

CSIS 3175-002

Introduction to Mobile Development

Class Project (Health Management Android App)

Total Weightage: 25%

Project Overview:

This course includes a required course project. The goal of this project is to develop an android app for Health Management System. Health Management App is designed to keep track of calorie consumption as well as facilitate the patient to interact with the doctor available nearby via the mobile app.

In Health Management App, each patient will be required to register on the system at registration time, or the admin might register a patient. At the registration time, patient health condition information including diseases, allergies and medication should be asked. If a patient is registered by the admin, the patient should update the password, first time when he/she logged in. The user will be provided with a user name/email ID (when a new user will be created), which will be used to maintain the record of each unique user. The app will keep track of the daily calorie consumption as well as the history of the patient. The app should start with a welcome screen. The app should ask a user to log-in with a user name and password. If a user is new, he/she should first register. Once the user is logged in, the app should display two options FOOD TRACKER and FIND A DOCTOR.

If the user selects the Food Tracker option, a new activity should open which will ask the user to make entries of the food items the user eats that particular day and count the calories in them. If the calories are more or very less than the recommended calories, display an alert. This feature is helpful for people trying to gain or lose weight. As an added feature, the app can also provide healthy recipes.

If the user selects the Find A Doctor option the app should ask the user to enter his/her address or postal code. Clicking finds the doctor should open a list of doctors nearby. Selecting one particular doctor should display doctors' information including doctor's office details. A menu of the items (including book an appointment, check doctor's availability, get online help and etc.) should be displayed. Book an appointment should open book an appointment activity and show the available dates and times to choose. Get online help should open get online help activity that allows a registered patient to leave a message/complaint to the doctor explaining his/her current situation. Once the request is finalized, the user can log out. If a user select get online help and if the user/patient has no MSP coverage, the total amount due should be displayed and proceed to the payment procedure.

A user should also be able to view or edit his/her account information, can view his/her request history. Add log-out option too. Health management App will generate a report to show the history of a user including online requests and calories consumption.

The app will be developed gradually during the term with more features added in. This project has two parts: part 1 (proposal) is to review existing apps, propose your app and write a report (5 – 10 pages) including use case diagrams and an outline of your app with screen layouts (screen layouts could be android generated or any graphic s/w generated). Part II is to submit a complete working app along with a report. The project is to be done on a group basis, with 3 or 4 students in each group. The group details are on Blackboard. The project must cover major aspects (covered in class) of Android app development, Java and XML. It is also encouraged you to explore more features that are not even covered in the class.

Actors: Admin, Doctor, Patient, Cashier

Responsibilities of each actor:

Admin: Creating ID and password for patient/doctors/cashier, update patient details, update doctor detail and app maintenance

Doctor: Log in, view complaints, post solution (reply to patient)

Patient: Register, login, track the calories, find a doctor, post complaint, view details, view profile, edit profile and make payments.

Cashier: Log in, check if any payment is due, remind the patient if a payment is due and take care of payments

Developing the project:

The project has two due dates:

1. Project Proposal:

Review existing apps, plan your app and submit a documentation report of 5 – 10 pages (5%)

Report submission (pdf copy) due: Feb 3rd, 2021 (9 am pacific time). No late submission

- A. Review the existing apps
- B. Give an outline of your proposed app, and build the layout of the screens.
- C. Write a report including:
 - Give a title and a brief description of your project.
 - Features of your app including the features discussed above and additional features if any.

- What are the GENERAL tasks, project team roles, and who is doing which tasks.
- Usecase diagrams.
- Give an outline of the layout of your screen by specifying the main items/actions to be included on each screen. Note that you are allowed to change the structure and the content later if needed.
- A normalized database model including all tables.

2. Project final submission and Presentation (20%)

Due date: Mar 31st, 2021 9 am pacific time. No late submission.

Project Presentations would be on March 31st and April 7th, 2021.

Submit the final project along with a well-presented technical report discussing your project.

- Since you are working in a group, each group MUST indicate clearly the work that each group member have done and which part of the app each member is responsible for.
- You are required to write a summary section at the end of the project report to highlight
 - Number of screens in your app
 - the main features of your app
 - the names of Java class and activities of your app
 - any features/tools/third party S/W that are not covered in class but have applied in the project along with the reference
 - Database details including the database name, table names and design.

Submission:

Only one group member (the group leader) will submit the project on BB;

- Create a folder named GroupNumCSIS3175-section (e.g. G1-CSIS3175-002) and save your android studio project as well as soft copy of the project report in that folder and upload on BB.

Project name and activities name should be descriptive but names should not be too long.

NOTE:

- **The final project should be done using SQLite database only.**
- **This is YOUR project and you are NOT ALLOWED to copy from other sources.**

Each project group will make an oral presentation about their project during class time. This presentation will explain and summarize the project. Questions will be asked by the other members of the class. The main idea is to present the highlights of the work done. A good presentation will summarize the main points of the work and bring up discussion issues. This presentation will be graded. There will be a number of presentations per class so students should plan on a 10-15 minutes presentation. This time includes questions and discussions.