University Social Media Android App

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# Revision Table

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| --- | --- | --- | --- |
| **Date** | **Description** | **Authors** | **Comments** |
| 1-21-2020 | Version 1.0 | Adeel Asghar  Hala Ali  Tyler Gross  Palak Patel | First draft sent to GTA. |
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## 1.1 Project Overview

While there are many resources for university students, it is difficult for them to find and keep track of them. The University Social Media Android App project aims to create a safe space exclusively for university students to collaborate with one another for help with studying for classes, finding cheap textbooks, and working together on team projects. The features that will help meet these objectives include textbook resales, shared flash cards, chat features, and team collaboration. There are many sites that university students can use like Quizlet for shared flash cards and communication platforms for chat features (Wayne State University allows students to post on Academica), but this particular app will be advantageous and convenient because it consolidates all those features onto one platform which is the goal of this project.

## 1.2 Project Purpose/Objectives/Scope

The purpose of this project is to develop an Android mobile app for university students to connect with one another and receive help through the app whether it’s giving a textbook at a discounted price or learning together by using shared flash cards before a major exam. The development team will be responsible for developing this app from its foundation which includes designing an easy to use UI as well as focusing on the back-end components.

//TODO: Objectives and Scope, they will be made clear at the first client meeting

## 1.3 Team Organization

**Team Lead: Adeel Asghar**The team lead is required to facilitate weekly meetings between the client and the rest of the team as well as lead additional team meetings for teamwork collaboration. The team lead is also required to delegate tasks to the team members and hold them accountable to the deadlines for the project. Another responsibility of the lead is to enforce problem resolution policies and oversees scheduling meetings with the GTA and possibly with the instructor based on the severity of the offenses committed by team member.

**Documentation and Presentations Lead: Hala Ali**The documentation and presentations lead proofreads the content on these deliverables and ensures that there are no simple mistakes such as typos or other syntactical errors. Also, this lead reads over the content to determine that the content is thorough enough in explaining our developmental process for documentation. The lead reviews content for presentations to make sure that there is consistency in the form of a parallel structured format and a clear, concise message of the progress that is made for the mobile app at each milestone.

**Back-end/Database Lead: Adeel Asghar and Tyler Gross**The back-end/database lead is responsible for developing the backend of the product using Kotlin and connecting to Amazon Web Services whether this includes user authentication or database storage.

**Front-end/UI Lead: Palak Patel and Hala Ali**The front-end/UI lead is responsible for designing a convenient, easy to use UI that university students will be able to use effectively. The interface should provide the user with a happy UX by having navigability and consistent design.

**Front-end/UI assistant: Tyler Gross**  
Thefrontend/UI assistant is responsible for assisting the UI lead whenever it is needed. This includes assisting the lead on their current task including, error testing, assisting with problem solving, and gaining a strong knowledge of how the UI works in regards to how it will be connected to the back-end. The assistant will be a coordinator between the backend and frontend teams who will gain a high level understanding of the full stack to ensure that both parts can be combined correctly.

## 1.4 Problem Resolution Policies

If the team member misses a weekly meeting with the client, the issue will be dealt internally with the remaining team members. The team members will communicate with the tech lead and the tech lead will be responsible for confronting the team member about missing the meeting. Documentation of team members missing a meeting will all be recorded through meeting minutes with the client. A second repeat offense will result in the team members and the tech lead reaching out to the GTA to discuss what action should be taken with the team member moving forward.

If the team member misses three or more meetings without any justifiable cause, the remaining team members will schedule a meeting with the GTA and the instructor, presenting a case of the team member being absent and showing unprofessional conduct. The punishment for such an offense shall be determined by the instructor at this point. If the team member did have an emergency situation that he/she could not attend a meeting with the client, that team member must show proof of the situation that led to them missing the meeting.

In the case that a team member feels that they may miss a deadline, they must let the rest of the group members know at least 48 hours before the deadline about whatever issues they are having, so those issues can be resolved as soon as possible. If they fail to notify the team, they will be trusted with less responsibility going forward. The first offense will be resolved internally by a meeting with the remaining team members and the tech lead. The tech lead shall confront the team member about their failure to meet the deadline and have the team member submit a detailed plan of work specifically to the tech lead and the GTA in the following weeks to ensure that the team member is motivated to meet all future deadlines.

A second offense will result in the tech lead providing documentation of the team member’s plan of work he/she has submitted in a meeting with the GTA and how they have failed again to meet the deadline, despite the helpful intervention method from the tech lead to get that person on track. They will discuss together what needs to be done about this team member. If a team member misses three or more deadlines, all remaining team members will meet with the GTA and the instructor to present all documentation on that team member in the form of what they completed and what they failed to do. The punishment for such an offense shall be determined by the instructor at this point.

## 1.5 Project Plan

First Client Meeting: 1/22/2020 at 5:45pm in the UGL at Wayne State University

## 1.6 Configuration Management Plan

All Version control will be handled in a private GitHub repository. Project task assignments will be provided by the team.

As of now, the project will be divided up accordingly and each member will work on their part of the project. Each team member will work on their assigned feature as well as work in tandem with anyone whose assignment will depend on their part. Front-end and back-end team members will confirm connection points on features in addition to data types and methods used in these features. Before testing combined features, the members will have a meeting to show the entirety of the code and ensure that the design works together in the form of a code review.

Each feature of the project will have its own branch on the GitHub page these branches will be as a reference point for the other team members to see how things are progressing aside from the methods and datatypes used.

There will be multiple designated branches for testing that will contain a full working version of what is currently completed. There will also be a master testing branch that will be used to combine all features. Group members must let all other members know and get approval of team lead when they are going to be pushing their code to the master testing branch. Before pushing code to the master testing branch, the feature must be confirmed to be in working order with no fatal or application breaking bugs. Once a group member has pushed their code to the master test branch, they will ensure that their code works with the entirety of the completed code, with no system breaking bugs. The designer of the newest addition to the test branch will then work exclusively on getting the code to a working order before doing anything else.

Bugs in the code that do not pose a threat to the entire system do not need to be handled before pushing to the master test branch. However, they must be well documented with the features, methods, and order in which methods are called so they can be addressed at a later date.

We will use Jenkins as our automation server to help us continuously merge our code into GitHub as we go through the iterative incremental process.

## 1.7 Technologies

All of the technologies below have been requested by the client:

**Backend:**

* AWS Server: AWS provides a variety of backend tools for mobile application developers, including information storage and user authentication services

**Frontend:**

* XML: XML is a straightforward easy to use language for frontend development with Kotlin. Android studio provides a drag and drop interface that generate XML code as the Frontend is designed

**Testing:**

* MockK: MockK was chosen because it is mocking framework built specifically for Kotlin.
* Jenkins: Jenkins is an automation server. We will be using it to implement continuous integration and continuous delivery of our code base. Jenkins was chosen because it is open source and widely used. This would allow the team to get support easily if needed.