Mood Tracker

Major Project Outline

Computer Science G40F
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Release

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Project Description

Mood Tracker is a native Android application whose purpose is to enable people to track their everyday moods and activities. Internet connection will be required as there is an online chat and some information is shared. There are two types of users, regular users and supervisors. Regular users can record their daily activities and review how they felt at the end of each day. The supervisors can access other users records and attach the note to each day in their diary. To gain permission to access the user dairy the supervisor has to send a request which has to be accepted by that specific user. The user can hide entry from his supervisor by selecting the appropriate option while adding one. Every user has its profile and can send and receive messages from other users. To develop this application I am going to use Android Studio. The Google Firebase will be used as a database and also will handle the authentication process. This application will be written with Kotlin. I have still not decided whether I will use the XML or Jetpack Compose approach to create the UI layouts. I will test my application with the unit tests using the JUnit framework and UI tests using Espresso. The source code will be stored on GitHub.

Proposed Tasks

1. Studying the Google Firebase platform and how it can help me develop my application [1]

2. Investigating the best approach for creating the UI layouts in Android (XML vs Jetpack Compose) [2]

3. Learning how to maintain security and privacy in Android Apps [2]

4. Learning more about unit and UI tests [2]

5. Setting up the Version Control repository and local build [6]

6. Defining the colour theme for my application [3]

7. Creating the UI prototype using the proto.io website

8. Creating the ERD and UML diagrams using the lucidchart.com platform [5]

9. Creating the application and working on a report

Project Deliverables

App - Fully working and secure mobile application with a clear and appealing user interface.

Prototype - Interactive UI prototype which shows the design of my application.

Diagrams - ERD, UML and Use Case diagrams.

Tests - Unit and UI tests that prove the application execution does not lead to any errors.

Project Report - Detailed project report that describes the milestones, challenges and implementation related to the delivered application.

Bibliography

[1] https://firebase.google.com/

[2] https://developer.android.com/

[3] https://color.adobe.com/create/color-wheel

[4] https://proto.io/

[5] https://www.lucidchart.com/

[6] https://github.com/