Ucourse
Design document

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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 whether 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
- SearchCourseInformation

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

8) **Class Name**: Forum

Parent Class: None

Subclasses: None

Responsibilities:
- Collect questions and answers posted by students
- Send a request via ForumManager to the server to add the course to the database

Collaborators:
CourseManager

9) **Class Name**: ForumManager

Parent Class: None

Subclasses: None

Responsibilities:
- Send request to add question/answer to the database

Collaborators:
- Forum

10) **Class Name**: SearchProfessorRating

Parent Class: None

Subclasses: None

Responsibilities:
- Search course professor rating
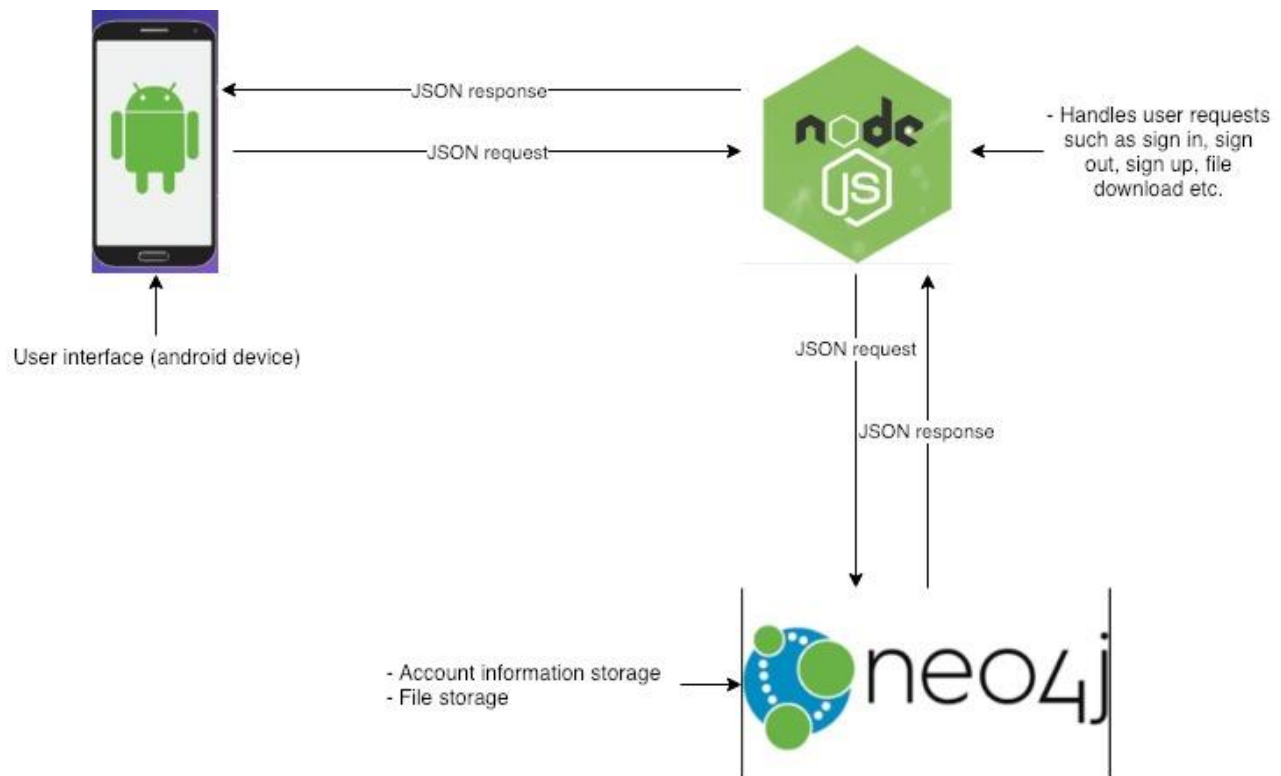- Send a request via ProfessorManager to the server to get the professor rating from the database

Collaborators:
- Forum

11) **Class Name**: ProfessorManager

Parent Class: None

Subclasses: None

Responsibilities:
- Send request to add professor details to the database

Collaborators:
- ProfessorRating
- SearchProfessorRating

12) **Class Name**: SearchCourseInformation

Parent Class: None

Subclasses: None

Responsibilities:
- Search course information
- Send a request via CourseManager to the server to get the professor rating from 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

About UCOURSE

UCOURSE is a one-stop platform for students to access all academic information required, such as course details, professor details, books for rent or purchase, online tutoring sessions, access to past documents etc.

This platform was developed by team "405 Found" as part of a project for CSC301: Introduction to Software Engineering, under the supervision of Professor Ilir Dema, University of Toronto.

The founders are Eashan Trehan, Preet Patel, ChenJun Zhao, Anandi Patel and Vo Danny

Course Information

Course Information

CSC301
Introduction to Software Engineering

Professor:	Ilir Dema
Average Grade:	A+
Workload:	High

Search For Professor's Details?

Search Another Course
Type a Course Code, Eg: CSC384

SUBMIT

Professor Details

Professor Details

Ilir Dema

Faculty:	Computer Science
Average Grade:	A+
Workload:	High
Quality Score:	100%

Search Another Professor
Type a Name, Eg: Michael Luit

SUBMIT

Professor Search

Professor Details

Enter A Professor's Name Below
Type a Name, Eg: Ilir Dema

Help leave a professor's review!

Name:	Eg: Ilir Dema
Courses:	Eg: CSC301
Quality Score:	Eg: 100%
Comments:	Eg: Awesome!

SUBMIT

Course Search

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