

FTGP Group 1: Sprint 1 Report (22nd March)

Team Members:

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Product Vision:

Develop a blockchain-based crowdfunding platform that empowers small and micro start-ups to secure funding through a transparent, milestone-based process. The platform contains two roles: administrator and general user, who is the main body of the crowdfunding, and administrator reviews each crowdfunding platform. The platform will support both equity-based and reward-based crowdfunding, featuring decentralized identity verification to enhance security and trust among users.

Sprint 1 Planning (Sprint duration 22nd March – 19th April):

This should summarize your sprint planning meeting. The meeting should be done at the beginning of each sprint. You must specify your sprint vision and select which items from the product backlog you plan on completing during the next sprint (sprint backlog). Additionally, you must select the product owner and the scrum master.

Product Owner: Jingkun Yang (Define product vision, manage product backlog, make decisions)

Scrum Master: Freddie Yu (Promote scrum practice, team collaboration and continuous improvement)

Sprint Vision:

This sprint will focus on basically completing the core functions of the milestone-based crowdfunding platform. This includes setting up the initial project architecture, developing smart contract templates for crowdfunding operations, and initiating the design of the user interface focusing on user registration, project submission, and browsing functionalities.

Sprint Backlog:

Project Setup and Architecture:

- Repository Initialization: Establish dedicated repositories for the frontend, backend, and smart contracts to organize and separate concerns effectively.
- Technology Stack: Confirm the selection of Ethereum for blockchain, Node.js for the backend, React for the frontend, and MongoDB for the database, documenting the rationale and setup instructions.
- Architecture Design: Design a cohesive system architecture that integrates blockchain operations with traditional server-side logic, highlighting the interaction between smart contracts and application layers.

- Role Configuration: Include two roles, Administrator and Regular User. Regular Users are able to post their own crowdfunding campaigns and contribute to others' campaigns. Administrators are tasked with reviewing crowdfunding submissions to ensure content is appropriate for publication and adheres to platform policies before it goes live.

Smart Contracts Development:

- Funding Contract: Create a smart contract for secure fund collection, storing backers' contributions until predefined project milestones are met.
- Milestone Contract: Develop a contract allowing creators to submit milestone completion evidence for manual verification by the platform team.
- Equity Tokenization: Initiate the creation of a contract for issuing, trading, and managing equity tokens for projects, detailing the tokenomics and functionality.

UI/UX Design:

- UI Style Guide: Formulate a UI style guide that standardizes color schemes, typography, and interface elements to ensure a cohesive user experience across the platform.

Decentralized Identity Verification:

- Select Identity Verification Solution: Research and select a third-party decentralized identity verification service that integrates with blockchain.
- Design Integration Plan: Outline the steps and requirements for integrating the chosen identity verification solution with the platform's user registration and login flow.

Backend Infrastructure:

- Backend Setup: Initialize the backend structure, incorporating necessary packages and middleware for robust API development.
- Database Design: Craft a scalable and efficient database schema for managing users, projects, and transactions, including detailed documentation.
- API Development: Commence building RESTful APIs for critical functions such as user registration (with blockchain integration) and project submissions.

Anything else you would like to share:

The following are some essential design concept for this project:

Dapp type: Blockchain crowdfunding platform

Dapp name: InnoFund

Target user type:

1. Crowdfunding sponsor: small and micro startups.
2. Financial backer: Individuals or entities interested in supporting innovative projects, with options for equity or other forms of rewards.

Crowdfunding process: The platform employs a milestone-based crowdfunding model. After the crowdfunding initiator has raised enough funds to start the project, use smart contracts to automate the release of funds and confirmation of project milestones. Funds are automatically released to the project sponsor only when the project meets specific pre-defined goals. Once the crowdfunding sponsor fails to complete the current stage of progress, he will not be able to receive further crowdfunding support, and the remaining funds will be returned to the backers in proportion to the scale.

Type of crowdfunding: Based on equity or other incentives (publisher can define)

Additional features:

1. Decentralized Identity Verification: Utilizing digital tokens for identity authentication privacy while ensuring privacy and compliance with KYC regulations.
2. Commission and Rewards: The platform generates revenue by taking a commission from the crowdfunding process and offers incentives for successful funding. Reward programs for early adopters and top contributors to encourage participation and platform growth.
3. Community Features: Build community features like forums, live Q&A sessions, and updates to foster engagement between project creators and their backers.
4. Enhanced Transparency and Tracking Capabilities: Utilizing the immutability of the blockchain to provide investors with real-time updates on project development and financial transparency. Investors can see how their funds are being utilized in real time, increasing trust.
5. reward mechanism: The platform is responsible for issuing a fixed number of platform tokens and allows trading. Open token purchase platform, users can use cash to buy tokens of this platform. Participants in the crowdfunding program can choose between cash dividends and token dividends, of which token dividends will be paid according to the real-time value of the current tokens. With the token burning mechanism, the commissions paid by the crowdfunding party will be paid to our platform in the form of tokens, which will enable the regular reduction of tokens, thus controlling the rise and fall of tokens. This can not only increase the playability of users, but also realize the platform's multi-faceted profits.

Significance: It provides a reliable crowdfunding platform for small and micro startups, and users don't have to worry about too much of the platform.

Risk:

Compliance plays a crucial role in the operation of blockchain crowdfunding websites, especially in areas such as anti-money laundering (AML) and Know Your Customer (KYC). The measures require platforms to verify users' identities before accepting funds to prevent scams and illegal money flows. In addition to AML and KYC, crowdfunding platforms must also comply with local laws and regulations regarding data protection and securities trading, ensuring that their operations not only protect the privacy of users, but also comply with local legal requirements. The challenge with compliance is that it requires platforms to invest significant resources to establish and maintain complex internal control systems, including but not limited to customer authentication, transaction monitoring, and data security.

Crowdfunding fraud is a major risk facing the blockchain crowdfunding space, and it involves the act of raising funds through fake projects. This type of fraud may include creating projects that do not exist, or making exaggerated claims about a project's

potential to attract investors. To fend off this risk, crowdfunding platforms need to take a number of precautions, including conducting thorough reviews of projects, ensuring transparency from project leaders, and providing investors with regular updates on the progress of projects. In addition, educating investors to recognize potential fraud is also key to preventing fraud.

The security of third-party services is critical for blockchain crowdfunding sites, as these services often provide critical operational support such as wallet services, payment processing, and smart contract development and auditing. Relying on insecure third-party services can result in stolen funds or data breaches, which can damage the trust of users and the reputation of the platform. Therefore, it is necessary to choose a reputable third-party service provider that has undergone rigorous security reviews. In addition, regular security assessments of these third-party services, as well as ensuring that strict security requirements are included in the contract, are also indispensable measures to protect the security of the platform and users.