UML Diagram Session -session id: String -account_id: String +Session(accountId) +getAccount_id(): accountId +getSession_id(): sessionId Database Account AccountController -account id: int +register(username, password) -username: String +accounts: ArrayList <Account> +login(username, password): session id -password: String +listings: ArrayList <Listing> +logout(session_id) +sessions: ArrayList <Session> +delete(sessionId) +Account(username, password) ListingController Listing -listing_id: int +createListing(session id, Listing) +removeListing(session_id, listing_id) -account id: int +setOptions(session_id, listing_id, options) -options: Options +getOptions(listing_id): options +searchListings(location, checkIn, checkOut, guests, maxPrice): ArrayList<Int> listing_id +Listing(account_id, options) +searchListings(account_id): ArrayList<Int> listing_id Options -location: String -description: String -availableDays: ArrayList<Date> -price: float -maxGuests: int -images: ArrayList<Image> -contactInformation: String +getLocation: String +setLocation(location)

Our website will have 3 primary classes which will be stored in the database. Class Listing, which keeps track of house location, price, description, images and other details. Class Account, which keeps track of username and password and will be used to login and generate new session. Class Session, which will be created when the user logs in and will return a unique session id. Session id will be used to create new listings, thus making sure that unlogged in users cannot create new listings. Not logged in users will be able to also create listings.

+getDescription: String +setDescription(description) +getAvailableDays: availableDays +setAvailableDays(availableDays)

+setContactInformation(contact_information)

+getPrice: int +setPrice(price) +getMaxGuest: int +setMaxGuest(maxGuests) +getImages: images +setImages(images) +getContactInformation: String

CRC Cards

Account

- Has unique account id
- Starts new session
- Creates new listing
- Edits listings' options
- Removes listings
- Knows the password and username
- When registered saved in database

Listing

Listing

- Has unique listing id
- Knows the location
- Knows the description
- Knows the available days
- Knows the price per night
- Knows the maximum guests
- Has images
- Knows the owner contact information

• Options

Session

- Knows the account id
- Generates random session id when account logged in

Account

Database

- Knows all the listings
- Knows all the accounts
- Knows all the sessions

- Account
- Listing
- Session

User Log-in

Summary

• User visits a website and tries to log in.

Actors

- User.
- Database.

Preconditions

• User already need to have an account.

Triggers:

• User clicks on the "LogIn" button.

Primary Sequence

- 1. User clicks on the "LogIn" button.
- 2. System opens another tab for login.
- 3. User enters his email and password.
- 4. System validates credentials with the database.
- 5. System opens a new session with logged in user's account id and saves in the database.
- 6. System sends the session id back to the user.
- 7. System redirects the user to the home page.

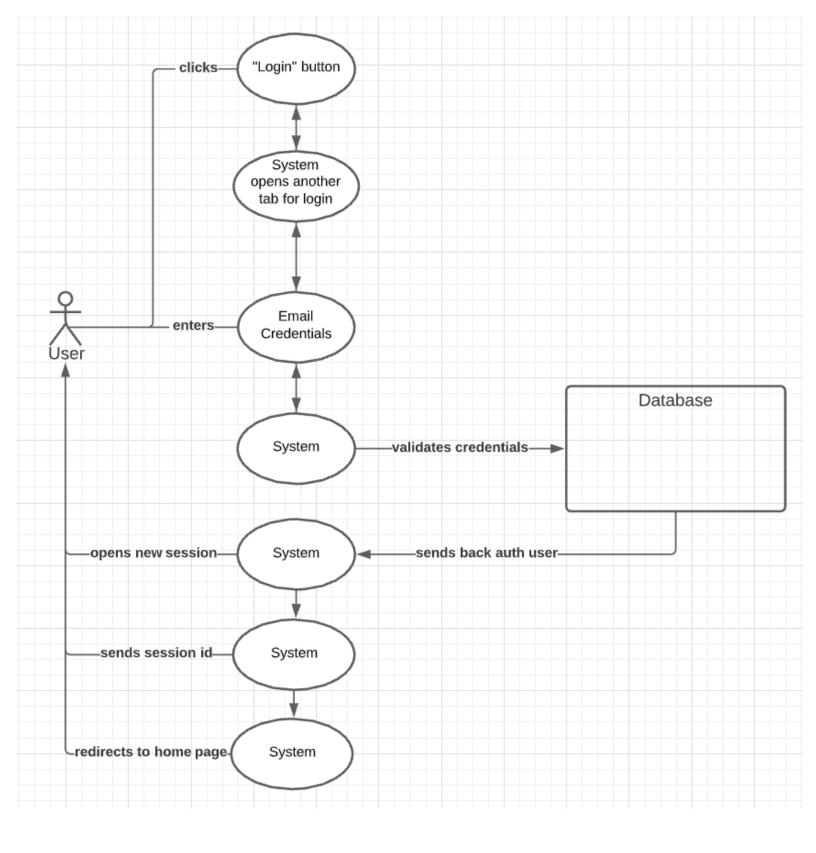
Primary Postconditions

• User logged in to the system with his session id.

Alternate Sequences

If email or password is invalid:

• System sends the user an error: "Invalid credentials".



Search Listings

Summary

• User searches for available listings using given search criterias.

Actors

- User
- Database

Preconditions

None

Triggers:

• User clicks on "Search" button

Primary Sequence

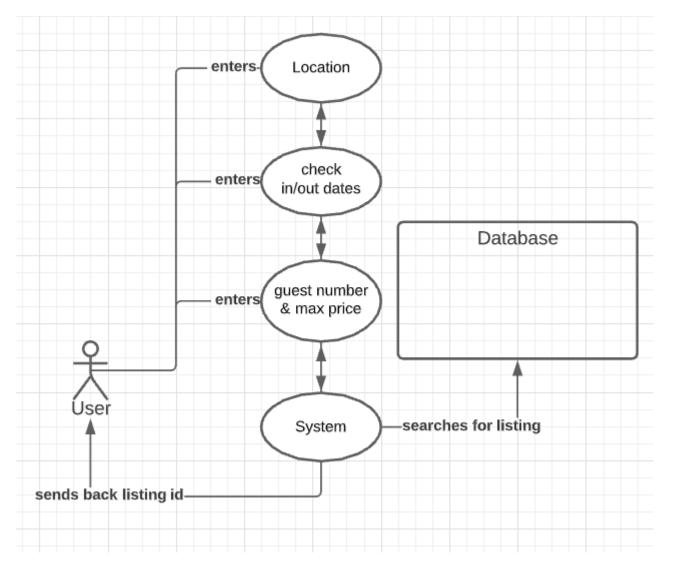
- 1. User enters the Location.
- 2. User enters the checkIn and checkOut dates.
- 3. User enters the number of guests and max price per day.
- 4. System searches in the database for the similar listings.
- 5. System sends back the listings ids.

Primary Postconditions

• Website displays the listings.

Alternate Sequences

• Similar listings were not found.



Create Listing

Summary

• User visits the website, Logs in, and tries to create a listing.

Actors

- User.
- Database.

Preconditions

- User already need to have an account.
- User need to be logged in.

Triggers:

• User click on the button "Create Listening".

Primary Sequence

- 1. User click on button "Create Listing"
- 2. System opens a new page called "new-listening"
- 3. User put his info: location, description, available days, maximum guests capacity, images and contact information.
- 4. System creates a new listing using the user's inputs and saves in the database.
- 5. System redirects the user to the home page.

Primary Postconditions

• User creates a new listing which is saved in the database.

Alternate Sequences

If some of the user's inputs are incorrect:

• System doesn't let the user finish creating his listening until all inputs are viable and sends a message: "name of the input" has incorrect input. Please change it to a proper input. For example: "example".

