Software Requirements and Design Document

For

Group <23>

Version 1.0

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1. Overview

Because of the current surge of importance placed on Mental Health awareness, we chose to create an app that would help its users track the state of their mental health and hopefully improve it. Within our app, the user will be able to create an account and customize it to their liking. Afterwards they will have the ability to take a daily questionnaire - the score being logged daily. Charts will generate over time to help the user get a visual representation of the score they receive daily and an overall "mental health state" will be determined based on past performance. Here, they will also have access to external resources if they feel they need to use them. If the user is feeling down, or bored, there is an in-app feature to allow the user to scroll through numerous motivational photos and quotes. A chat feature also allows the users to anonymously chat with one another if they are looking for someone to talk to.

We want to give the user a safe and fun way to keep track of their mental health.

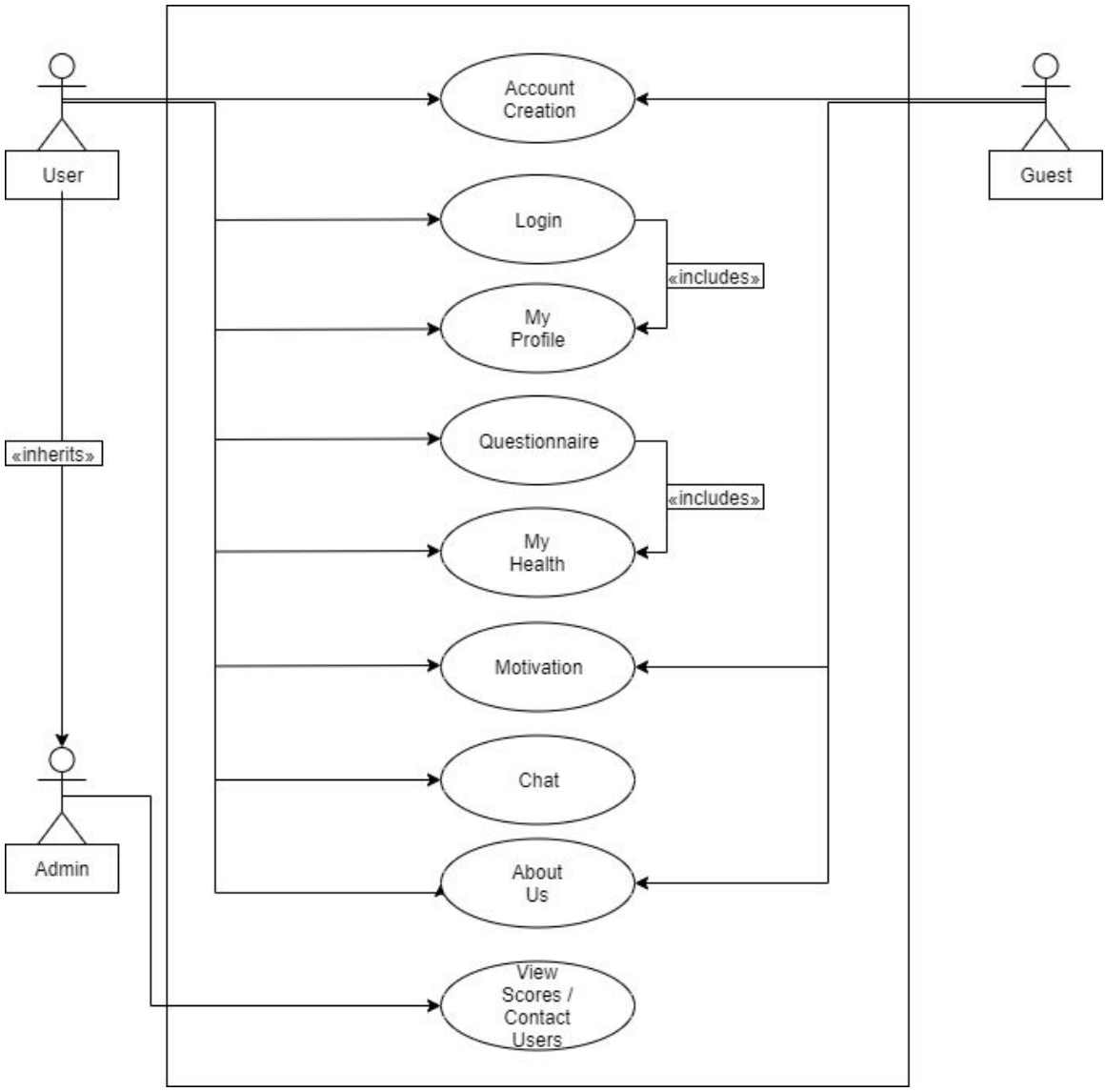
2. Functional Requirements

1. *User Login - High Priority - Allows users to create accounts and log in to the app.*
2. *Daily Questionnaire - High Priority - This will give the users a series of questions that will give them a score that will help the app access there needs*
3. *Analysis of User Mental State - High Priority - This will decide how app chooses to help the user (certain pictures or quotes to be displayed)*
4. *Chat system - High Priority - allows users to anonymously chat with other users*
5. *My Health - High Priority - displays graphs and statistics about the user.*
6. *About Us - Medium Priority - displays the app's mission statement and information about the app.*

3. Non-functional Requirements

1. *Security of the database as currently it is public. We would like to implement a high level of security. Maybe DDoS protection, if that is not already a part of Firebase.*
2. *Reliability - We want to keep app crashing as minimal as possible and assure accurate information is presented*
3. *Cost - The app will be free of charge to all users.*
4. *Open source - This app will be open source, the code is public on Github.*

4. Use Case Diagram



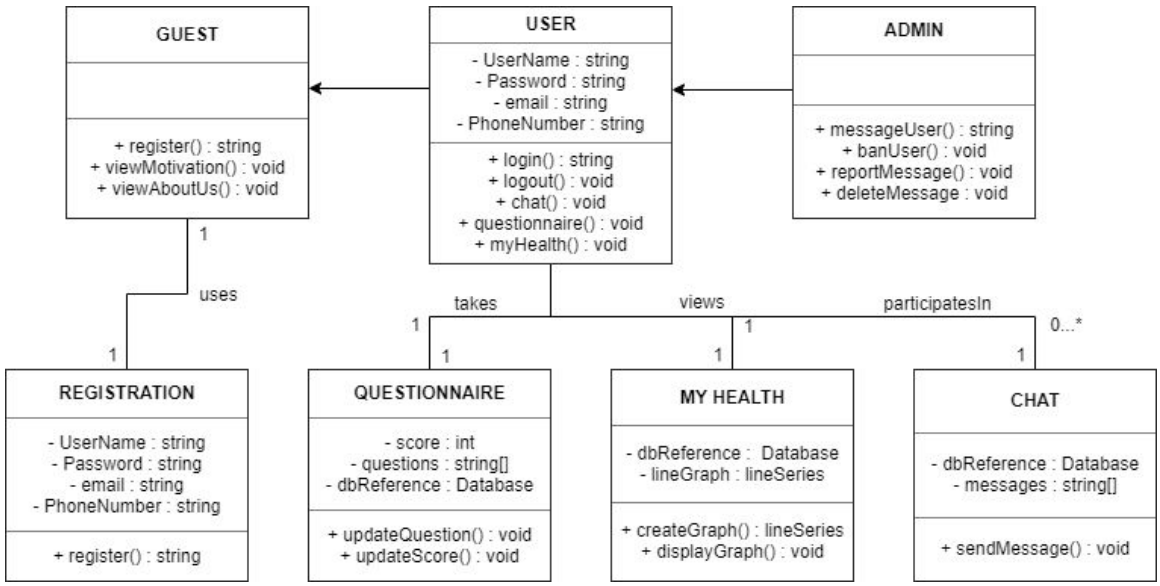
Textual Use Case Description
1.Name: Mood Booster
2.Participating actors: User, Guest, Admin
3. Entry condition:
User: Start the app and login in with username and password.
Guest: Download and then start the app.
Admin: Start the app and login with username and password.
4.Exit Condition:
User: Log off the app and close the software.
Guest: Close the software.
Admin: Log off the app and close the software.
5.Flow of events:

User:
1.Log into the app.
2. Take the daily questionnaire.
3. Check my Health to see trends in scores to see what you should do next.
4. Boost mood by looking at pictures and motivational quotes.
5. Participate in the chat room and try to lift up the fellow Mood Boost users.
6. Learn more about the company by reading the About Us page.
7. Log off and close the software.
Guest:
1. *Download and start Mood Boost.*
2. *Observe features presented in the UI.*
3. *Return Register/Login page and register for the app*

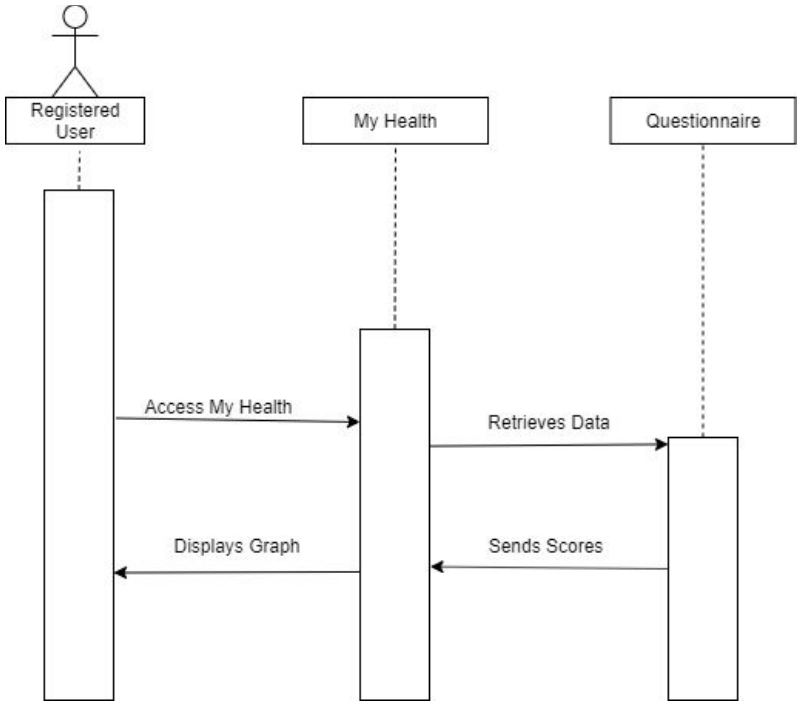
Admin:
1.Log into the app.
2. Observe and monitor the chat room and determine if any message is hurtful/obscene.
3. Delete messages found in step 2.
4. Log off the app.
6. Special Requirements:
User: Have a registered account.
Guest: Don't have a registered account.
Admin: Have a registered account and have admin credentials deemed by Mood Boost board members.

8. Class Diagram and/or Sequence Diagrams

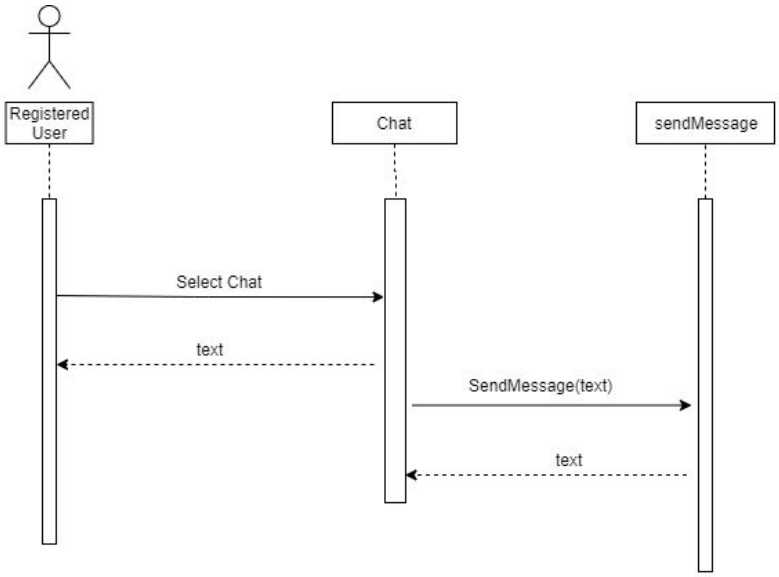
Class Diagram

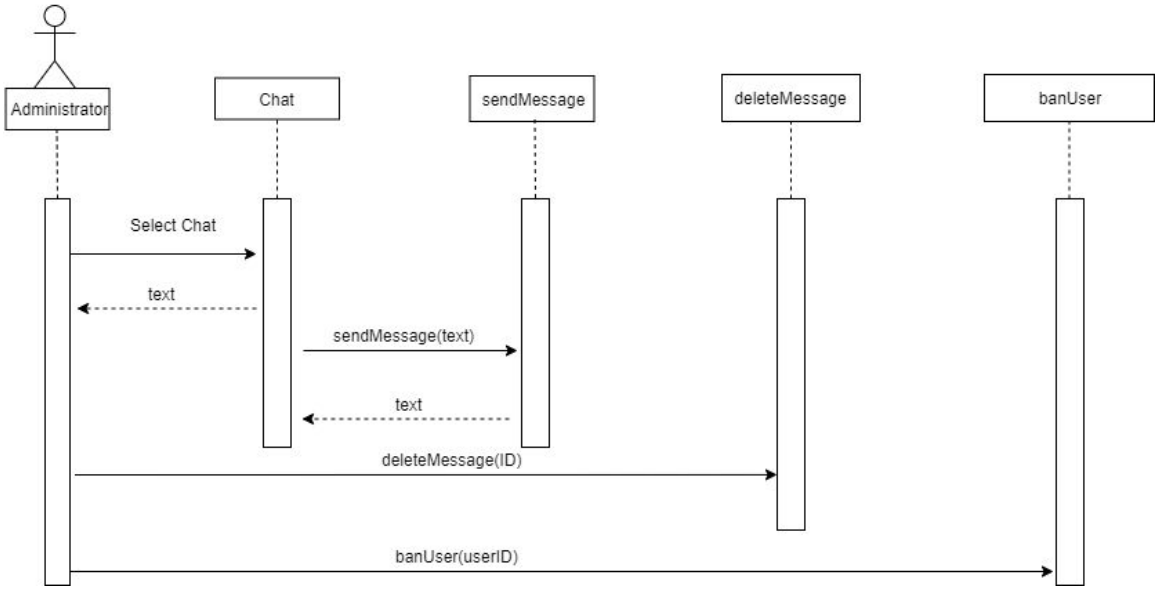


My Heath Sequence Diagram

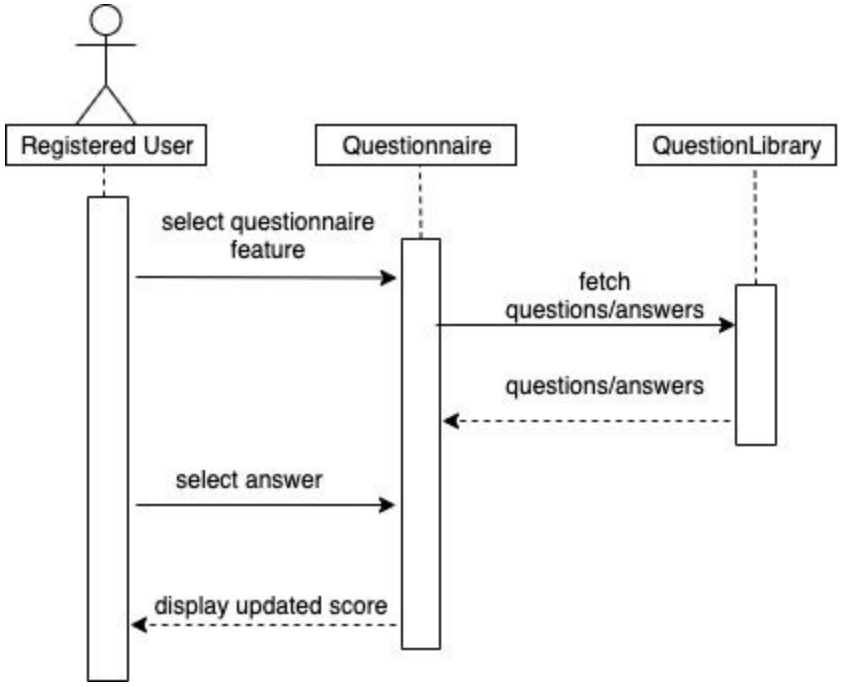


Chat sequence Diagram





Sequence Diagram 1: Questionnaire (for Registered Users)



9. Operating Environment

We programmed our application within the Android Studio IDE/Emulator. We also linked this code with a database created within Firebase.

10. Assumptions and Dependencies

We assume that the user has a valid email address, has an internet connection and a device that can run an android app (computer or mobile device).

For this project we depended on Java, Android Studio, Firebase and XML.