A HOSTEL BOOKING SYSTEM

INTRODUCTION

This proposed system deals with the design of a computerized database system that will manage bookings for a student's hostel at a university. This will replace the current manual system that involves booking through a manual process requiring the student to be present at the time of booking

This Hostel booking system is supposed to have the following features:

- Handle the activities of the admin, custodian and residents.
- Profile for Admin and Users
- Manage Students
- Room Details
- Hostel Booking
- Student Registration
- User Access logs

PROBLEM STATEMENT

The main concern of the proposed system is solving the inconveniences and delays students go through while booking hostel rooms.

In the current scenario, all the details related to the people living in hostels including booking a room is managed by humans manually and by the help of pen and paper and also requires the student to be present at the time of booking. Everything is so complex because it is not easy to handle all the information of the various students living in the hostel by the help of registers.

SYSTEM ARCHITECHURE

The **Model-View-Controller (MVC)** is an architectural pattern that separates an application into three main logical components: the model, the view, and the

controller. Each of these components are built to handle specific development aspects of an application. MVC is one of the most frequently used industry-standard web development frameworks to create scalable and extensible projects.

Model

The Model component corresponds to all the data-related logic that the user works with. This can represent either the data that is being transferred between the View and Controller components or any other business logic-related data. For example, a room object will retrieve the room information from the database, manipulate it and update its data back to the database or use it to render data.

View

The View component is used for all the UI logic of the application. For example, the User view will include all the UI components such as text boxes, dropdowns, etc. that the final user interacts with.

Controller

Controllers act as an interface between Model and View components to process all the business logic and incoming requests, manipulate data using the Model component and interact with the Views to render the final output. For example, the Room controller will handle all the interactions and inputs from the Room View and update the database using the Room Model. The same controller will be used to view the room details.

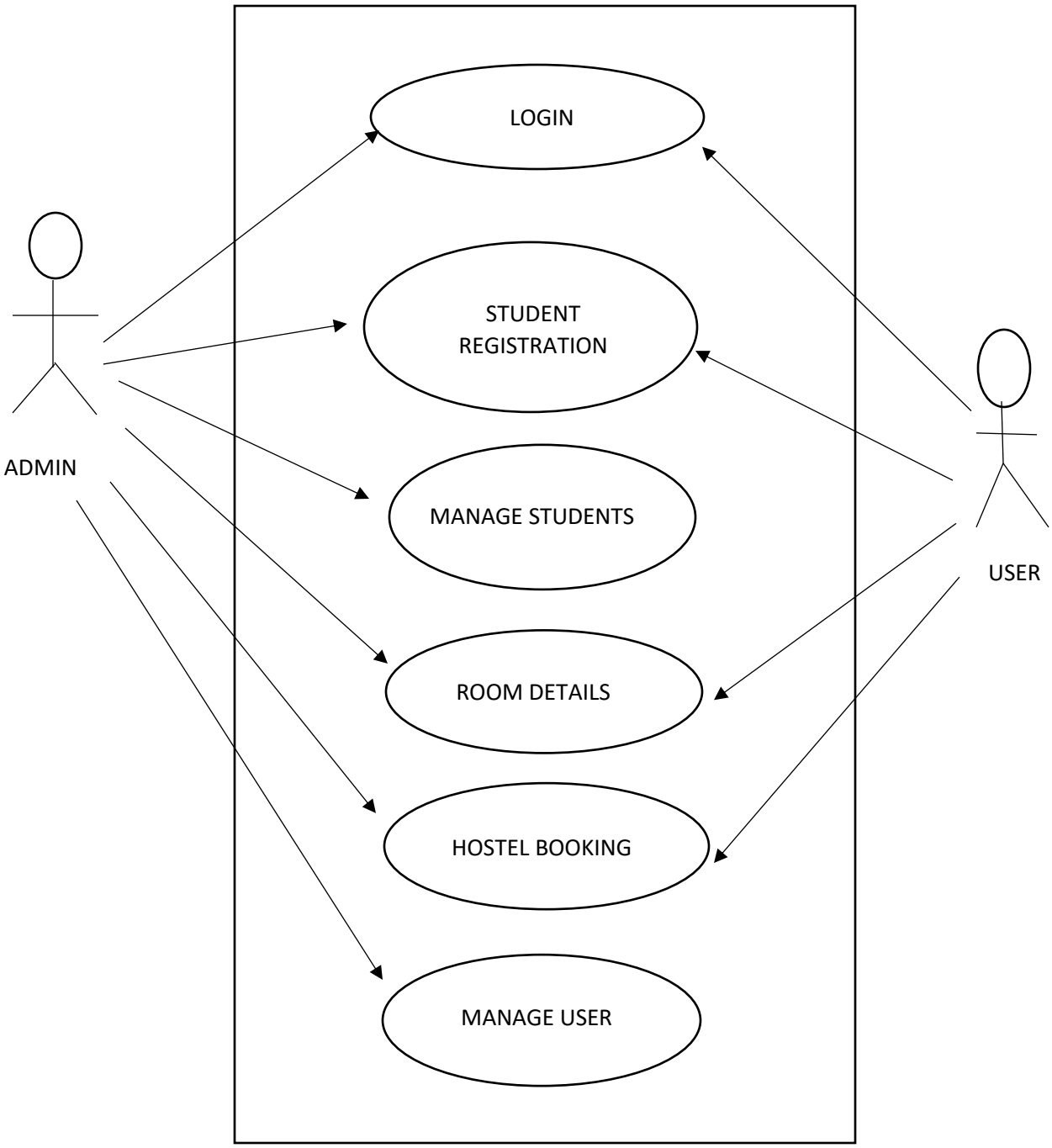
We can configure the system on the following operating systems;

Windows: This system can be easily configured on windows operating system. To run this project on a windows system, you will have to install Xamp or Wamp on your system.

Linux: We can run this system on all versions of the Linux operating system

Mac: we can also configure this system on the Mac operating system.

HOSTEL BOOKING SYSTEM USE CASE DIAGRAM



DESCRIPTION OF USE CASE DIAGRAM

ADMIN

LOGIN: The admin is able to sign in to the admin dashboard using the admin credentials which are hard coded in the system for easy access. The admin dashboard will display the number of students at the hostel and their courses and the total number of rooms at the hostel.

Student Registration

The admin also has the privilege of registering a new student into the system by entering the required student details. The admin can also edit and delete any of the student's details.

Manage Students

The admin has the rights to view the number of students registered, delete and also add new students.

Room Details

The admin has the rights to manage the rooms and the fees structure for each room.

Hostel booking

The admin can view the student's details of those who have booked rooms at the hostel, the room number and type, the time frame of the booking and how much they have paid. He is also able to book for a student and also delete one from the system.

Manage users

The admin is able to add a new user to the system, either a student or another administrator.

STUDENT;

LOGIN

The student is prompted to login in to the system with their email and password if they already have an account but if not, they are required to first create an account or sign up in the system. After signing in, the student's dashboard displays the student profile and Room details incase they have booked a room.

Hostel booking

The student is prompted to fill a form where he/she is required to put all the required details necessary for hostel booking such us their contact information, address, room type and time period for stay.

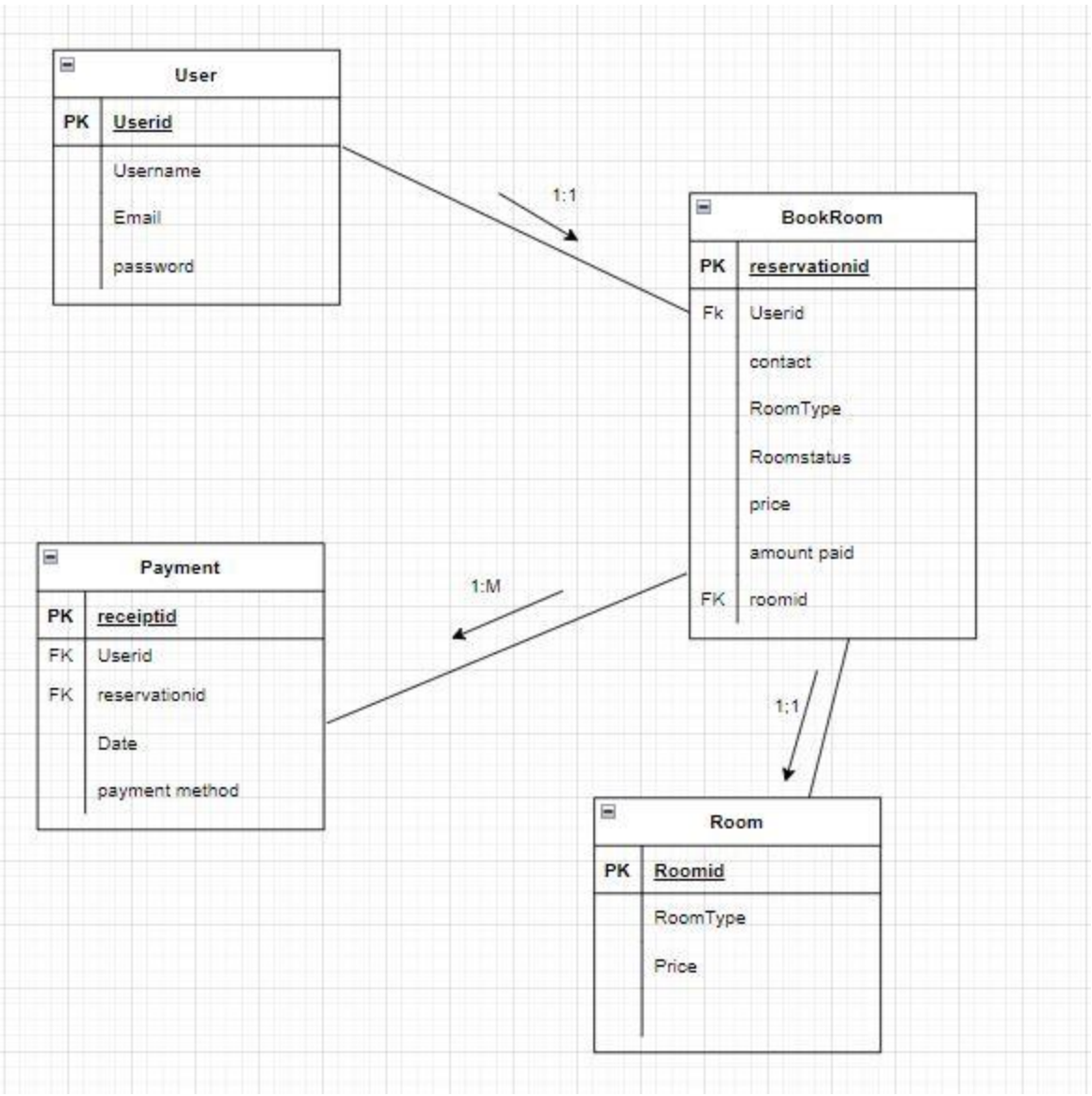
Room Details

After booking the room, the student is able to view the room details or room related information.

Change password

This enables the student to change their password to a new password.

ERD DIAGRAM


User
PK
Userid
Username
Email
password
1:1
BookRoom
PK
reservationid
Fk
Userid
contact
RoomType
Roomstatus
price
amount paid
FK
roomid
Payment
PK
receiptid
FK
Userid
FK
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