

## **Work Package**

### **What is the work that needs to be performed?**

In the Spring semester, a lot of development needs to get done from both the frontend and backend to create a cross-platform mobile app. The app should be able to support both Android and IOS devices without compromising the functionalities and scalability of it. During the development, documentation should be written along the way so that that my team members and sponsors can understand how the code and app work.

### **What resources are needed to perform the work?**

Frontend:

- React Native
- HTML, CSS, JavaScript
- UI libraries
- Expo Client (testing)

Backend (firebase services)

- Firestore (database)
- Cloud functions (APIs)
- Auth (Authentication)
- Storage (Store static files: images, links)
- Hosting

Others

- Github
- Linux
- Git

### **What are the steps (flow) of the work?**

1. Create the UIs of the mobile app
2. Initialize the firebase app
3. Integrate React Native (frontend) and Firebase (backend)
4. Test that they both can communicate with each other
5. Set up authentication using Firebase to enable a login system
6. Do unit testing to ensure that the app runs smoothly without any bug
7. Deploy the app

### **How is performance measured for the effort?**

- Number of commits and their frequency

- How many tasks are completed on Trello, a project management tool
- How long a person is working on a particular task

**How is the work-product quality measured?**

- Get feedback from Tabor College students to determine the quality of the app.
- Check the rating and reviews on Google play store and app store
- Use Expo Client tool to detect the speed and usability of the app

**How many hours does it take to perform the work?**

The overall work should take about 250 hours to complete. I have a team of five, so each team member is expected to spend about 50 hours.