

UE19CS353 – Object Oriented Analysis and Design with Java

Theory ISA (Mini Project)

Presentation on
Hotel Management System

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6th Semester <D>

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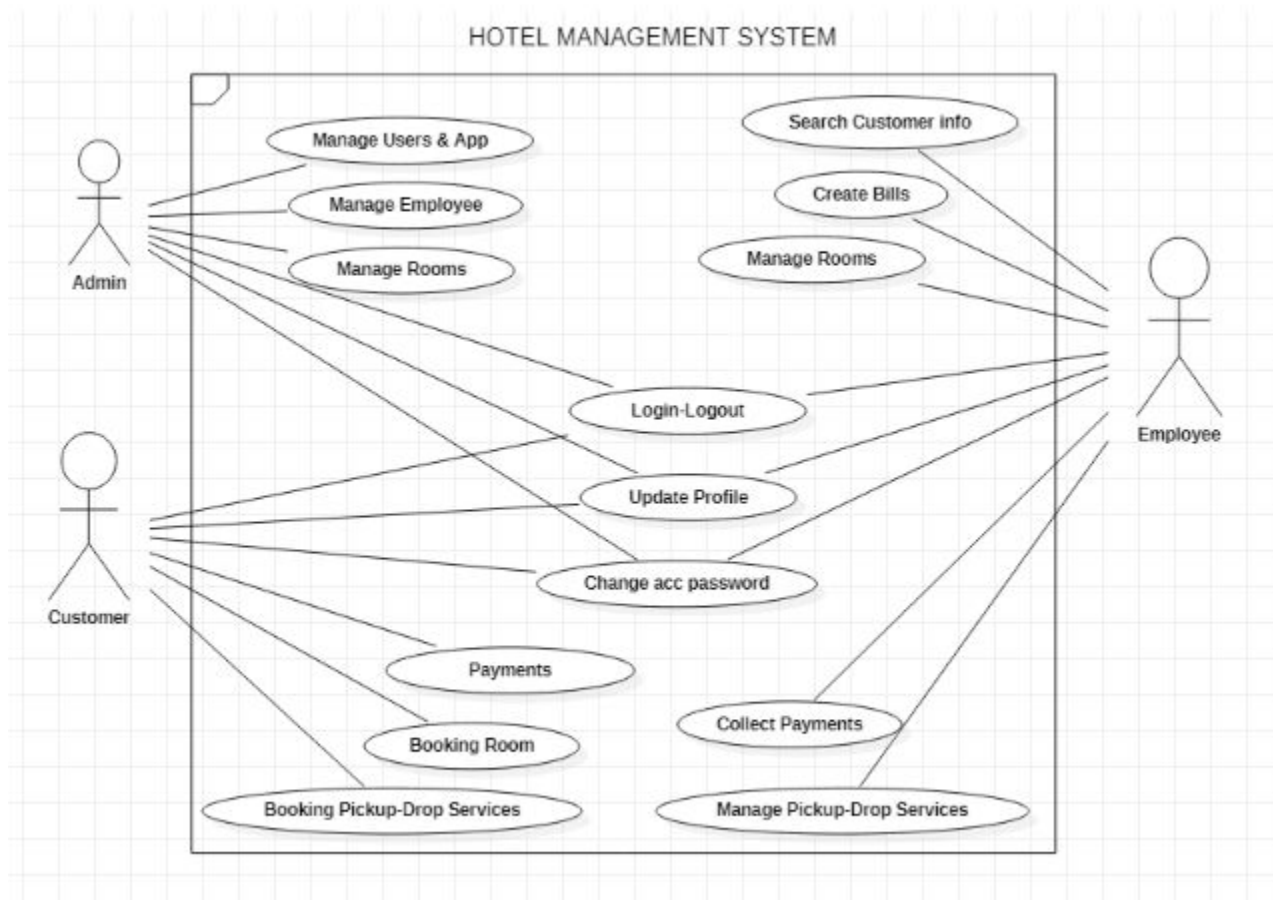
Department of Computer Science & Engineering

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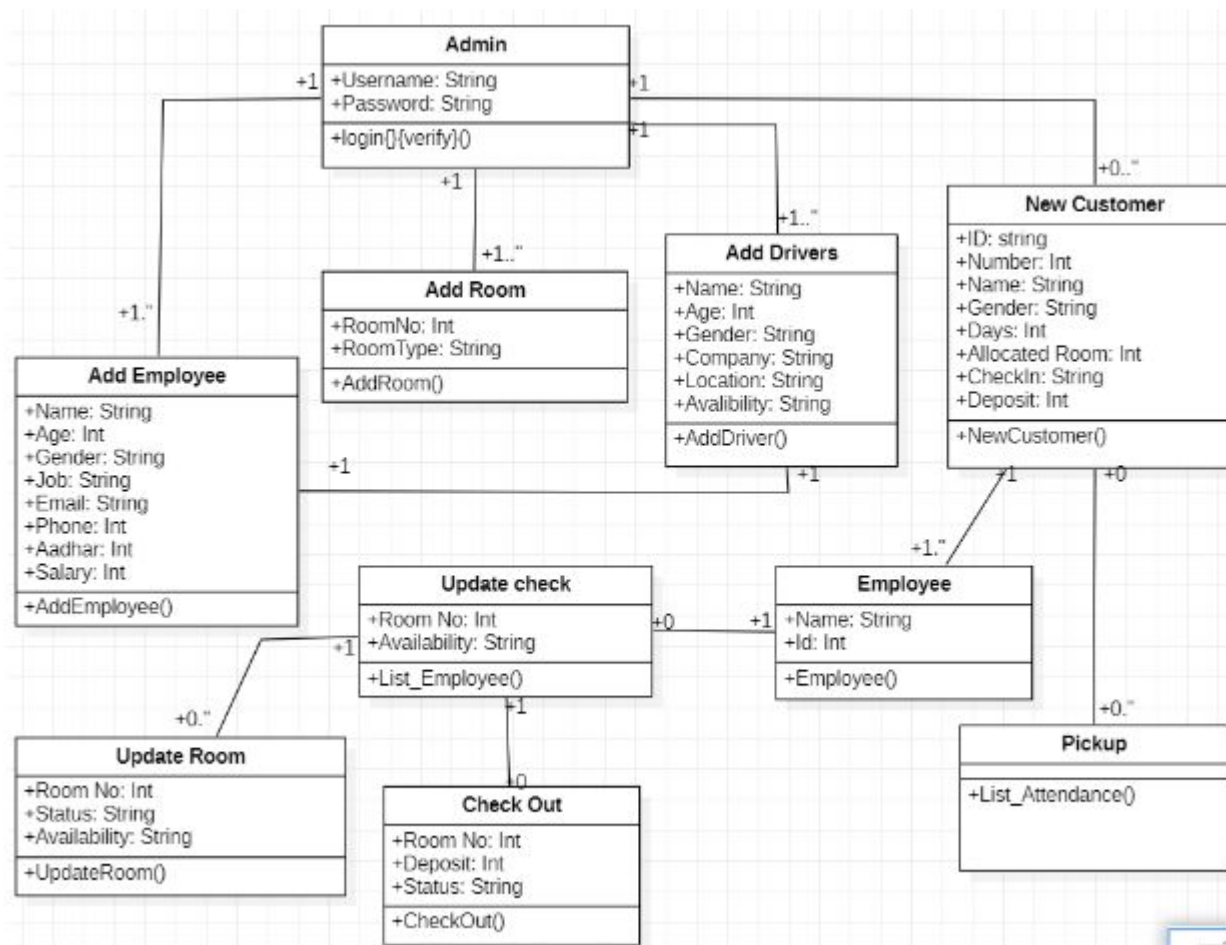
Project Description

Hotel Management System is a project that manages a typical hotel environment which includes room availability operations, customer friendly service, and maintains employee status. To make it more user friendly, we provide a simple UI which has features like allocation of rooms as per the customer need and interest, records such as checkout time and details, releasing or empty of room and to record the process in a computer system for future.

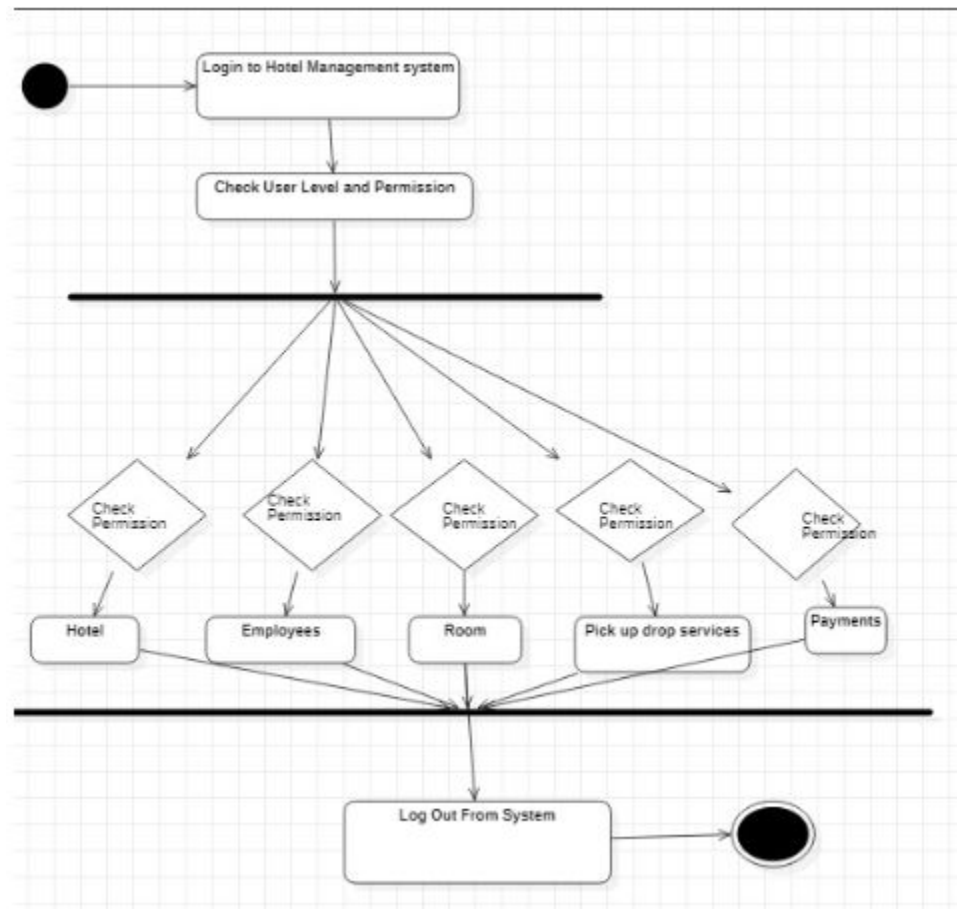
- Use Case Diagram



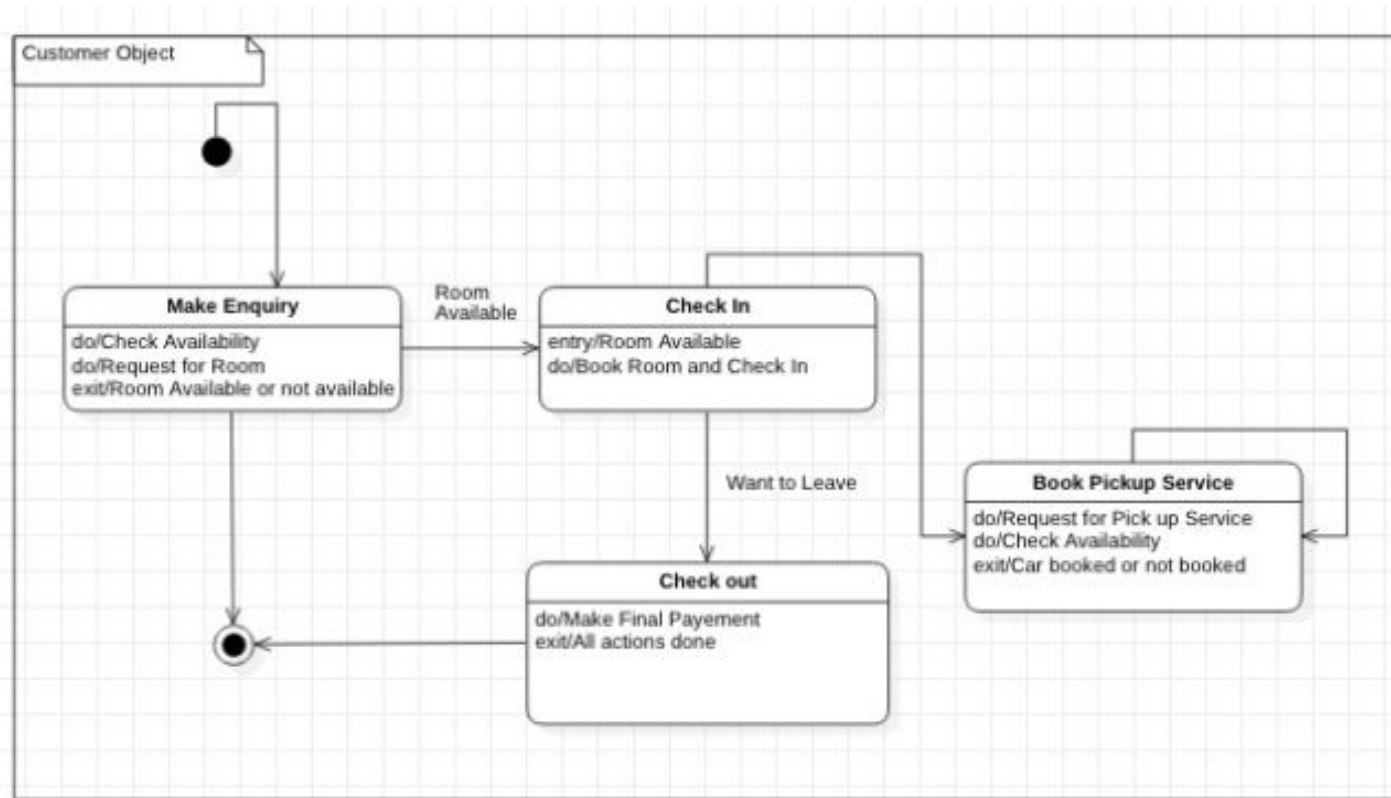
- Class Diagram



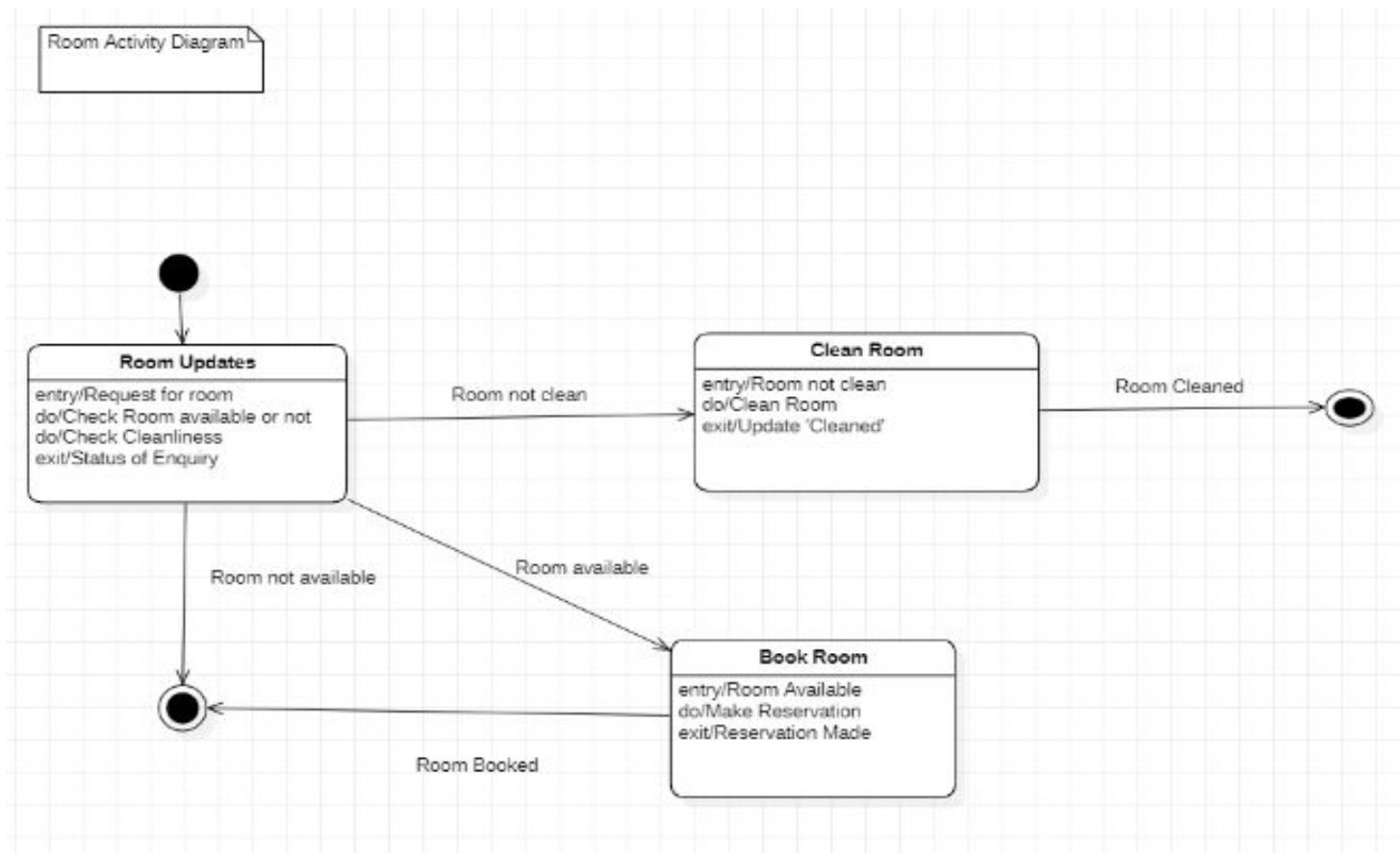
- Activity Diagram



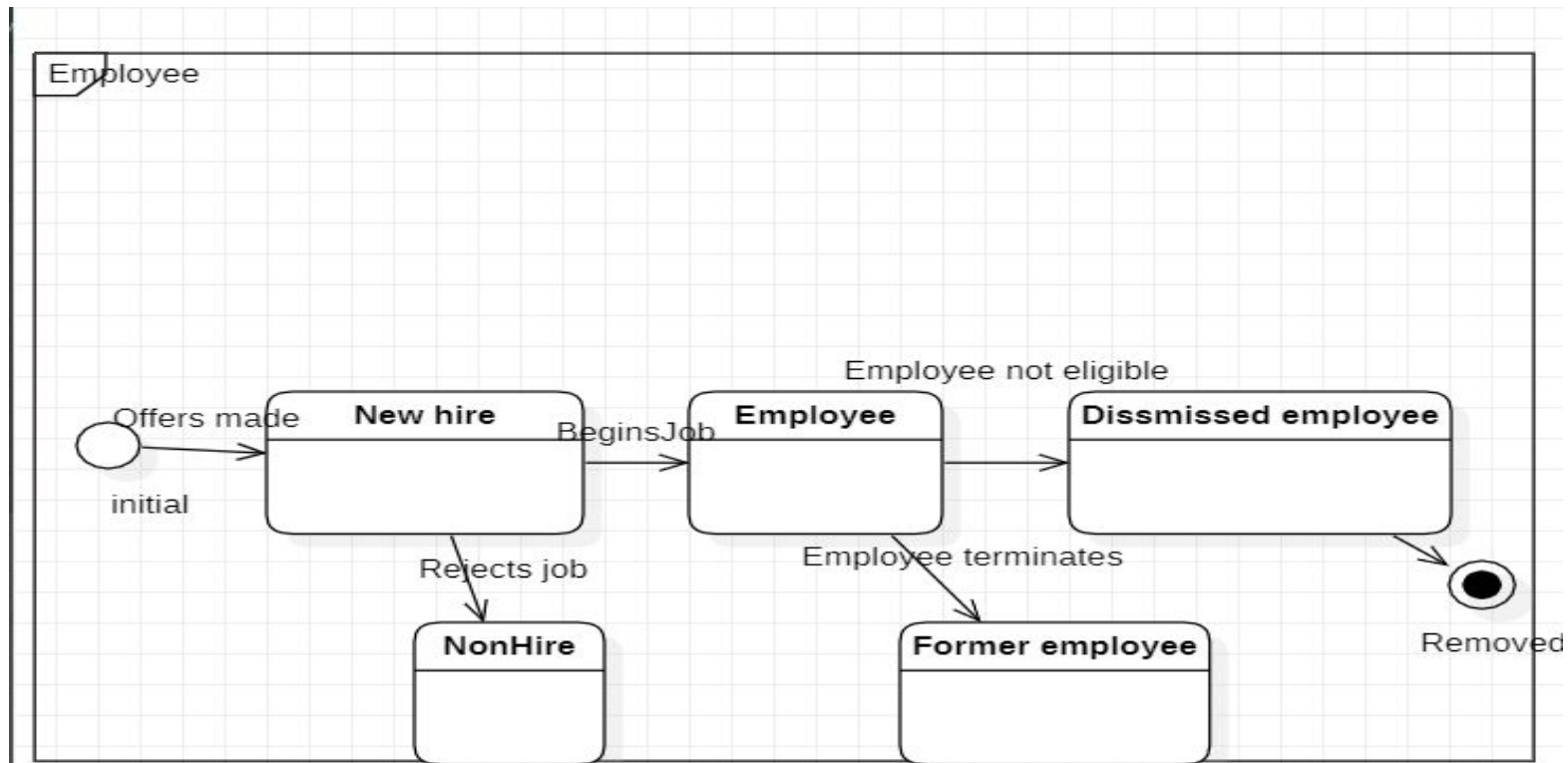
- State Diagram - Customer



- State Diagram - Room

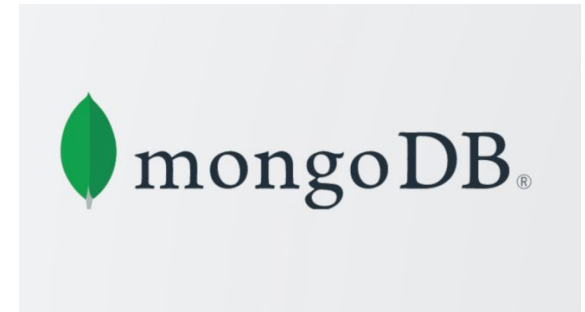


- State Diagram - Employee



Tools and Frameworks Used

- MongoDB for DataBase
MongoDB is a source-available cross-platform document-oriented database program. Classified as a NoSQL database program, MongoDB uses JSON-like documents with optional schemas.
- SpringBoot Framework -
Spring Boot helps you to create stand-alone, production-grade Spring-based applications. Using this we were able to apply MVC Architecture to our project.



Tools and Frameworks Used

- Thymeleaf

Thymeleaf is a modern server-side Java template engine for both web and standalone environments.

Thymeleaf is ideal for modern-day HTML5 JVM web development as it helps to replace JPA with simple html



- Bootstrap framework

Bootstrap is a free front-end framework for faster and easier web development.

It helps in creating responsive websites.



Tools and Frameworks Used

- Eclipse IDE

Eclipse is an integrated development environment used in computer programming. It contains a base workspace and an extensible plug-in system for customizing the environment.



- Github

GitHub, Inc. is a provider of Internet hosting for software development and version control using Git. It offers the distributed version control and source code management functionality of Git, plus its own features



Observer Pattern

Model-View-Controller (MVC) frameworks also use Observer pattern where Model is the Subject and Views are observers that can register to get notified of any change to the model.

Everytime a value is added or updated, the admin is notified through the terminal regarding the update by default. This can be extended to apply to different users as well to topics they subscribe to.

Object Oriented Analysis and Design with Java (Mini Project)

Design Principle and Design Patterns Applied



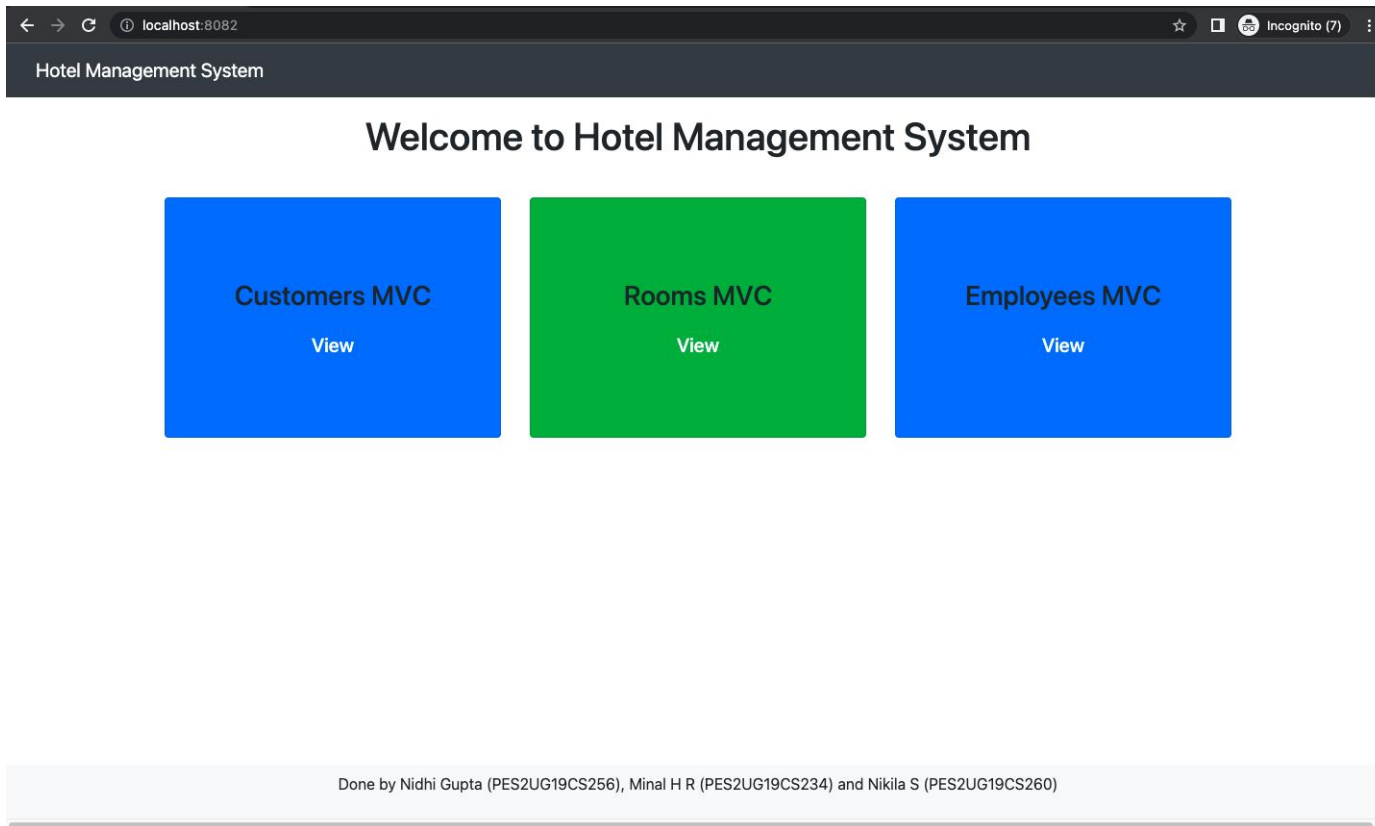
```
2022-04-26 09:21:39.308 INFO 80814 --- [          main] o.s.b.w.embedded.tomcat.TomcatWebServer : Tomcat started on port(s): 8082 (http) with context path ''
2022-04-26 09:21:39.321 INFO 80814 --- [          main] c.e.h.HotelManagementApplication      : Started HotelManagementApplication in 9.888 seconds (JVM running for 11.39)
2022-04-26 09:21:46.682 INFO 80814 --- [nio-8082-exec-1] o.a.c.c.C.[Tomcat].[localhost].[/]   : Initializing Spring DispatcherServlet 'dispatcherServlet'
2022-04-26 09:21:46.683 INFO 80814 --- [nio-8082-exec-1] o.s.web.servlet.DispatcherServlet     : Initializing Servlet 'dispatcherServlet'
2022-04-26 09:21:46.684 INFO 80814 --- [nio-8082-exec-1] o.s.web.servlet.DispatcherServlet     : Completed initialization in 1 ms
06362313916
2022-04-26 09:22:06.953 INFO 80814 --- [nio-8082-exec-2] org.mongodb.driver.connection         : Opened connection [connectionId{localValue:3, serverValue:118}] to localhos
t:27017
06362313916
06362313916
```

The above implementation is shown for any update done to the customers, to which customer it is done for. The customer having the number 06362313916

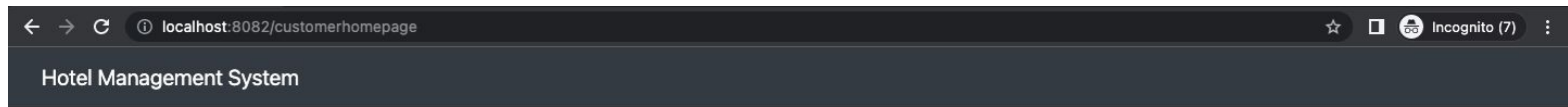
- **MVC Framework**

It is an architectural pattern that divides an application into Model, View and Controller.

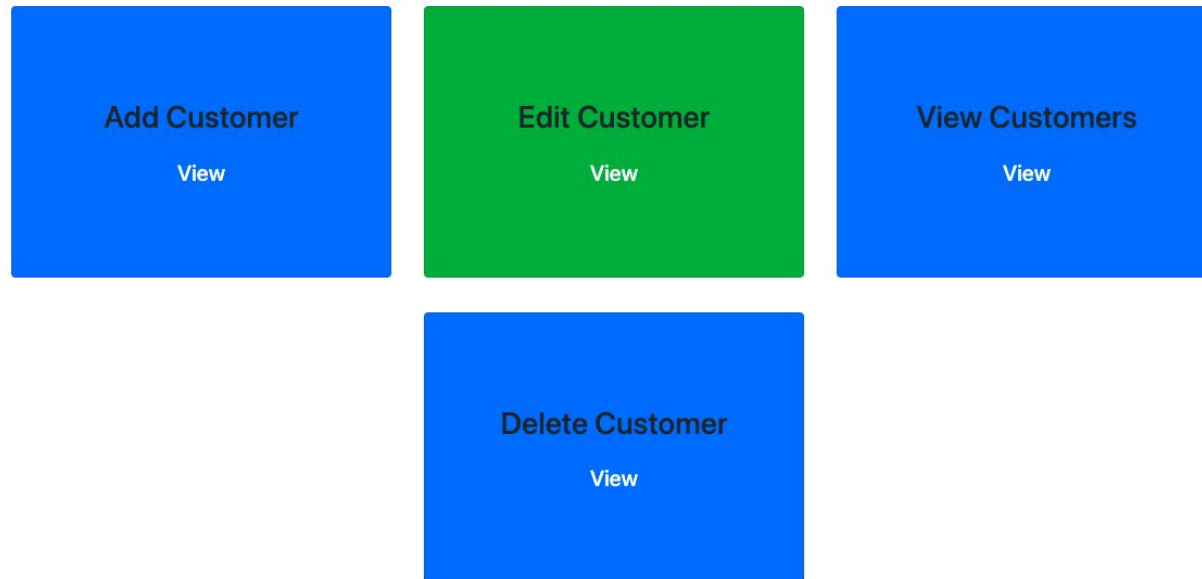
Main Homepage



Customers MVC



Customers MVC



Room MVC

Home Page

Hotel Rooms Details

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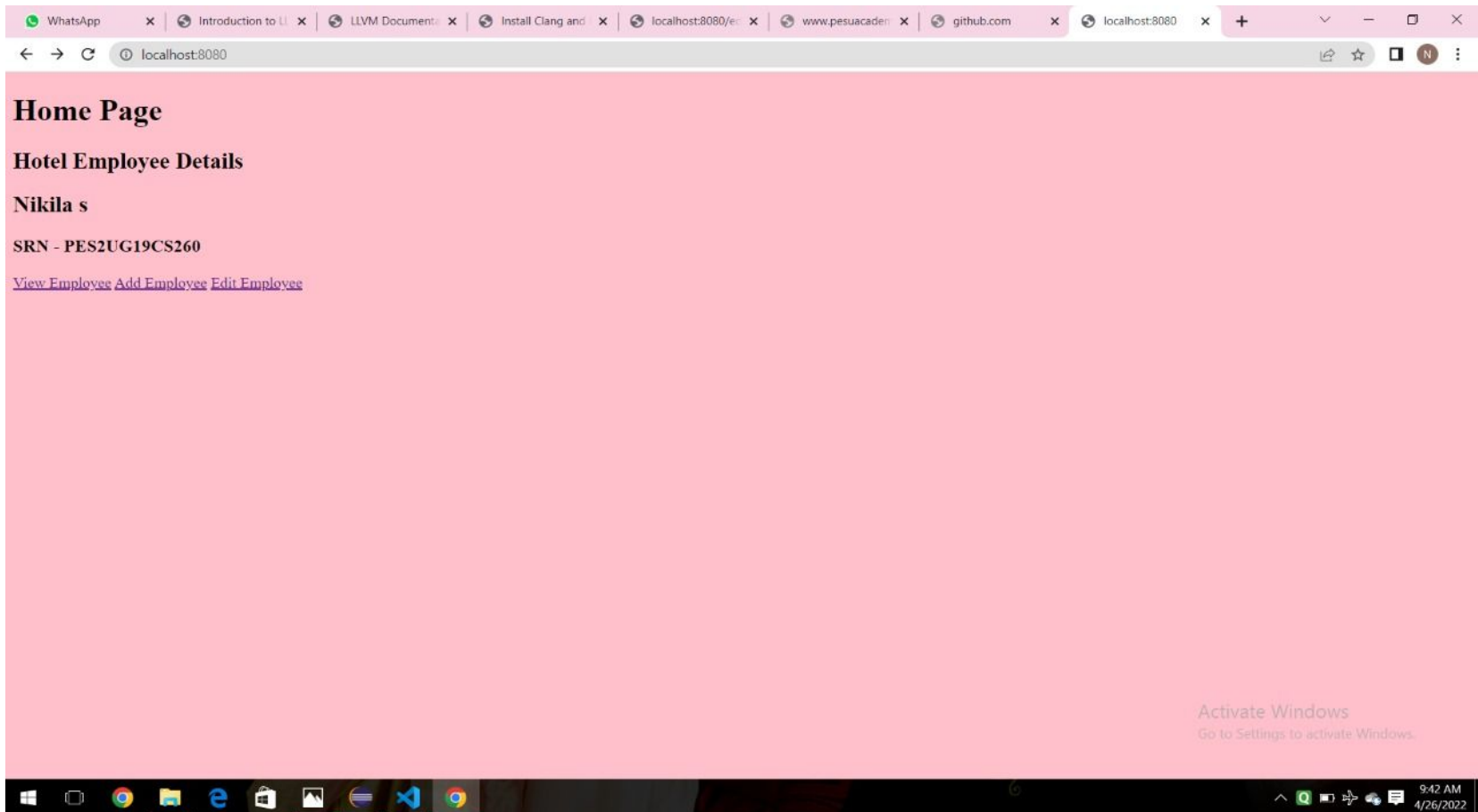
[View Room](#) [Add Room](#) [Edit Room](#)

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Screenshots



Employee MVC



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Team member contributions

NAME	CONTRIBUTIONS
Minal H R	Room MVC
Nidhi Gupta	Customer MVC
Nikila S	Employee MVC