Group 3 Assignments Use Cases

Below are the different ideas shared by the group.

1. Supply Chain Management
    1. Identification of counterfeit Medicines using blockchain
    2. Supply Chain for e-commerce
    3. Suppy chain management of expensive wines
2. Fake News identification using Blockchain
3. Certificate issuance by universities
4. Decentralised social media platform
5. Intra company trading platform

Use Case 1: Supply Chain Management

1. Identification of counterfeit medicines
2. Supply chain for e-commerce
3. Supply chain management of expensive wines

Problem Statement:

- Costly medicines have lots of fakes (black market)
- Original manufactures does not know where the leak is and it is very difficult to handle fake medicine problem
- Medicines goes through more than 12 distribution nodes before it reaches customers (patients)
- Original manufactures are looking for
    - Building trust with consumers (patients) to identify fake – currently they run customer awareness programs
    - Have to relie on distributors to identify leakage points and build a trustable distribution network

Proposed Blockchain based solution:

1. Generate unique code through blockchain on every tablet/strip of medicines (blockchain asset)
2. Every transaction (movement from manufacture to warehouse/distribution house/carrier etc) would capture where in the distribution network the medicine moves in the distribution network untill it reaches the customer (patient)
3. Patient app that validates and verifies to identify of each of these medicines as original

Advantages of Blockchain system:

1. Easy recall of medicines

2. Easy tracking so that manufacturing plan can be optimised
3. Patients are aware of when the medicine would reach them and authenticiy of the medicine that is consumed.

Potential Challenges:

- Distribution network would not participate due to loss of customer information
- Distribution network would not like to be transparent with manufactures

Use Case 2: Fake news identification

Problem Statement:

- Today people are consuming huge amount of news in digital form
- It is very easy for people to get fed with fake news as can be seen with US elections, TRP ratings etc
- It become very important to identify which news is fake and which news is authentic.

Proposed Blockchain based solution:

- Identification of authentic source of news in the network
- Mechanism of consensus to identify which news is correct and which news is fake
- User feedback and fake news busters as source for ranking/rating news sources

Potential Challenges:

- Identification and on-boarding new sources of news and qualification of these news sources
- Incentive for users to provide feedback about fake news

Use Case 3: Certificate issuance by universities

Problem Statement:

- Industry is having challenges in identification of correct education certificates (both for jobs and international education
- Looking at a blockchain as a vault for certified degree certificates

Proposed Blockchain based solution:

1. Using a mix of LinkedIn and blockchain to validate and authenticate degree certifcates
2. Each student looking for a job or studying abroad would upload his/her certificates in blockchain
3. After the certificate is validated, it is confirmed as a authentic certificate and can be used
4. At a later stage, we can work with universities to validate and authenticate these certificates.

Potential Challenges:

- Need a very stong mechanism to validate these certificates

Use Case 4: Decenteralised Social Media

Problem Statement:

- Today centeralised social media captures personal data and makes profit based on my personal data
- We are looking at a platform that is decenteralised and do not monepolise personal data (i.e, personal data is made avaiable to all for use – fair play)

Proposed Blockchain based solution:

1. Customers are on-boarded based on trust
2. Customer are de-boarded based on consensus
3. All customer actions (posts/consumption of data) are made public via ledger
4. Anyone who participate in the blockchain would get access to personal data for any analytics
5. Ads placement and revenues are again treated as incentives for the network to share between the participating nodes/workers

Use Case 5: Intra-company trading/reconsilation

Due to aquisitations, MNCs have different accounting systems and approval workflows.

Reconsilation is a very time consuming activities where team spends time looking at historical data. The proposed solution is to automate this and establish trust between MNCs different regions by bringing in transparency across regions