problem:-
 - Product counterfeit is a big issue.
 - Buyer gets cheated by a duplicate product that could be unreliable, not safe, ineffective, etc
 - Sell/Manufacturer may lose sales thus incurring less revenue as copy products get sold in the market.
 - Brands loose customers.
 - Govt. may lose tax as brands would generate less revenue and thus pay less tax.
 - Tracking Tracing could solve the problem but the logistic/supply chain data is centralised and the intermediary logistics businesses have **monopoly** over the data.
 - Data in centralised databases **cannot be trusted** as they could be manipulated.
- Solution and benefits:-
 - Bringing supply chain onto blockchain.
 - **Tracking and tracing** the entire product life cycle.
 - Bringing **transparency** to consumers. Eg: A brand claims to use artificial leather but not doing so could be detected.
 - Blockchain could open up more use cases for data oracles and researchers could study data as they wont be a monopoly of some central organization.
 - Government regulators and inspectors in the supply chain can leverage this system to work more efficiently.
- Implementation:-

- Solution is feasible to implement.
- All Public, Private or consortium types of implementation is possible depending on need.
- Hybrid Android-Blockchain architecture.