College Living

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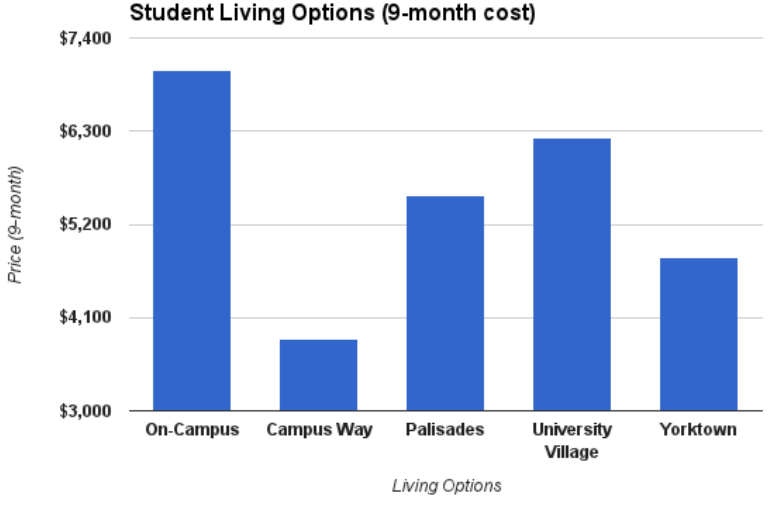
System Definition

* On-campus housing at UA is expensive
* Off-campus housing in Tuscaloosa is cheaper (9 month price of rent)
* College students need a safe and convenient way to interact



System Scope

* College Living will help localize and refine the search for roommates and apartments
* Users will initially answer a set of questions
  * Answers are used to rate compatibility with other users
* User and Apartment Information will be stored on remote database
* Apartment Contacts will use web-service
* Users can find other users to interact with

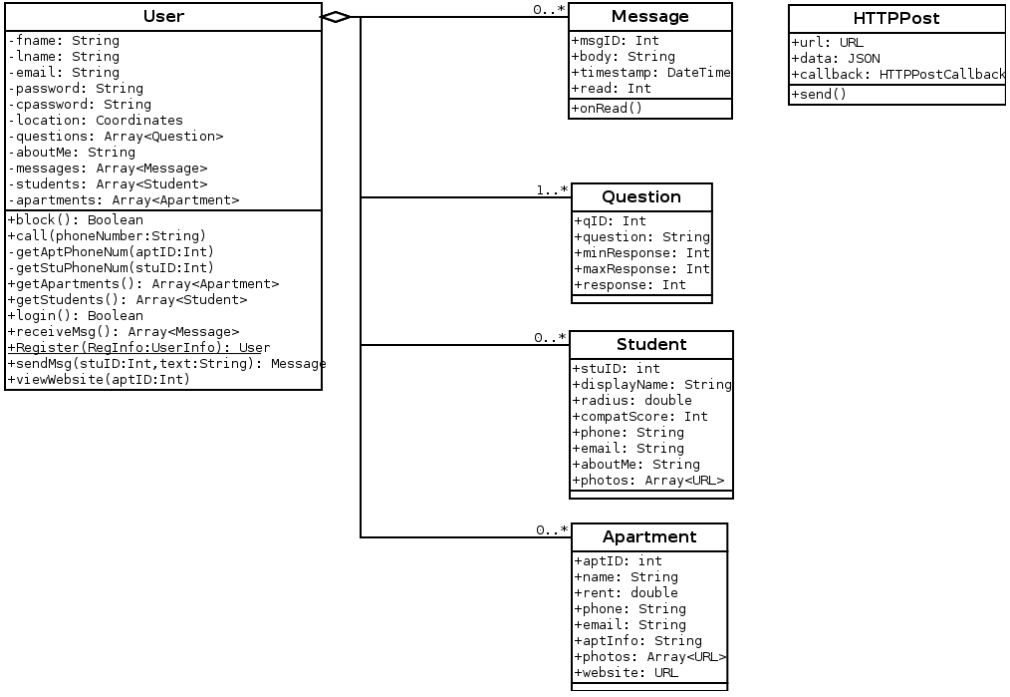
System Domain

Mobile
Operating System
(Android)

Web Server
with Server Side Language
(Apache w/ PHP)

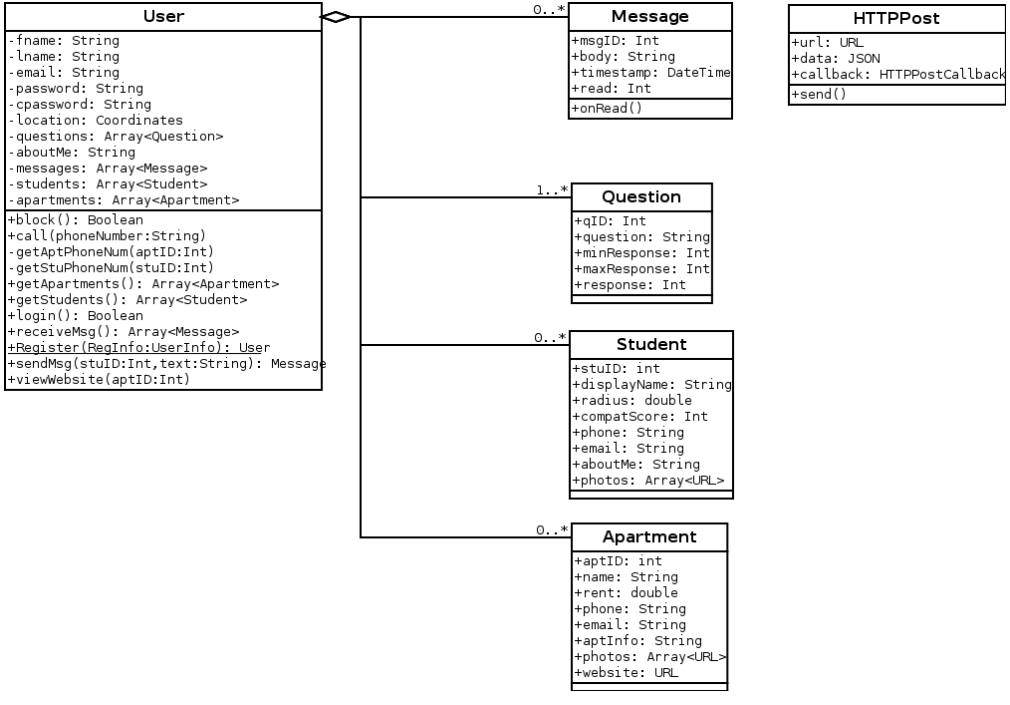
Database
(MySQL)

Class Diagram



* User Class
  * Logged-in user
  * Contains local apartments, students, and messages
  * Methods (Logging In, Registering, Messaging, etc.)
* Student/Apartment Class
  * Name, distance, profile, photos, etc.
  * Get/Set functions
* Message Class
  * Object for message transferring

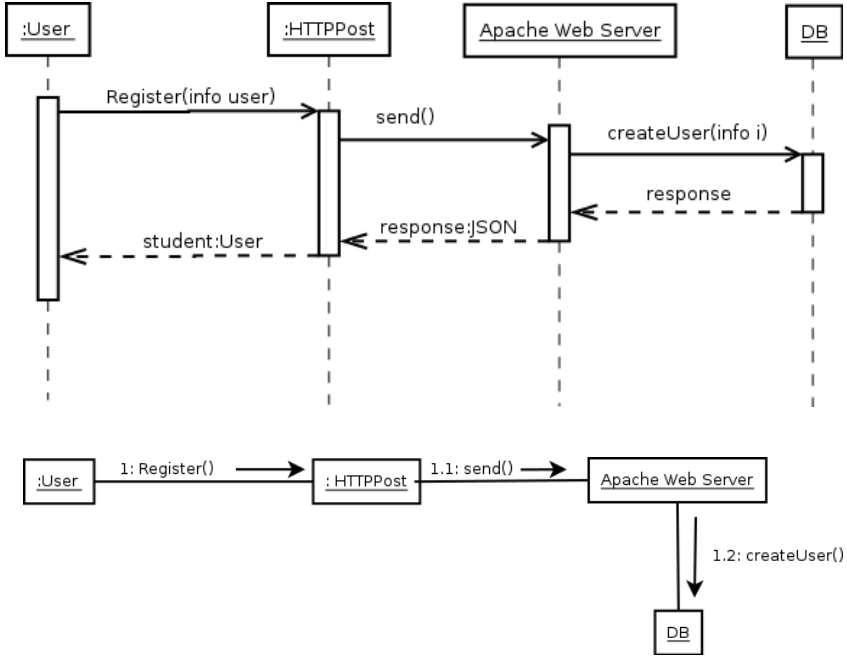
Class Diagram (cont'd)



* Question Class
  * Questions in questionnaire
  * Used with registration
  * Used for determining compatibility
* HTTPPost
  * Bridge between device and server
  * HTTP POST request with JavaScript Object Notation (JSON) body
  * Response will be JSON decoded string

Seq. & Com. Diagrams

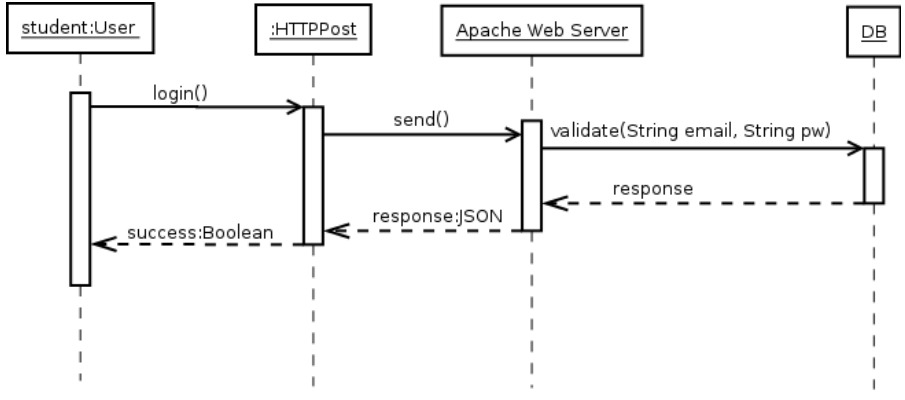
User Registration

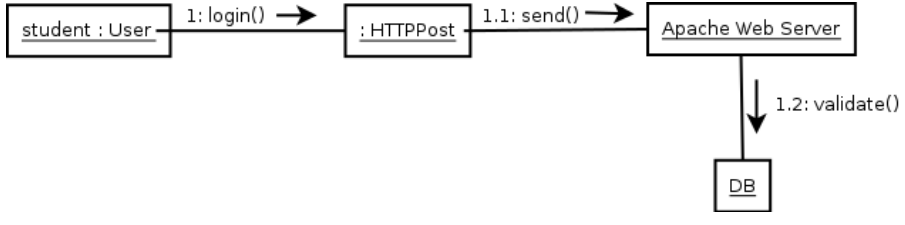


* User.Register() will send user information to server
* Server will create user
* User.Register() will return initialized User object

Seq. & Com. Diagrams

User Logging In

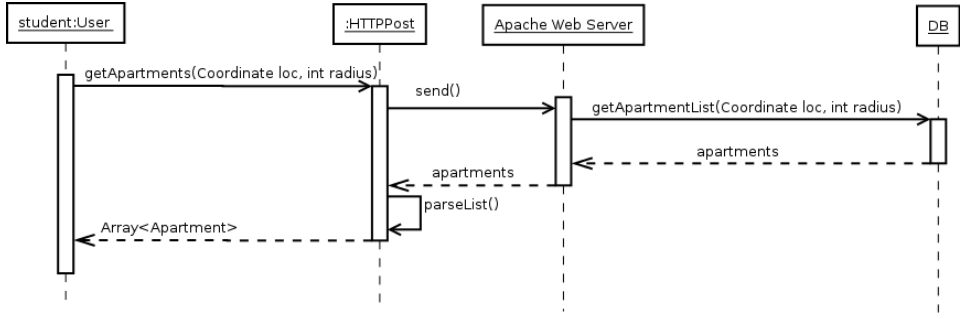




* User calls login with username and password
* HTTPPost sends request to server
* Server validates login with DB
* Returns success boolean

Seq. & Com. Diagrams

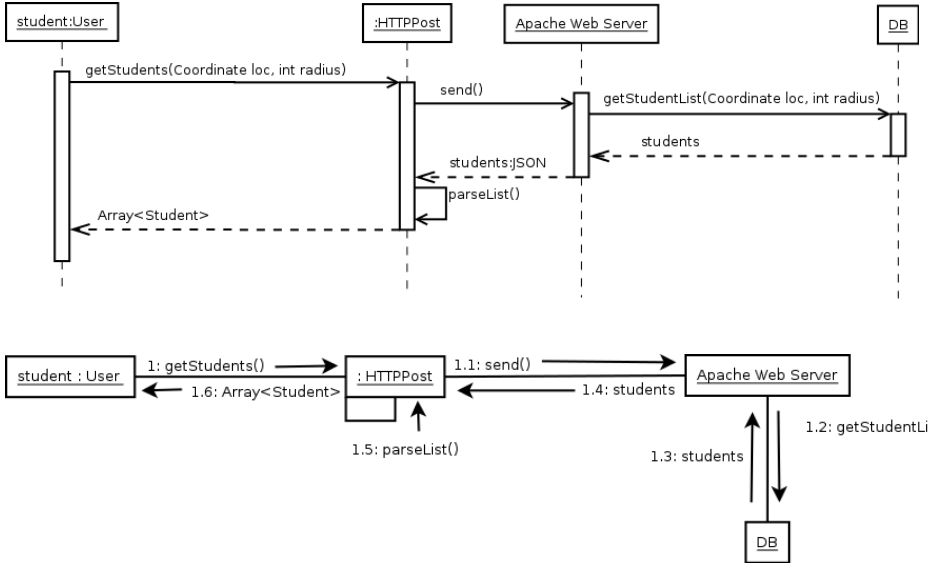
Retrieving Local Apartment List



* User calls getApartment() with current location and search radius
* HTTPPost sends request to server
* Server queries DB and pulls local apartment records, returns to User

Seq. & Com. Diagrams

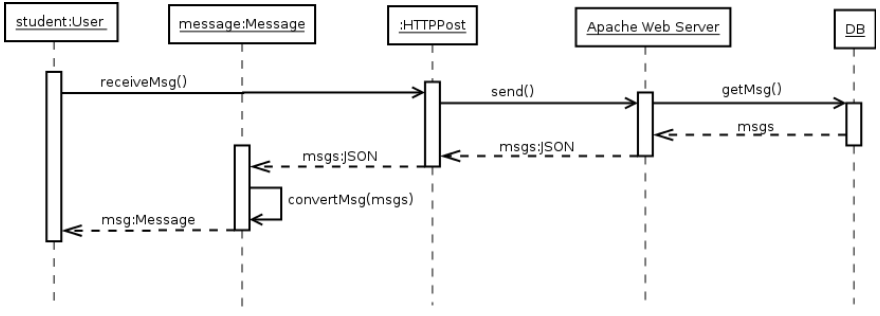
Retrieving Local Student List

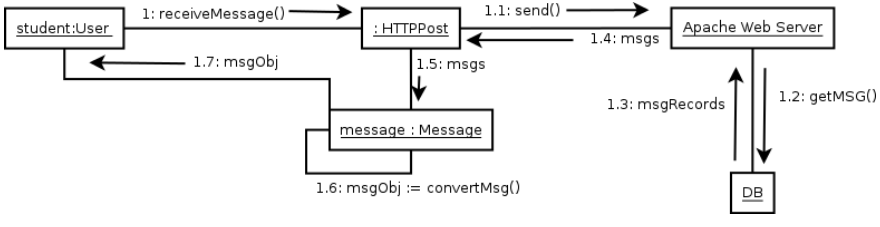


* User calls getStudent() with current location and search radius
* HTTPPost sends request to server
* Server queries DB and pulls local student records, returns to User

Seq. & Com. Diagrams

Retrieve New Messages

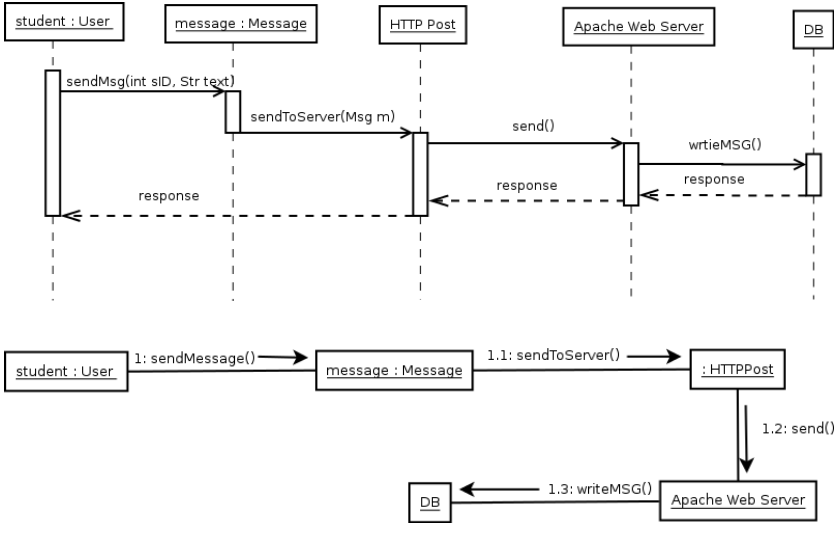




* User will call receiveMsg()
* HTTPPost will send request to server
* Server will get new messages from DB
* Server returns new messages to User

Seq. & Com. Diagrams

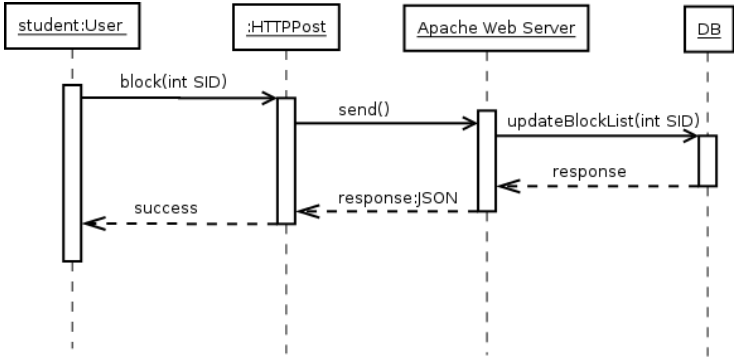
Sending Messages

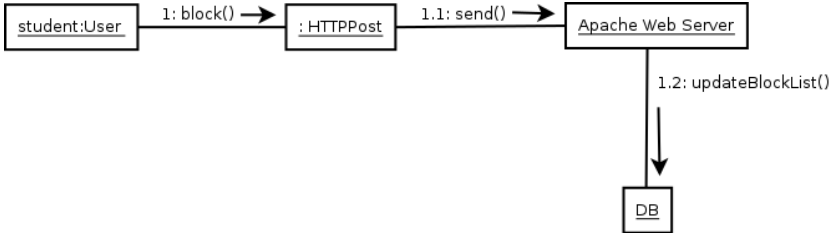


* User will call sendMsg() with student ID and message content
* HTTPPost will send message to server
* Server will post message to DB for other user to retrieve

Seq. & Com. Diagrams

Blocking a User

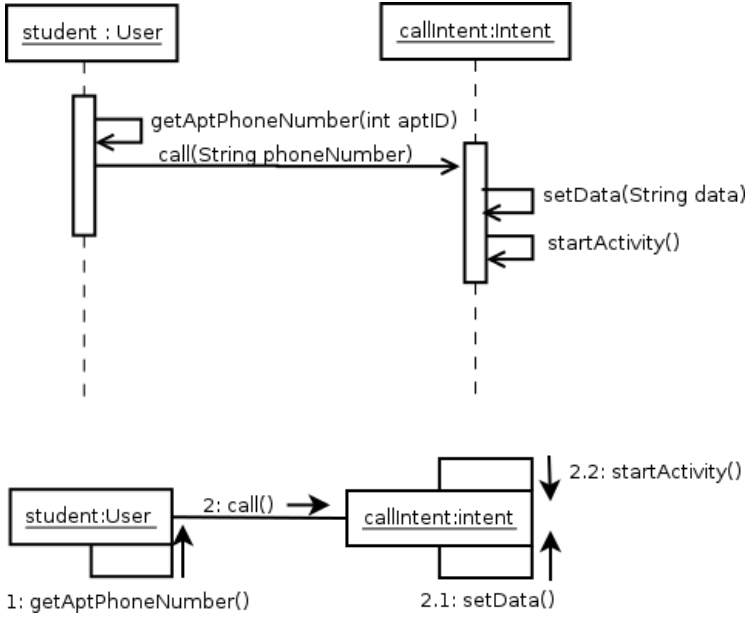




* User will call block() with student ID passed in
* HTTPPost will send request to server
* Server will update DB to reflect block

Seq. & Com. Diagrams

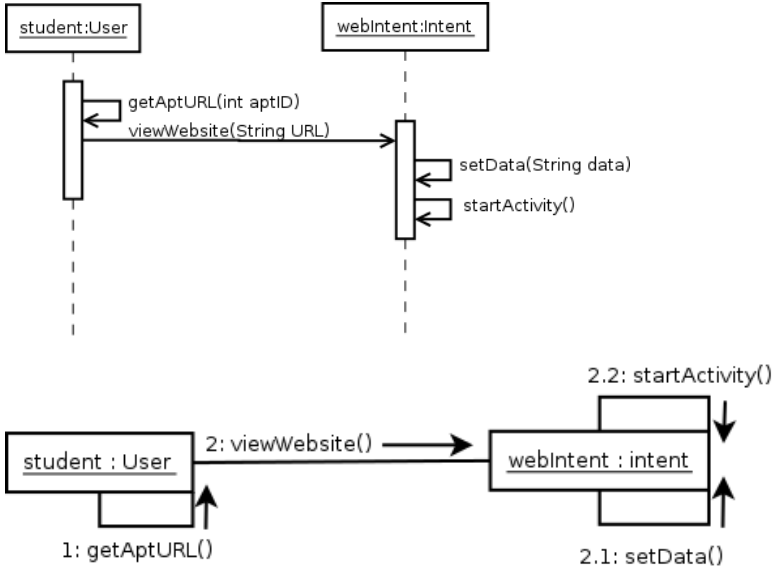
Calling an Apartment



* User calls getAptPhoneNumber() with apt ID to get phone #
* User calls call() with apt. phone #
* Intent is used to start call activity

Seq. & Com. Diagrams

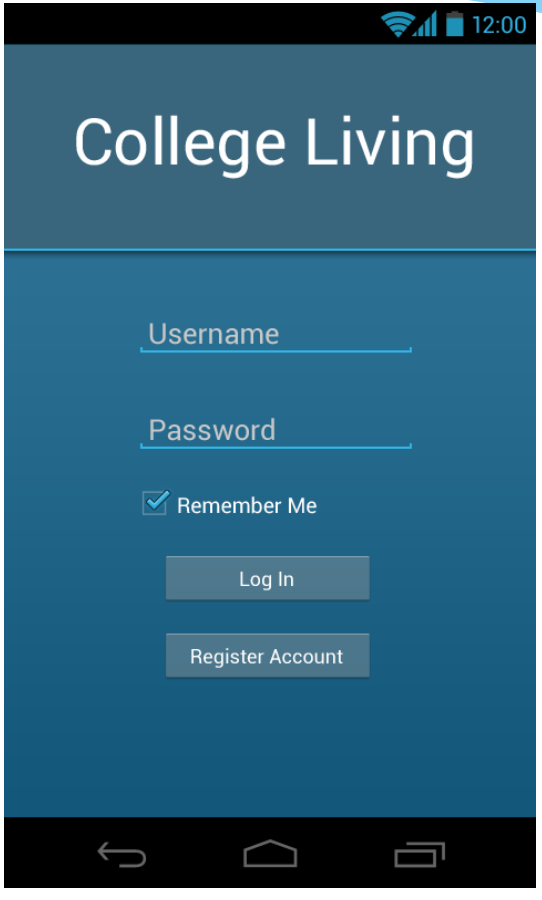
Viewing Apartment Website



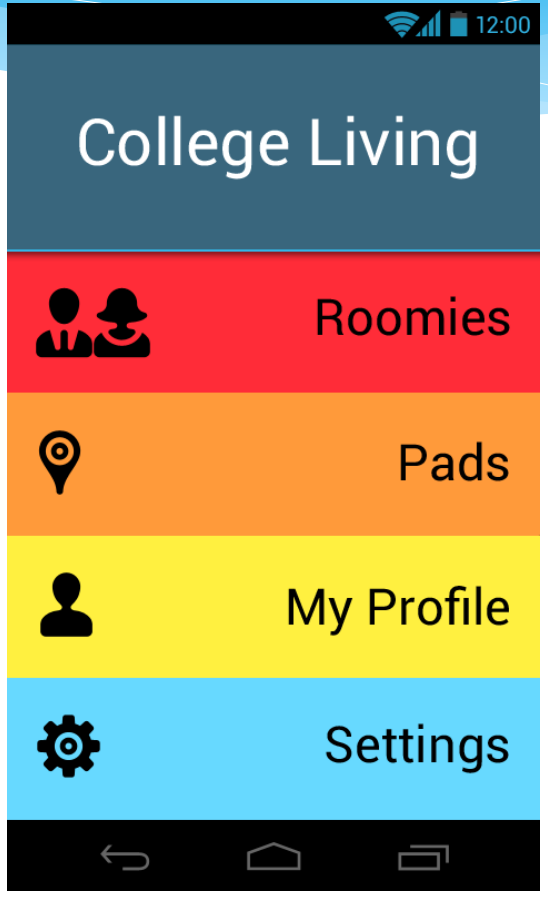
* User will call getAptURL() with apt. ID
* User will call viewWebsite() with the URL
* webIntent is initialized with apartment URL

Summary

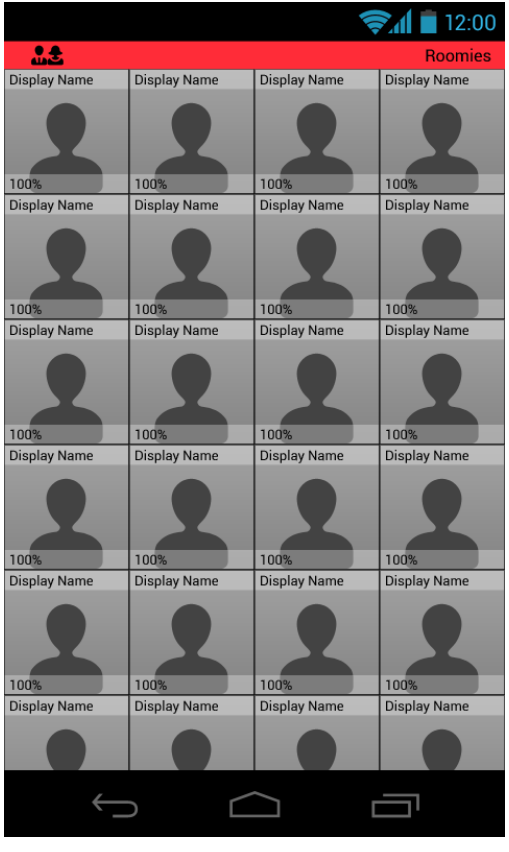
* No change of priorities
* System will utilize mobile OS, web server and database
* System will help students find roommates and a place to live
* Students can interact through messaging



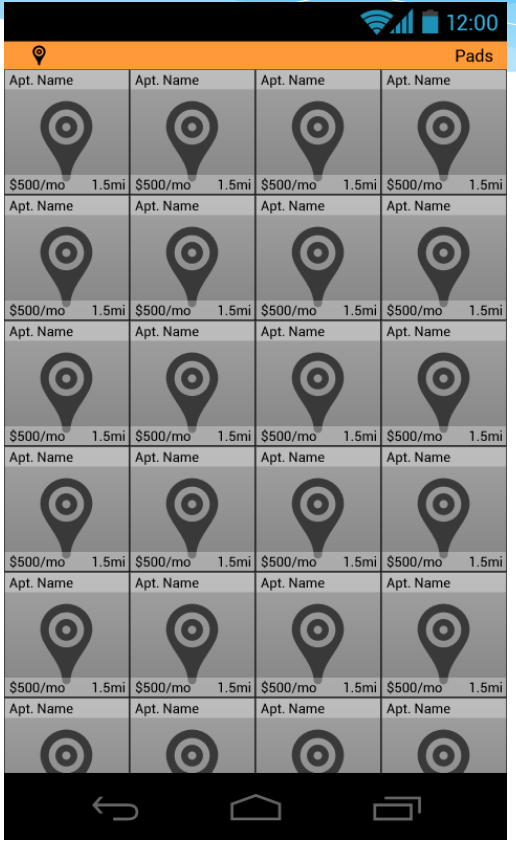
Log In Screen



Home Screen

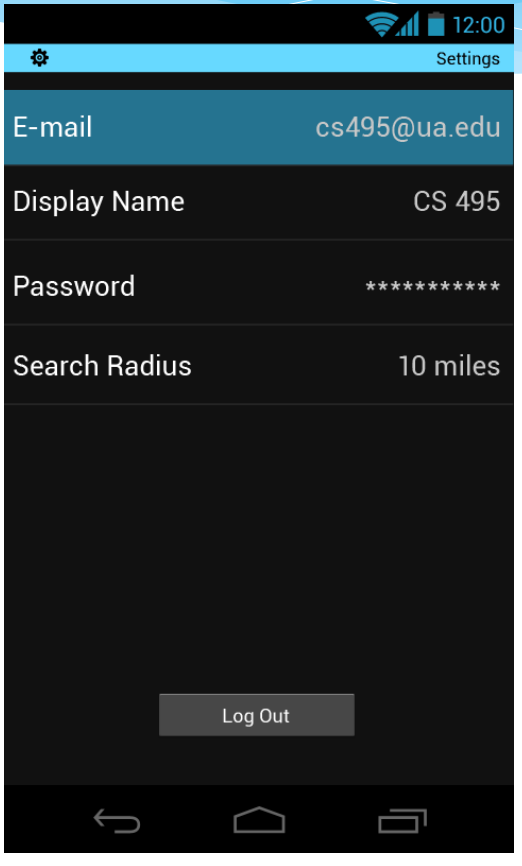


Roomies Screen



Pads Screen

General Profile Screen



Settings Screen