SWE6733 – Emerging Software Engineering Processes

Sprint #1 (Part 2)

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**Sprint #1 (Part 2) – Final Report**

**Github: https://github.com/Decker-Matthew-R/AccessAdventureApp**

This was a difficult sprint and we will address the reasons why in our final write up and in the final sprint review which will be available on youtube. After initial hiccups in the development process, we oriented the team on a “crawl, walk, run” method of development. As we were learning the language, we decided to approach the first sprint with a “crawl” methodology, in that we did not want to bite off more than we could chew and produce a broken application. Instead, we decided to produce a manageable chunk of work that would allow us to learn the basics behind React Native and Firebase. We intend to get more aggressive with design and features as we continue through the sprint iterations. We had a culmination of other assignments due and varying schedules that made meeting up and executing our sprint tasks difficult. This was compounded by the fact that we were using a new development environment and learning a new language (Native React). This made progress slow, and we encountered a steep learning curve. We ultimately decided to throttle back the initial rollout of our app and created a barebones application with screens that allowed us to navigate and test our initial application. We chose to make this sprint the foundation of our application and ensure that the fundamentals were in place before adding complex functionality. We felt this compartmentalized approach to development would limit errors in unit testing as the application was developed further and more complex features added. Our sprint forecast is located below, and while it does not represent a complete, polished application, it does lay the groundwork for future additions and refinement in our development processes.

1. **Sprint Forecast: 8 Story Points Complete**
   1. Login with username and password (2 Story Points)
   2. User Registration Page (1 Story Point)
   3. Login to Access Profile (2 Story Points)
   4. Profile Set up (3 Story Points)
   5. Compatible with Android Devices (1 Story Point – Ongoing)
2. **Decomposition of Stories:** Our Stories were decomposed into tasks and each task is assigned to people. A summary of those tasks can be found below:

* Cameron: Login/Homescreen
* Matt: Register/Create Profile Screen
* Ifeanyi: Messenger/Chat Screen
* Devika: Matching screen

Graphical user interface, application, Teams

Description automatically generated

These assignments directly correlated to our goal to make a navigable application and lay the groundwork for future additions. Our stories were broken down into individual tasks that could be completed and would represent the completion of certain story points. We soon found that there were hidden tasks that would be required to be completed as well. Such as testing android compatibility as well as setting up a database (all of which were done successfully but will be continually updated with future iterations/sprints). These tasks are also decomposed on our on our Azure project page: <https://dev.azure.com/AccessAdventureApp/AccessAdventureApp%20Project/_workitems/edit/26>

1. **Kanban Board:** 
   1. This can be found on our Azure link: <https://dev.azure.com/AccessAdventureApp/AccessAdventureApp%20Project/_workitems/edit/26>
2. **Sprint Burndown Chart:**
   1. This can be found on our Azure link: <https://dev.azure.com/AccessAdventureApp/AccessAdventureApp%20Project/_workitems/edit/26>

A screenshot of a computer

Description automatically generated

1. **Daily Scrums:**
   1. We conducted several scrums during the first sprint. The scrums mostly became focused on finetuning the development environment and this slowed the process of actual development down. We have provided evidence of one of our scrums on youtube. The link is: <https://youtu.be/WFre3lz6Kbg>
2. **Mob Code Session:**
   1. We did a mob code session on the creation of a nav bar for our application. Due to schedule conflicts and work schedules, it was difficult to perform live mob sessions. Our mob session link can be found at: <https://youtu.be/nTjFDnEy6UA>
3. **Unit Testing:** 
   1. We used a test driven development methodology when creating our application, however we quickly ran into several problems when using tests in our development environment. It became such an issue, that it will be addressed in it’s own section of this write up below.
4. **Sprint Review:** Group 2 conducted a final sprint review, and it can be found at the following link: <https://youtu.be/Amzf4lxgJeI>
5. **Working Software:** All components of our software are currently functional and have been manually tested. The code works, however, the product is not ready for production. At this time, it simply represents a graphical user interface for navigating the app. It is essentially a live mockup of our intended GUI. This was part of our crawl, walk, run approach that we took to designing this application. Watching our sprints will highlight the user interface we created and showcase the application as it works right now.

**Issues with Testing**

All test cases can be found in the ReactNativeJest folder of our code on github. Test cases were created and ran against the code, however all tests consistently failed. After manually testing the code, we found that this was a problem with test case creation and the dependencies required to run it in our IDEs as we were getting errors related to the file paths of modules. This likely means the file tree of our test case suite is not properly identified by our testing software. So, while we cannot provide proof that our test cases passed (as we could not get them to run), all test cases were visually inspected in the GUI and confirmed to be non-issues. We are currently reworking how we conduct tests and anticipate this issue will be solved in the future, most likely by identifying what dependencies are causing our tests to be unreadable. We will provide ongoing updates to this issue as we work through the development process.

**Sprint 1 in Review**

This sprint proved very difficult. We had to alter our approach to a “craw, walk, run” style in order to slow down and understand the basics of the language we were using. By taking a step back and reapproaching the issues at hand, we were better able to understand the tech stack we were using and intend to “walk” during the next phase, i.e. increase the pace of our development. We also forgot to record most of our sprint sessions, this made it so we had to go back and recrate a sprint session.