

## **Synopsis of Work – Major Project**

**Title:** Decentralized Investment Platform for Stock-Exchange, NFTs and Real-Estate

**Project Code:** CS499

**Credits:** 8

**Faculty Supervisor:** Dr. Rajendra Hegadi, HOD, Dept. of DSAI

**Student Team:**

- Karthik Sajjan – 19BCS049
- Karusala Deepak Chowdary – 19BCS050
- Kuppa Venkata Krishna Paanchajanya – 19BCS063
- Vanga Manoj Sahit Reddy – 19BCS110

**Examiner:**

---

### **Problem Statement**

Investment in budding startups in contrast to well-established listed companies (companies which are part of the stock-exchange) works in a slightly haphazard fashion. There are a handful of platforms that offer a way to invest in the unlisted shares that these startups have to offer. Out of these handful, a very few are built on blockchain technology thereby making it decentralized and more secure. In case tokenization with the help of blockchain technology is employed to implement Customer Loyalty Programs on a decentralized investment platform, it will become one of its kind. In addition to unlisted shares of startups, real-estate and NFTs can also be included in such a platform from an investment perspective.

### **Proposed Method**

A Decentralized application (Dapp) can be developed that shall encompass an ensemble of features encouraging investors to invest on unlisted shares of start-up companies that show promising growth and sheer vision, real-estate, and NFTs. The Dapp shall be deployed on a private permissionless blockchain network (consortium blockchain) with Proof of Authority (PoA) as its consensus mechanism. In the process of developing the decentralized application, research surveys and studies will be taken up that support the necessity of this work and would aid the team in including aspects into their work that are preferable by today's investors.

## **Project Outcome**

We are planning on enhancing our work in Mini Project - II – “Investopolis” by adding new features and performing several research studies in various aspects as mentioned before. The list-wise tasks we intend to perform are as follows:

1. A Research Study on Reward Systems using Tokenization in Blockchain through high-end literature review and analysis
2. A Research Survey on Customer Loyalty Programs in the context of investments. We shall share a Google Form with our batchmates and extract data on what people expect from the Customer Loyalty programs in the current scenario.
3. Develop a Marketplace for Buying and Selling Stocks of ideators that have already been bought by a certain investor. This will enable second-hand, third-hand, ..., etc., exchange of shares
4. Develop a feature through which new NFTs, specifically digital arts, images of artworks, and photography can be minted and traded with interested buyers. It has been observed recently that the phenomenon of NFT collection and trading are getting less attention from target stakeholders. Thus, introducing reward-based customer loyalty programs, in this case, can boost their interest again in this field.
5. Develop a Real-Estate Investment Feature. We have previously worked on a project titled "Land Registry System" which enabled users to register their properties in turn aiding in the mitigation of transaction frauds in real estate and illegal land occupancies. We can extend the work in the context of investments, in addition to the registration segment, and integrate it into the platform
6. The existing "Messages" feature of the platform uses smart contracts to store the messages, which has certain limitations in storage capacities. We shall change the architecture of that feature by employing IPFS to overcome that challenge.
7. Deploy the Platform onto the cloud in a Private Blockchain Network. We intend to use AWS Managed Blockchain Service (MBS) for this purpose

This list shall dynamically expand as and when new features are ideated and included.

**Project Schedule and Distribution of Work:** Refer to the Gantt Chart

--- END OF DOCUMENT ---