Ucourse

Design document

Table of Contents

CRC cards

1)

Class Name: User

Parent Class: None

Subclasses: None

Responsibilities:

- Collect User information from the registration form
- Use the Manager to register the user
- Collect user Id and password for verification
- Use the Manager to take the user to the home screen if login is successful

Collaborators:

- AccountManager

2) **Class Name**: File

Parent Class: None

Subclasses: None

Responsibilities:

- Use the FileManager to send a request to download the file as per user request
- Collect file information from the admin
- Send the file information via FileManager to be stored in the database

Collaborators:

- FileManager

3) **Class Name**: CourseInformation

Parent Class: None

Subclasses: None

Responsibilities:

- Collect course student course average, course code and comment of wheather other students should take the course
- Send a request via CourseManager to the server to add the course to the database

Collaborators:

- CourseManager

4) **Class Name**: AccountManager

Parent Class: None

Subclasses: None

Responsibilities:

- Send request to add user to the database
- Send request to get the specific user information from the database

Collaborators:

- User

5) **Class Name**: FileManager

Parent Class: None

Subclasses: None

Responsibilities:

- Send request to add file to the database
- Send request to download the specific file from the database

Collaborators:

- File

6) **Class Name**: CourseManager

Parent Class: None

Subclasses: None

Responsibilities:

- Send request to add course to the database

Collaborators:

- CourseInformation
- ProfessorRating

7) **Class Name**: ProfessorRating

Parent Class: None

Subclasses: None

Responsibilities:

- Collect course professor rating, professor name from students
- Send a request via CourseManager to the server to add the professor rating to the database

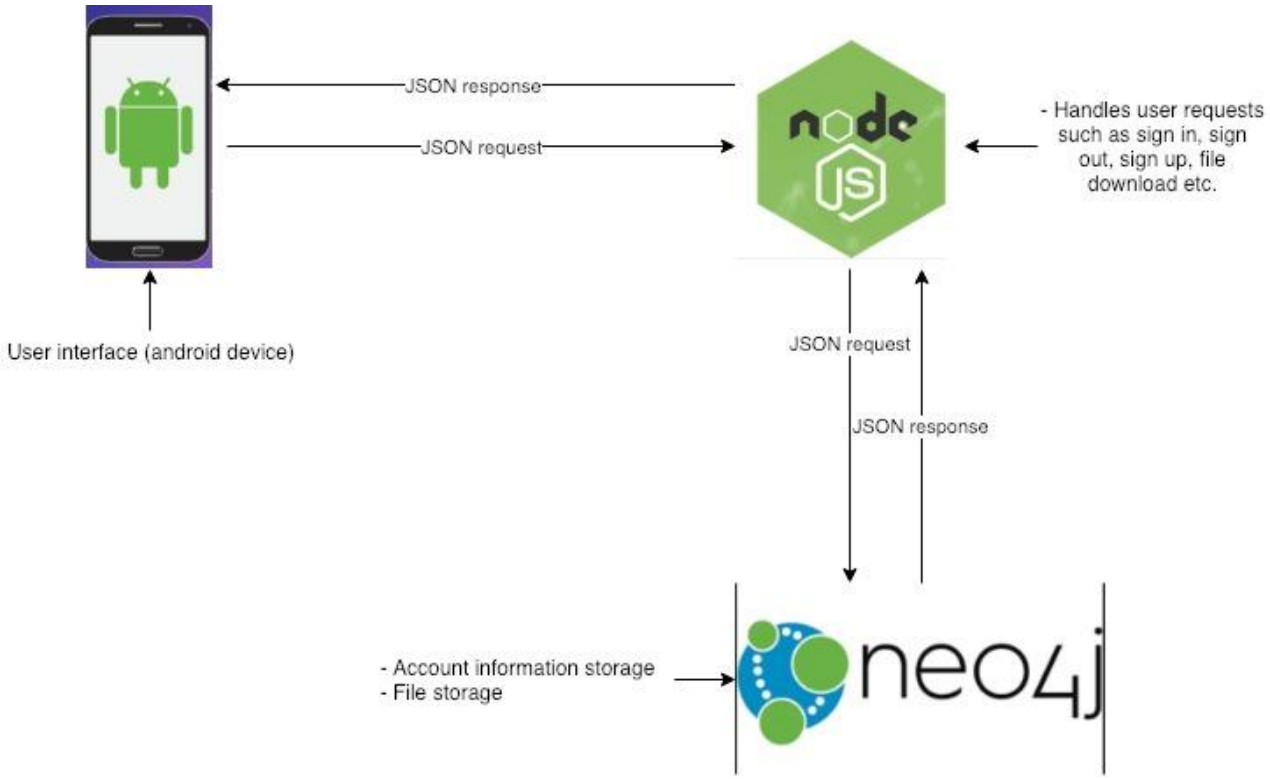
Collaborators:

- CourseManager

System architecture

For the UCourse app, we will be using the following:

- Server- NodeJS
- Database- SQLite
- Front-end- Java, JavaScript, XML



System Decomposition:

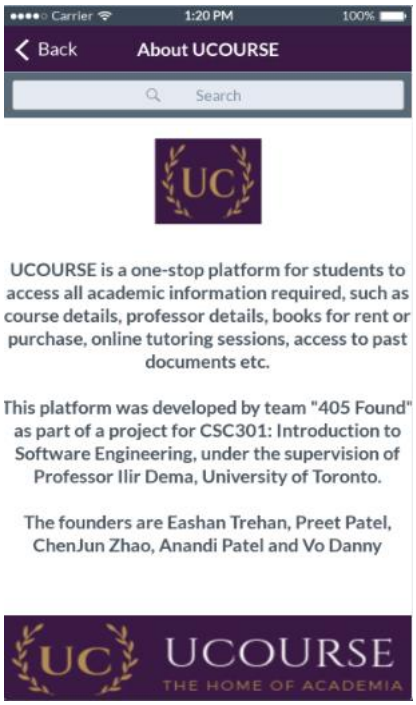
UCourse android app is made up of three major components: client, server, and database. The following is the database schema (will be updated as needed):

User (EmailID, firstName, lastName, password)	Primary Key: EmailID
File (fileID, filename, year, forCourse)	Primary Key: fileID
Course (dept, number)	Primary Key: (dept, number)

This app will follow the MVC design pattern. For the initial release, the clients will be android users. The client will be able to register, login, logout, download files etc. by interacting with the interface.
Before releasing the software, we will examine as many errors as possible. In technology, server errors are bound to happen and to deal with this we will simply notify the user to kill the app and try restarting as the primary solution and to try connecting later if the problem still persists. Meanwhile, the user can still access the downloaded files that will be stored in the downloads section of the app. If there is a login error, the user will be prompted with a message that clearly states the reason for the unsuccessful login (username not found, password did not match etc.). The user will always have the option to communicate with the service providers to report bugs which will be fixed and an updated version of the software will be released.

Sample Application Design

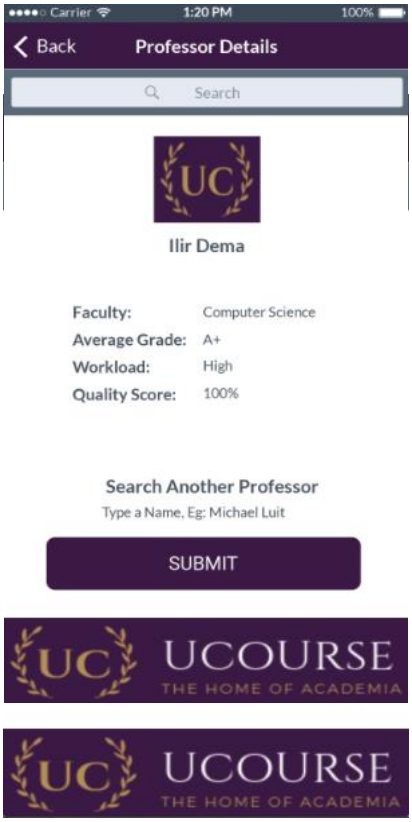
About



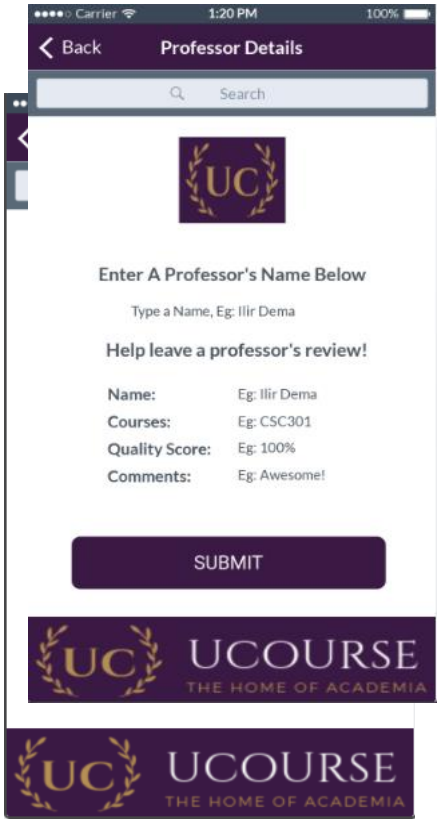
Professor Details

Course Information

Professor Search

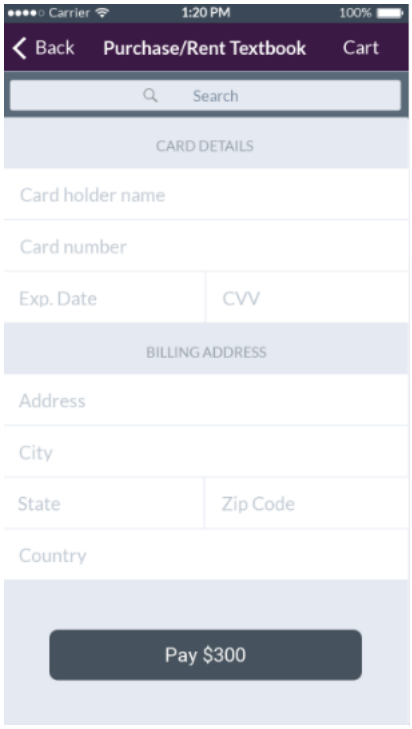


Course Search



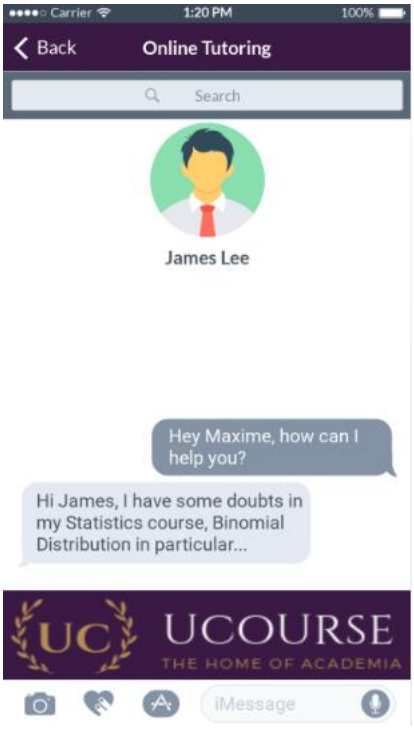
Menu

Payment



Sign in Page

Online Tutoring



Application Logo