Project Scheduling

Our project will be developed using an iterative software development model. A single set of requirements will be arranged and documented prior to the start of development, and every development iteration will be based on these initial requirements. Iterations will progressively build on top of each other to eventually form the final product. Early iterations will focus on the application's essential features so that user feedback can be collected as soon as possible. Later iterations will add non-essential features defined by the requirements and address user feedback gained from previous iterations. Each iteration reflects a partition of the project's requirements.

A project timeline based on these ideas is given below. We estimate that the project will take six months to develop iteratively, assuming there are no major delays in iteration cycles.

Month 1: Gather Requirements. The first month of the project is dedicated to market research of existing applications in the project domain, requirements brainstorming and gathering with user research, and project cost estimations. A good amount of time is needed for this initial stage because it is the foundation for the rest of the development cycle. Requirements will be clearly documented and available through every future iteration. Requirements are only subject to change if user feedback in later iterations greatly conflicts with the assumptions and requirements produced from this stage.

After this first stage, application development begins. Every iteration of the application is allocated a one month period to review the previous iteration's successes, failures, and user feedback; review the goals for the iteration and what requirements will be met; develop the new iteration's features; test the new iteration's features internally (unit testing); and collect real user feedback for the new features and improvements. We recommend the following timeline for each iteration: one week for iteration review and a detailed design of the new features for the iteration, two weeks for development with simultaneous unit testing, and one week of user testing and feedback collection.

If the deadlines for each iteration become too tight and some goals are missed, the current iteration will not be delayed and will still end after one month. In iteration review, any missing features will be given priority for the next iteration. Project managers and developers should decide if all goals for the current iteration can be met within the one month period due to the additional work pulled over from the previous iteration. If not, the lower priority features should be put on hold for the next iteration. An iteration may need to be added to the end of the development cycle, delaying the project.

Month 2: Back-end and UI Design. The first iteration primarily focuses on the back-end logic and database server for the application. A server should be deployed with endpoints for saving and retrieving data, registering and authenticating users, and connecting to the database server. Internal data representation must also be carefully modeled for use in the database, server, and application model. While the application is being crafted from the back-end, the overall user interface design for the mobile application should be designed in preparation for front-end development.

Month 3: Front-end Iteration 1. The first front-end iteration focuses on the most essential features in the application. At the end of this iteration, the application should be able to track screen

time for individual apps; create, enforce, and override time limits for applications, and present data to the user as a sorted list.

Month 4: Front-end Iteration 2. The second front-end iteration will add accountability partners to the application flow. Users should be able to invite and remove accountability partners, allowing partners to view their data and override their time limits. Furthermore, exempting applications from data collection as well as creating time limits and viewing data by application category or custom application group should be implemented.

Month 5: Front-end Iteration 3. The third front-end iteration will focus on data presentation to users and accountability partners in the form of graphs, charts, and timelines. Development should also begin on data export modules for .csv and .json files. If possible, user feedback will also be addressed here.

Month 6: Front-end Iteration 4. The fourth and final front-end iteration will produce data export modules for .xls, .pdf, and .xml files. However, development on these modules may be delayed if work from previous iterations overflows into this one. This iteration should primarily focus on user feedback from previous iterations, perfecting the user experience.

After the sixth month, the application should be ready for publication and purchase. At this point, the application enters a constant maintenance cycle where developers receive user feedback, analyze their merit alongside the initial project requirements, and make fixes or changes to the application accordingly.