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Project Name: Study Buddy

Project Goal: To provide a better communication system for students attending classes.

Project Description: When it comes to classes and absences, some people would rather be without the day's information than to find someone willing to share their notes. This application aims to aide in that process by eliminating the face to face interaction, while making it easier to find those who were in class and are willing to share notes. Users will be able to go to the website and download the software. Once the software has been installed, the user will then be able to log into the server and enter codes corresponding to classes in which they are enrolled. The user will have the option to join a specific class chatroom and see all of the other students in the class. They will have the ability to speak to everyone publicly or be able to send private messages. The user will have the ability to view pictures provided by other students containing notes from the day's lecture or personal notes designed for the aiding of remote study sessions.

Project Requirements:

| <u>Physical</u>	<u>User Interface</u>	<u>Usability</u>
Server - a hub used to communicate with multiple clients. **Database** - for storing user information as well as login credentials. **Client** - Android device running Android OS 4.4 Kit Kat or higher.	**GUI** - graphical user interface for interacting with the server and other users. **Login window** - used to correctly identify a specific user to the server. **Profile Screen** - used to view member profiles as well as edit their own. **Classroom Activity** - a windows which displays all chat rooms and allows the user to choose which room to join. **Chatroom Activity** - a window which allows for public chatting. **Private Chat Activity** - a window which allows users to chat privately. **Registration Activity -** a windows which allows users to sign up for an	- Let user know when the server is unavailable. - Make user aware of any incorrect login responses. - Let a logged in user know when a class has been added to their profile. - Let user know when someone is sending a private message. - Let users know about incorrect class codes - Let user know they have signed in and signed out - Let the users know if there is no data, or internet service

	account from the application instead of website.	

| Functional	Performance	Security
- Allow for the creation of user accounts. - Be able to assign users to the correct classroom groups. - Provide user with easy to use interface for communication. - Allow users to communicate with one another both publicly and privately. - Allow users to upload photos of notes taken during class or scratch work which aids in the explanation of concepts. - Allow professors to mark students absent or present.	- The server should have sufficient enough hardware to support a load no greater than the total number of students in the school. - Network should be fast enough to support this same load. - Latest, up-to-date dependencies should be installed at both server and client level.	- Make sure the person someone is chatting with is actually the person they think they are chatting with. - Ensure the messages are not being tampered with during transmission. - Ensure conversations are not being eavesdropped upon.

System Models
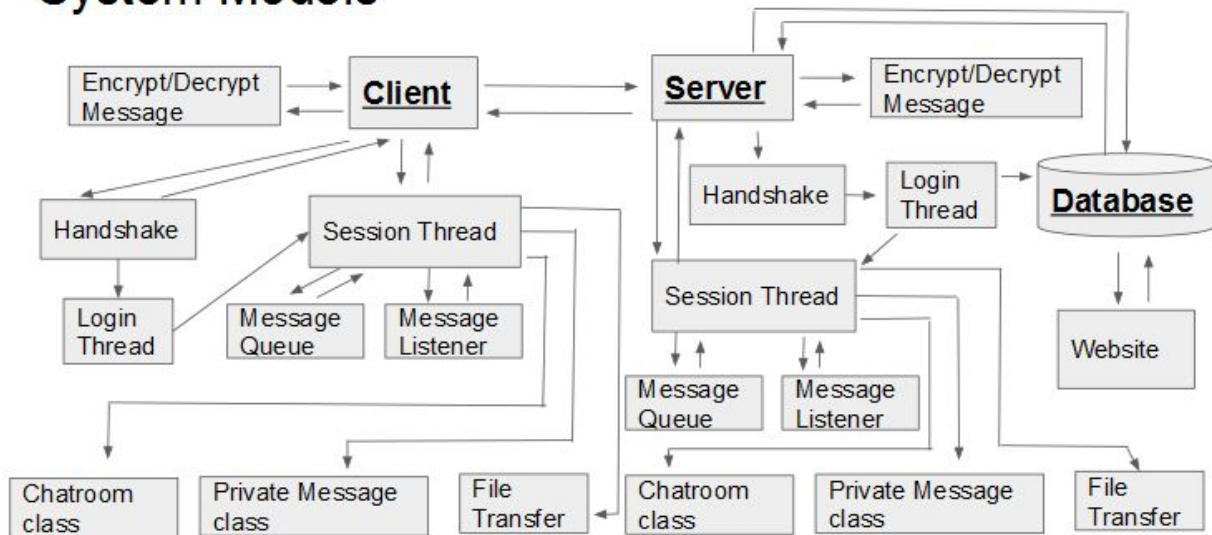
Alternative Java EE System Model
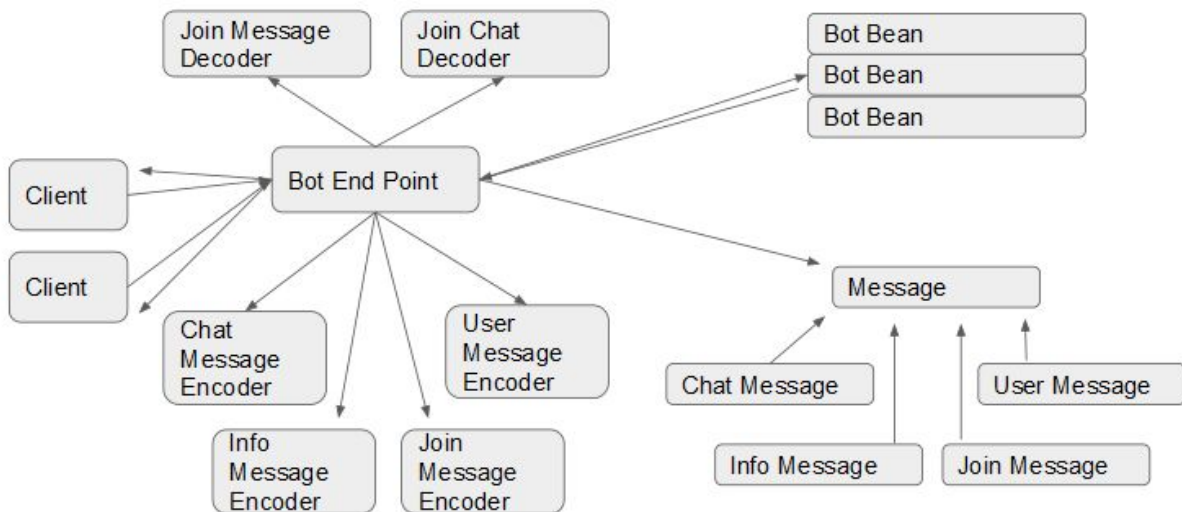
Sub Systems:

Application/Client Flow
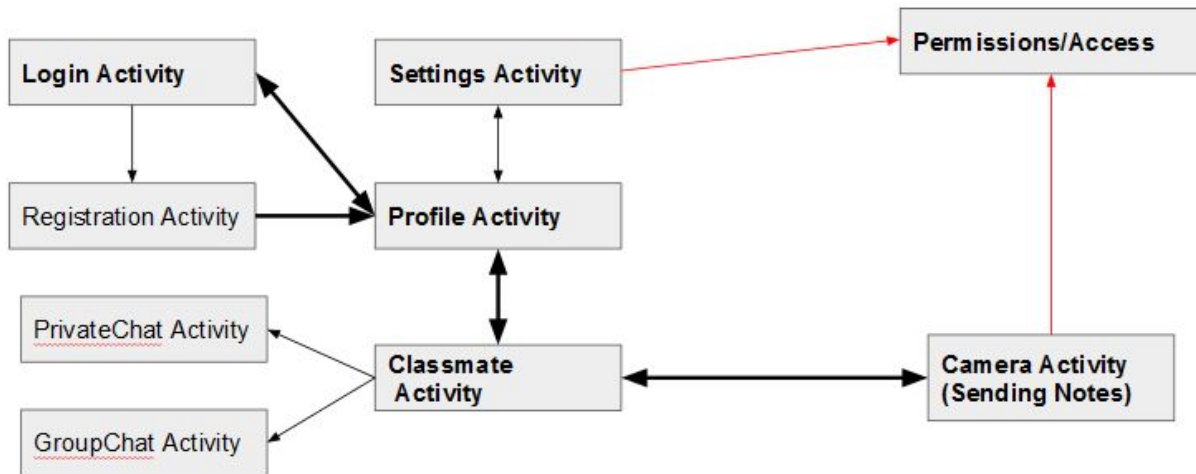
Database Model
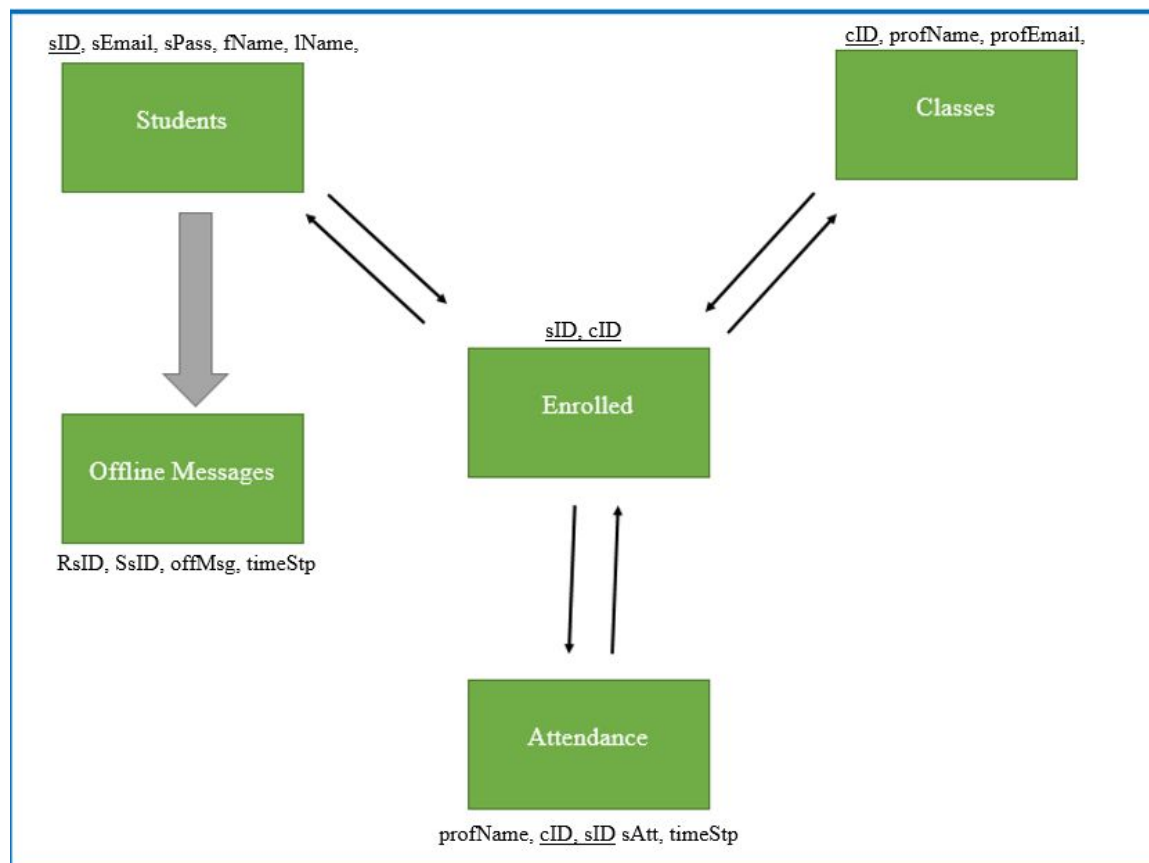
Member Roles:

Jaee will be leading the work for the database systems as well as working on server side implementation. Tony will be leading the client/server communication and working on server side implementation as well as client side implementation. Trayvon will be leading the work for the graphical user interfaces as well as working on client side implementation.