

## **Progress Report 2 DP-37**

**Project Title:** Decentralized application to lock NFTs.

### **Names, Student IDs, Emails:**

Ezra Gomolin - 260926917 - [ezra.gomolin@mail.mcgill.ca](mailto:ezra.gomolin@mail.mcgill.ca)

Ege Karadibak - 260830803 - [ege.karadibak@mail.mcgill.ca](mailto:ege.karadibak@mail.mcgill.ca)

Michael Buchar - 260831528 - [michael.buchar@mail.mcgill.ca](mailto:michael.buchar@mail.mcgill.ca)

Dominic Chan - 260904794 - [dominic.chan2@mail.mcgill.ca](mailto:dominic.chan2@mail.mcgill.ca)

### **Project Advisor:**

Dr. Majid Babaei, McGill - Faculty of Engineering ([majid.babaei@mcgill.ca](mailto:majid.babaei@mcgill.ca))

### **Group Meetings/Meetings with Advisor:**

#### Meeting 3 (Students): October 19th:

- Created an empty application integrated with one of the APIs we are using.
- Set up our GitHub repository.
- Team discussion about the technologies and platforms (React framework, Alchemy API, Etherscan API, Opensea, Metamask - e.g. test networks and what network we will be using).

#### Meeting 4 (Supervisor + Students) October 21st:

- Updated our supervisor on our progress, tasks and responsibilities.
- Demonstrated to the supervisor a basic functioning React application with simple buttons and webpages with the Alchemy API integrated to attain the NFT data.
- Explained to our supervisor about the general framework and addressed his concerns and questions.
- Discussed and received recommendations from our supervisor about our next steps and future plans.

#### Meeting 5 (Students) October 26th:

- Created GitHub issues to keep track of the progress.
- Discussed NFTs and smart contracts to understand it in more depth.
- Discussed future plans and tasks.

## **Recent Progress:**

Some recent progress we made was setting up an empty React web application that interacts with one of the APIs we will be using (Alchemy API). We set up our GitHub repository and have decided to use GitHub issues to track tasks of all the individual members. After our meeting with our supervisor, we understood that we all needed to discuss what our application should look like and focus on getting on the same page with NFT technologies, how owners of NFTs are tracked on the blockchain and how they are transferred between different individuals. We scribbled down unofficial UI mockups of how we think our application should look. We also created a simple diagram for our internal team and supervisor to understand how NFTs work. We have split up several tasks to be completed for the next progress report. These tasks include UI mockup designs, UI technical advancements for our application and architecture design of our application.

## **Future Plans:**

We have had a number of fruitful meetings and decided to use GitHub issues to track our progress for the next meetings. Ezra will work on looking into the architecture of how our software will work. In other words, this includes deeper research into smart contracts and the locking mechanism we are proposing. Michael will work on setting up the ETH address, so that it is not hardcoded anymore but rather received from the user input to display various NFTs. Ege will work on the UI mockups for the application we are proposing. These will be done in Figma as wireframes and will include several different components: home page, page for viewing the NFTs and locking mechanism. Dominic will work on displaying the NFTs (once the "Display" button is pressed) as a gallery so that all images can be viewed. This will include CSS development as well. Furthermore, all of us are encouraged to learn more about NFTs and the tools we are using.

## **Professionalism:**

As the popularity of NFTs increases, more scams and phishing attacks occur on a daily basis leading to a large loss of valuable assets. Just by clicking a link accidentally or signing off on a wrong transaction from your ethereum wallet individuals can lose all of their NFT assets. So our application has the goal of preventing some of these malicious attacks from happening by adding more security layers to your assets. By allowing users to lock their NFTs the users will be safe from many possible scams that occur. As NFTs will be transferred from individual wallets to our applications smart contract it is our responsibility to make sure that these assets can only be returned to the users that locked them up. To do so we will have

to focus on security for the protection of the users assets when it comes to writing our smart contract. It is important we do so in a professional way documenting exactly how our smart contract will work with complete transparency for any potential users.

We will be completing this entire project whilst maintaining the highest professional standards by ensuring that every step of our development process is well documented and explained, so that the purpose and objectives of each part of the application will be easily understood by the public. This is so that the application will be released with utmost transparency, giving faith and assurance to the public.