To Implement: Email,Clicking on book retreives id from database. Queries to db.

The project is a hotel reservation system that will be a ~~web~~ java application. It will allow customers to interact with an interface allowing them to log in,sign up, cancel and make room reservations.There will be a databases that will be updated whenever data is modified i.e. there is a new user, or room is booked or reservation is canceled. The database will also be used to avoid overlapping bookings. Scripts will be used to automatically send emails as reminders and to confirm bookings.

~~UI FRONTEND BACK-END:~~

~~Photoshop,Django,Python,Html,Css,Javascript~~

**UI**

Swing

**Frontend**

Java

**BACK-END**

sqlite

Tools Of Software

horizontal line

# Functional Requirements

states the functions of the system - what it should do and what it should not.

New User

* 1. Must register to be able to book ( register personal info in a database) or sign in using known credentials

1. Registered User
   1. Can check the availability of rooms and can book or reserve or change reservations
2. Registration Of users
   1. Provide a user Email,Full name, Username,ID and a password
3. Check Availability
   1. Allow user to check free basic/delux rooms and dates available
      1. Do not allow user to view days that already past
      2. Having taken all the above input from the user, the system checks for any false entries like the checking out date being earlier than the checking in date on the onward trip. In case of incompatibility, the system shall display a suitable error message and prompt the user to enter the information correctly.
      3. query the database to check the available rooms.
4. Make Reservation
   1. User can click on button to book or go back to list of rooms windows:
      1. Send a confirmation email with reservation number
      2. Update database
5. Cancel Reservation
   1. Login
   2. Ask for reservation number
   3. Cancel and update database

## System Objectives

This section lists all the goals and objectives of the system categorized based on the viewpoint of the hotel company and the customer.

The hotel reservation system is a ~~web~~ java application that will allow customers to make room reservations, which includes blocking, reserving, canceling and rescheduling.

* Show all rooms available
* Allow customers to log in sign up
* Allow customers to book and cancel reservation

## Future Requirements

Not a priority can be incorporated in the future

* Targeted ads based on Gender,Age,Religion,Marital Status.
* Flexible prices based on how early the customer books the room
* Different gui for administrator. Better gui for customer
* Adding credit card only if user wants to reserve room/ charging credit card
* Add more hotels/Countries/Cities.
* list any rules regarding the cancellation of reservations
* Update profile and user info
* Allow the customer to reschedule his reservation.
* Show all the reservations, choose/enter the reservation number, then cancel/reschedule.
* System is available all day
* Meal Options
* Taxi order for pickup

## System Context

* Provide a GUI to help customer easily make reservations,check reservations,check room avaliability and prices. Also the ability to cancel and reschedule reservations
* Update database with new user information and room status.

## Non Functional Requirements

* Provide a GUI to help customer easily make reservations,check reservations,check room avaliability and prices. Also the ability to cancel and reschedule reservations
* Update database with new user information and room status.
* No crashes

Functions needed

* Login
  + This function allows a registered user to login his account using a username nd password. The system will check both username and password when trying to login and notify if there’s an error in password or if username is not found then there should be an option to sign up
    - Inputs:
      * username and password
    - Source:
      * All inputs are provided by user.
    - Outputs:
      * Indication that user is logged in to the system.
    - Destination:
      * Home Page.
    - Requires:
      * username and password.
    - Pre-Conditions:
      * User is not logged in to system. User has previously registered.
    - Post-Conditions:
      * User is logged in to system, OR user is not logged in because he/she entered unrecognized information.
* Sign Up
  + This function allows unregistered user to make a new account in the website. In order to create a new account, the user has to provide the required information.The system checks if all required data are provided. After allrequired information is provided, the database is update.
    - In the future the system can generate a back-up 2FA like key that a user can use for future authentication to increase security
  + Inputs:
    - Email,full name, user name, id and password
  + Source:
    - All inputs are provided by user.
  + Outputs:
    - Registration succesful message.
  + Destination:
    - Information displayed once to confirm. Database updated
  + Pre-Conditions:
    - User doesn’t already have an account
  + Post-Conditions:
    - User account is created and permissions elevated so user can book.
* List rooms
  + This window will list all the rooms available to be booked
* Reserve rooms
  + This window will allow you to book rooms (Must be logged in first) The user can specifiy the number of nights.Final Price should be shown and an alert box should be showed
  + Inputs:
    - User info (User must be already logged in)
  + Source:
    - Inputs from the user. Room details from the database.
  + Outputs:
    - Registration succesful message.
  + Destination:
    - Information displayed once to confirm. Database updated
  + Pre-Conditions:
    - User doesn’t already have an account
  + Post-Conditions:
    - User account is created and permissions elevated so user can book.
* LogOut
  + This function will save all the user operations and will securely log out of the account

User Classes and Characteristics

The main actors in the system are the user and the Hote(room).

* User

O Room

O Has properties of price type and availability