Unified Modeling Language(UML)

for

Online Smart Parking system (website)

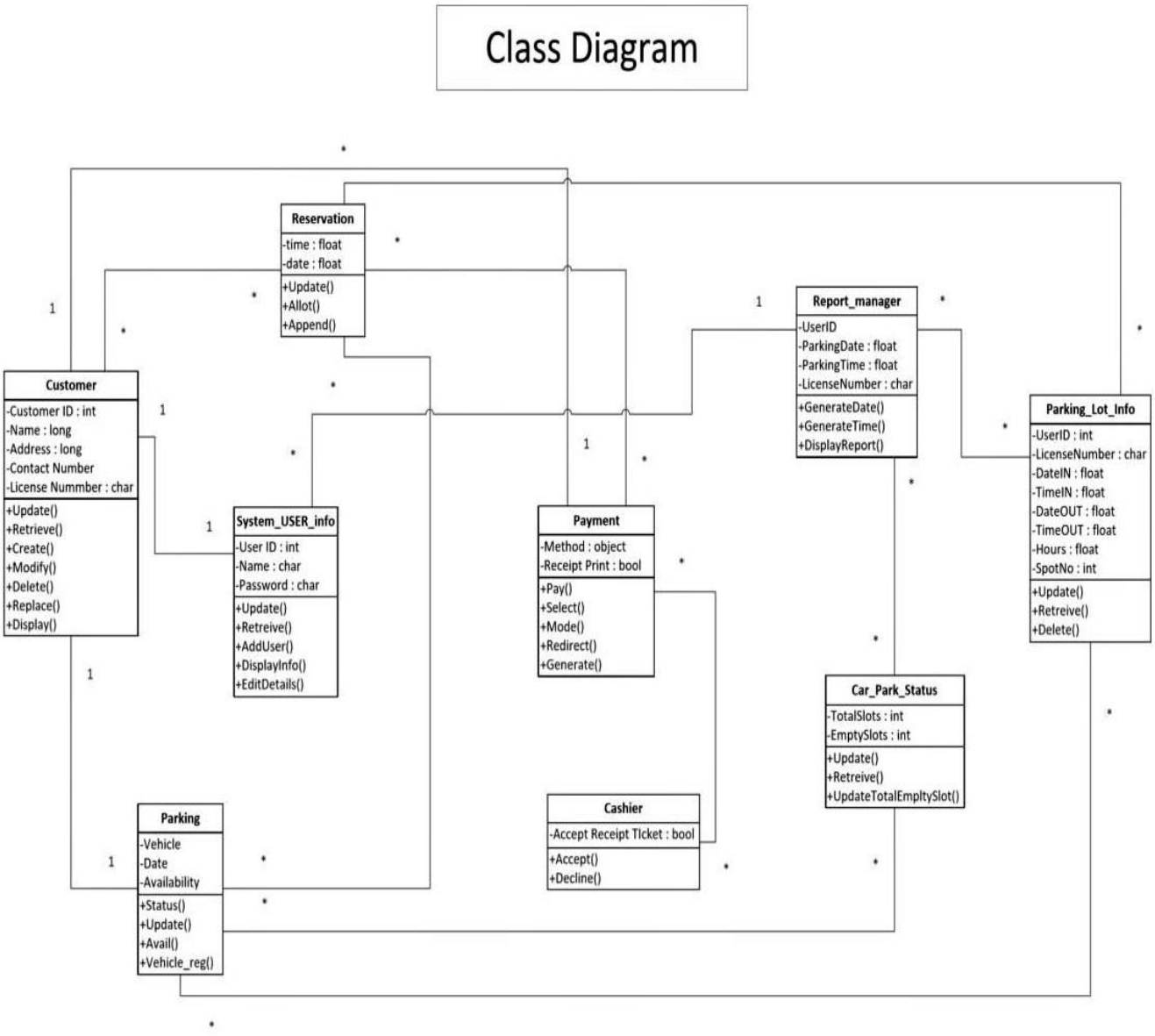
Table of Contents

Table of Contents

Structure Diagrams

1. Class Diagram:

Describes the structure of a system by showing the online parking system's classes, their attributes, and the relationships among the classes.

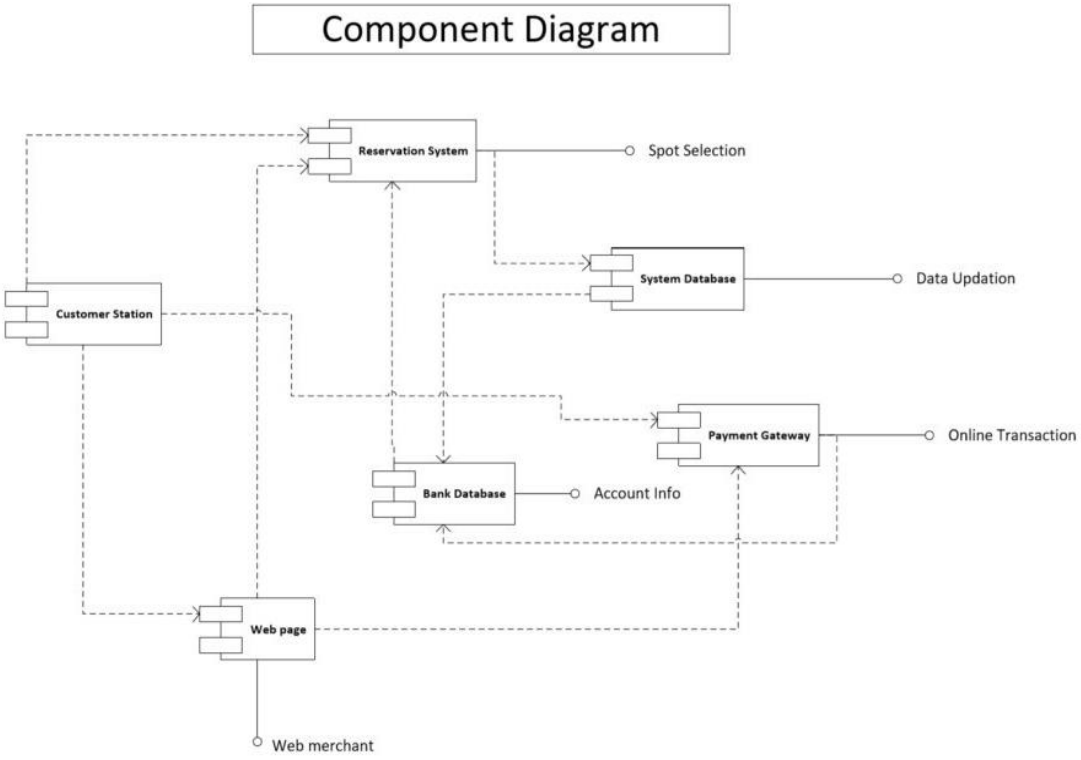


2. Component Diagram

Describes how a software system is split-up into components and shows the dependencies among these components.

Components found :Reservation system,system database,payment gateway,customer side,bank database,system database.

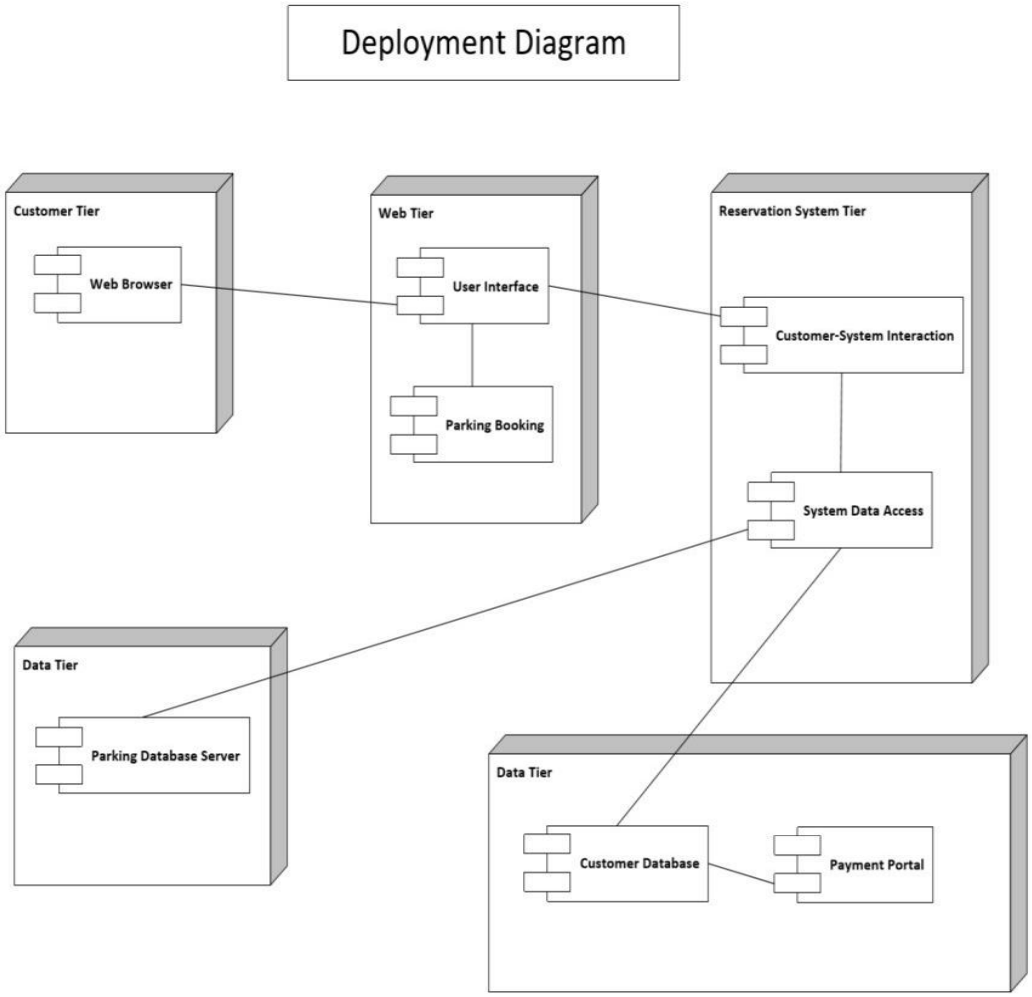
The dependencies are shown by the connections of these components(by arrows).



3. Deployment Diagram

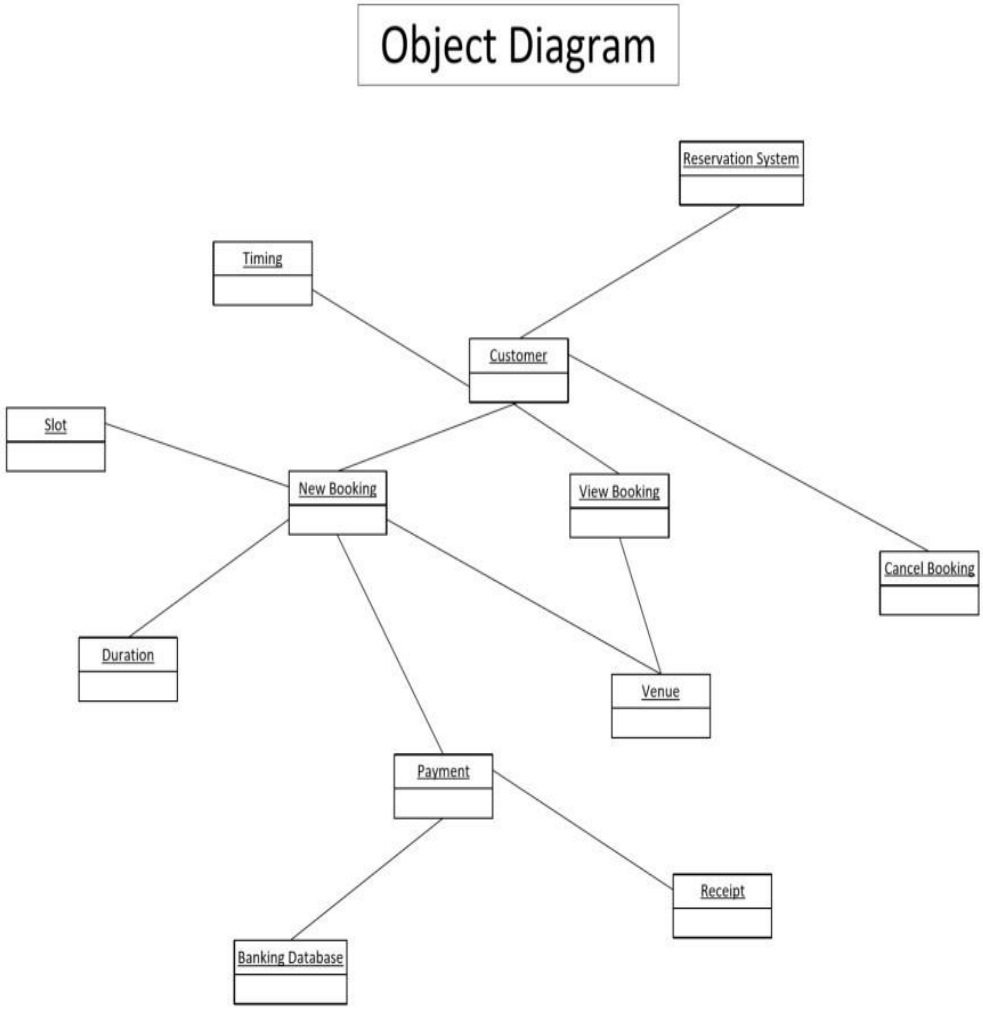
Describes the hardware used in system implementations and the execution environments and artifacts deployed on the hardware.

Hardware: bank server and system servers.



4. Object Diagram

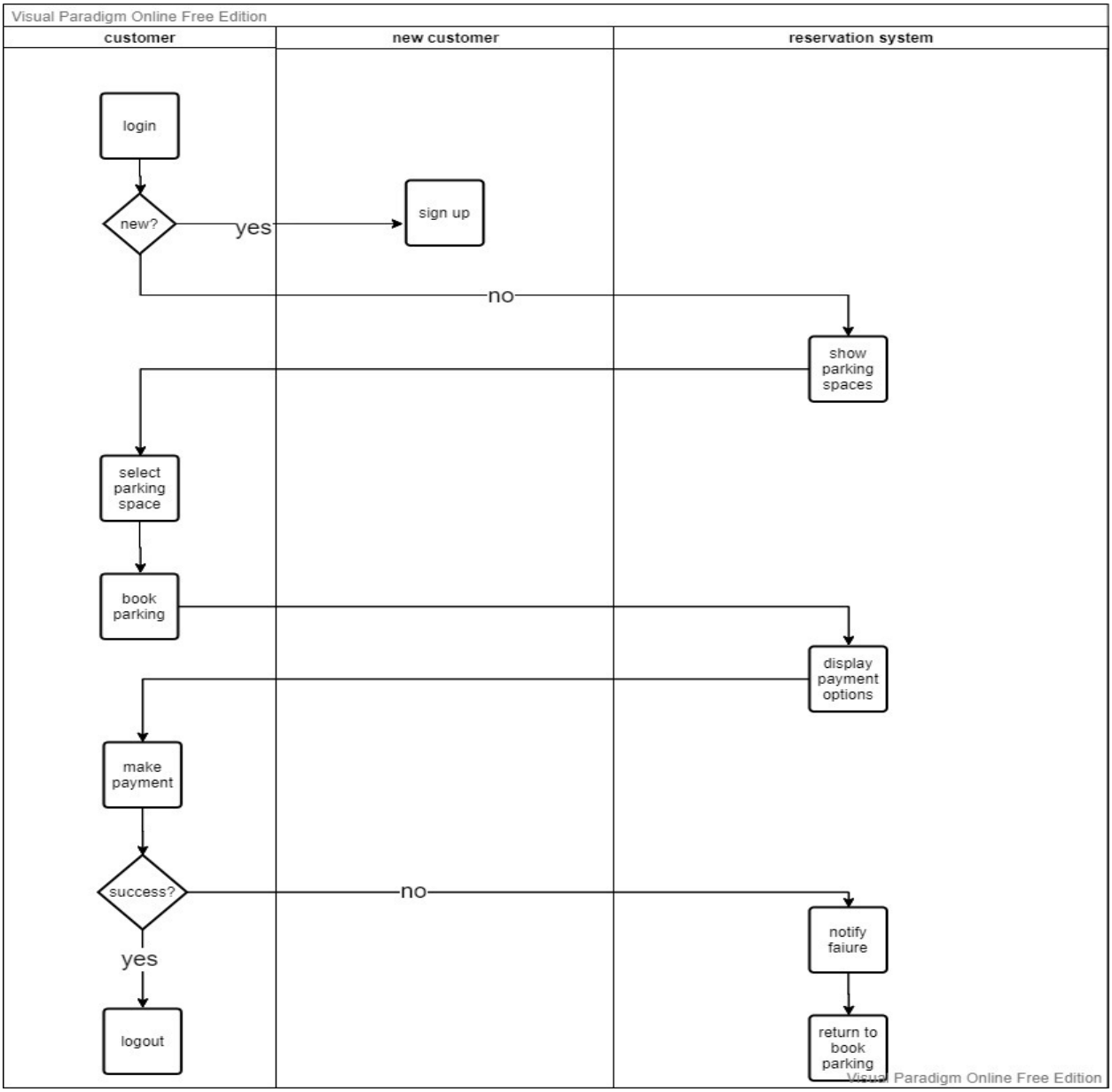
Shows a complete or partial view of the structure of an example modeled system at a specific time.



Behavior Diagrams

1. Activity Diagram

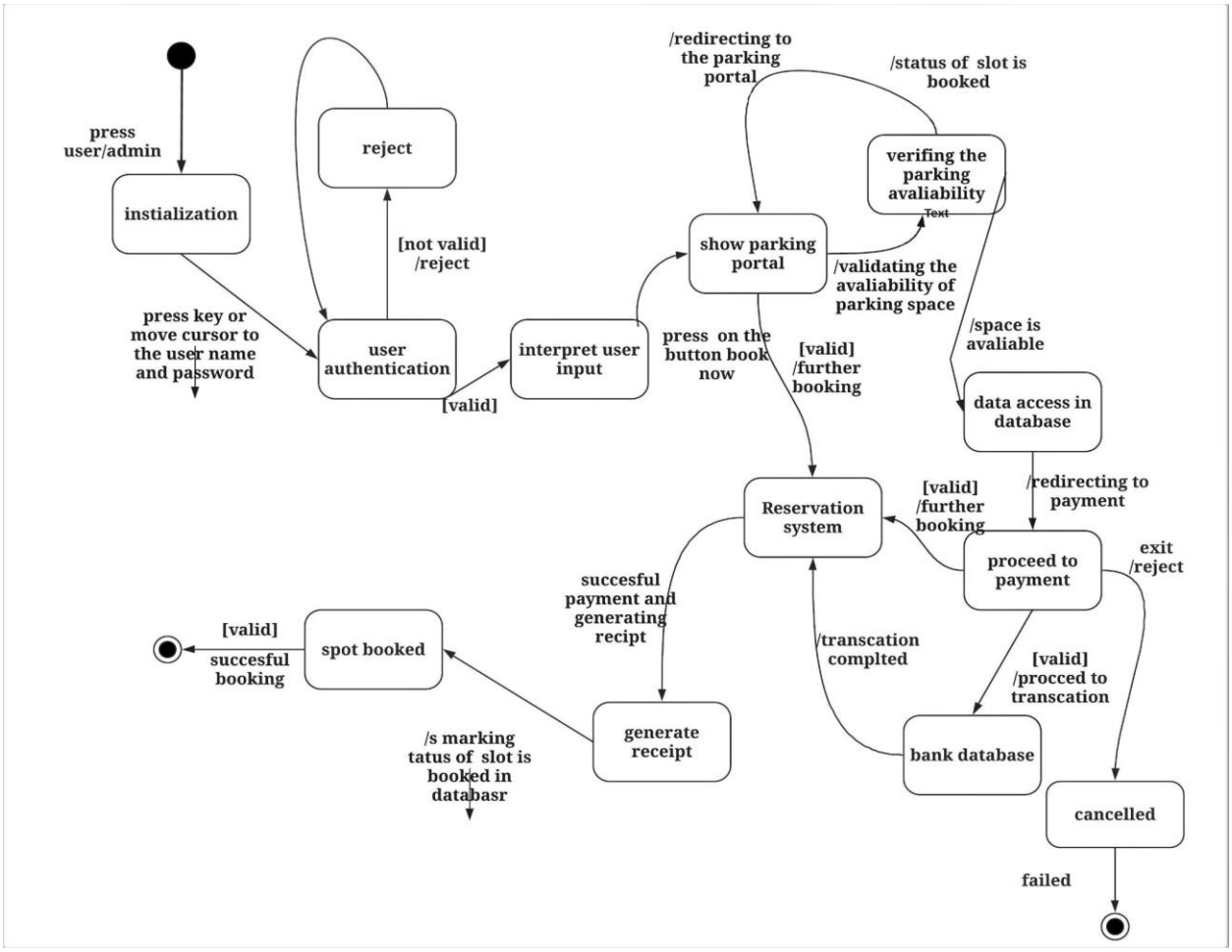
Describes the business and operational step-by-step workflows of components in a system. An activity diagram shows the overall flow of control.



2. State Machine Diagram

Describes the states and state transitions of the system.

Each stage in the process of booking(either by customer or by admin) is represented by states and the successive stages are linked by these state transitions.

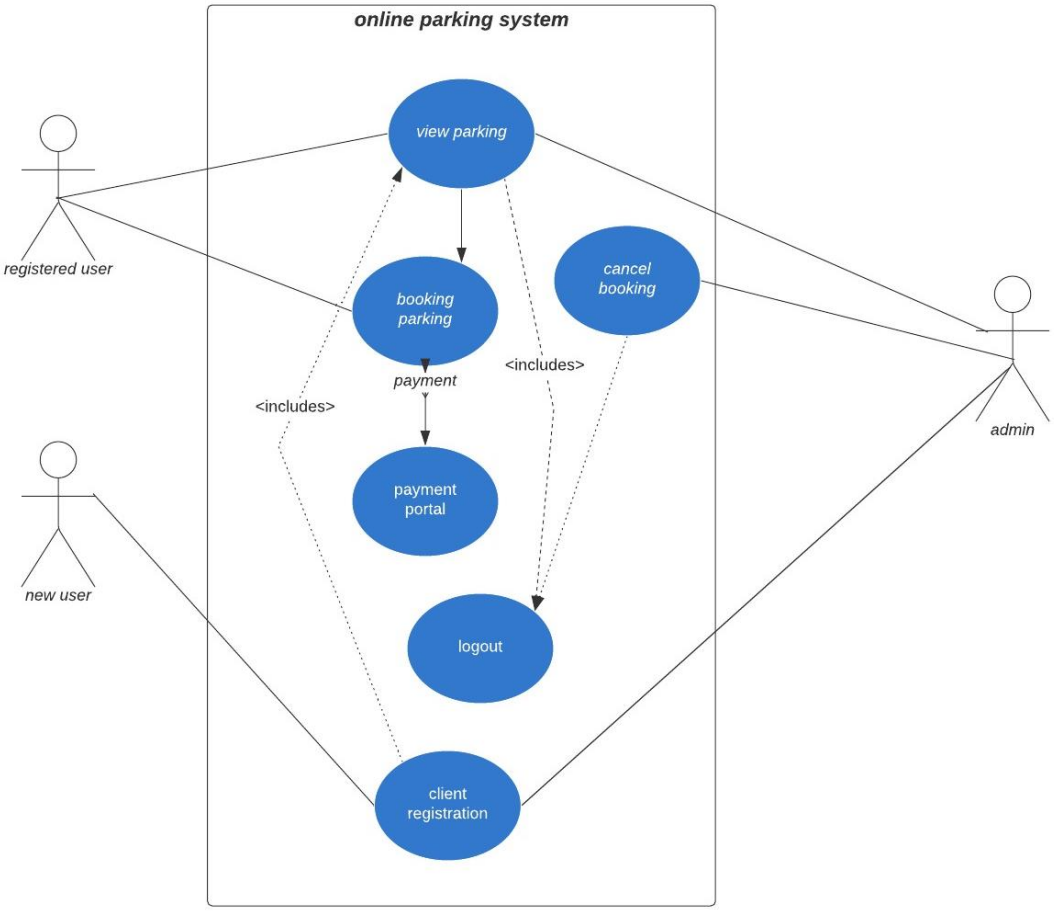


3. Use Case Diagram

Describes the functionality provided by a system in terms of actors, their goals represented as use cases, and any dependencies among those use cases.

Actors:registered user,new user and administrator

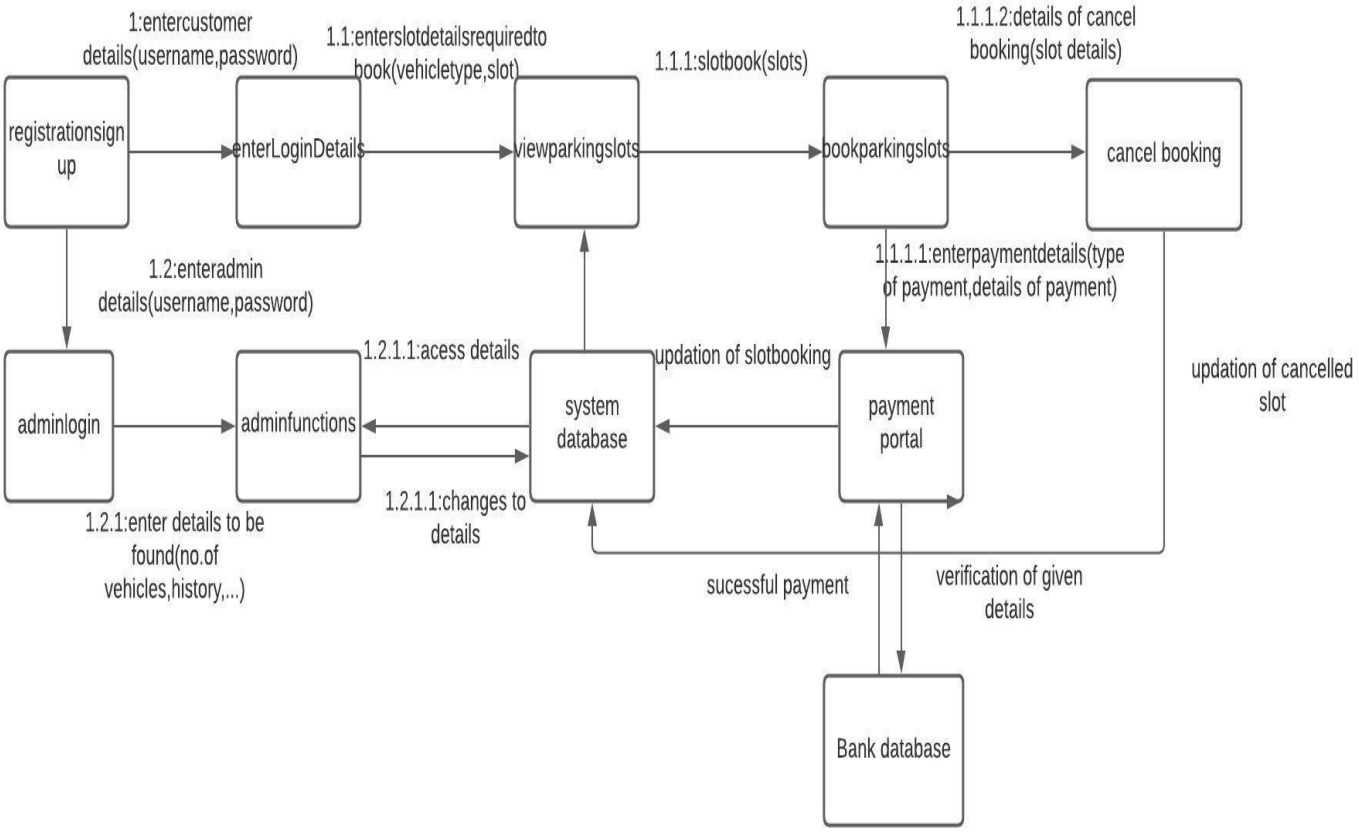
Goals and dependencies are the functionalities of respective actors(represented by use cases).



Interaction Diagrams

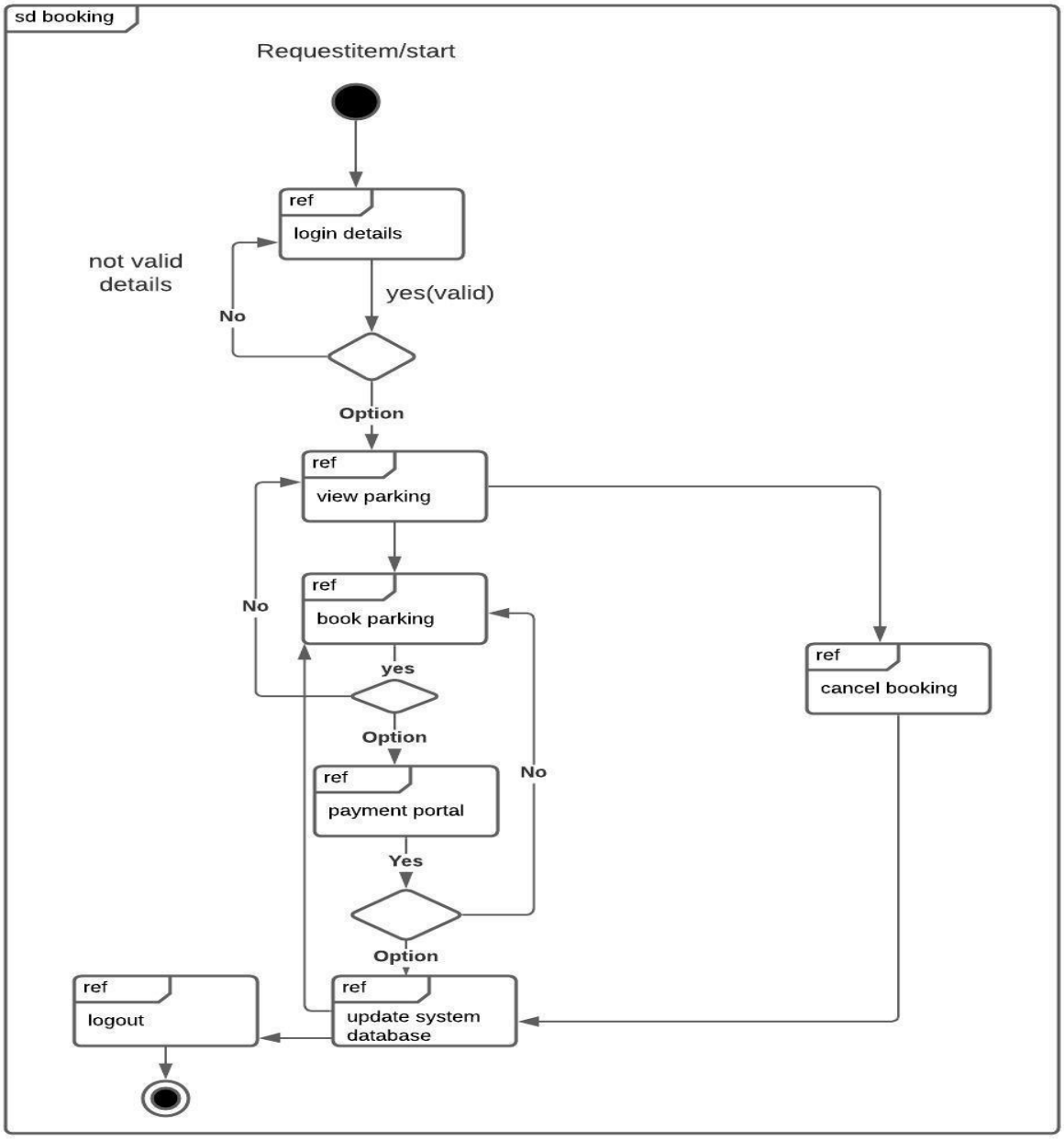
1. Communication Diagram

Shows the interactions between objects or parts in terms of sequenced messages. They represent a combination of information taken from Class, Sequence, and Use Case Diagrams describing both the static structure and dynamic behavior of a system.



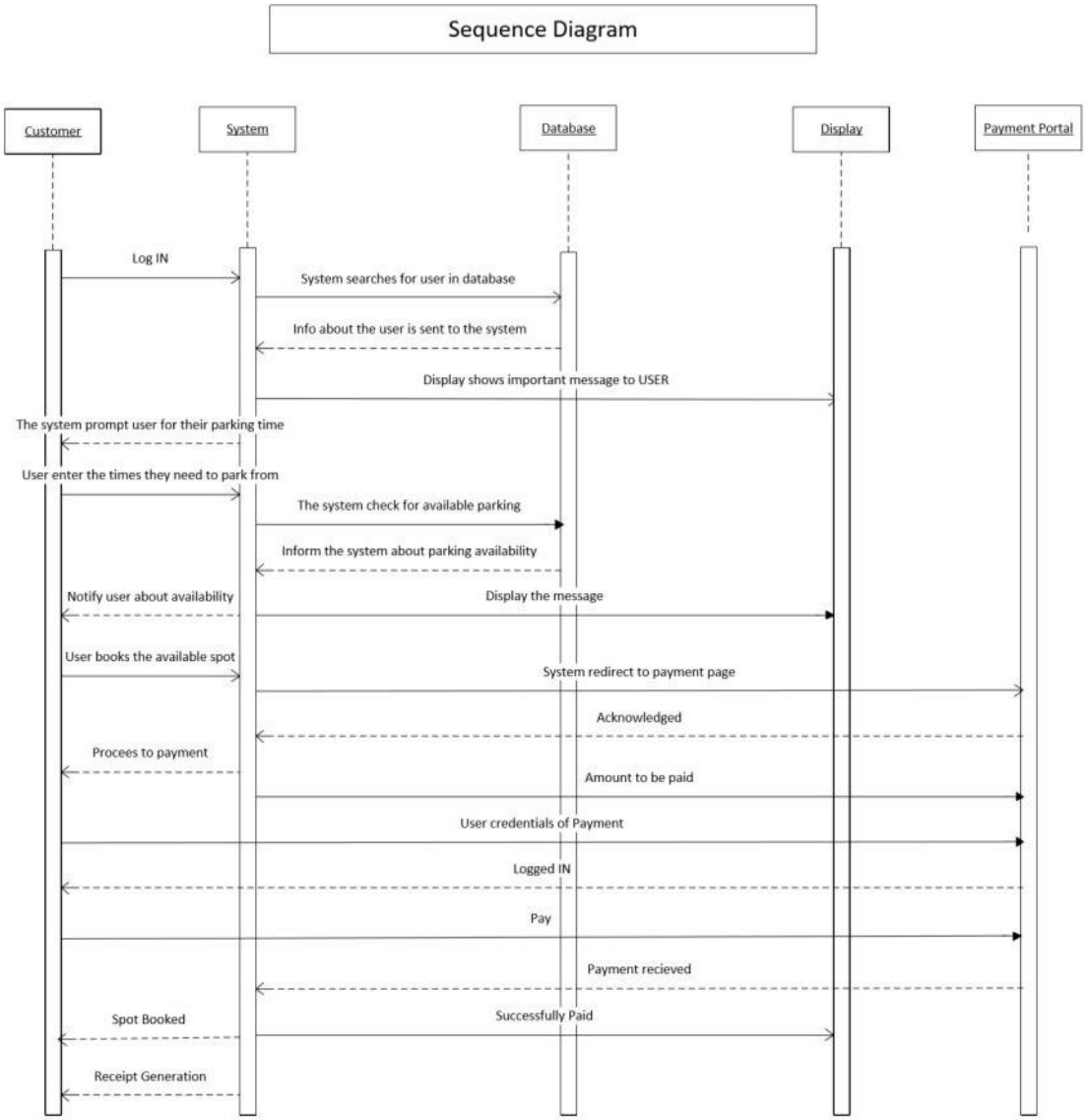
2. Interaction Overview Diagram

Provides an overview in which the nodes represent communication diagrams. They are activity diagrams in which every node, instead of being an activity, is a rectangular frame containing an interaction diagram (i.e., a communication, interaction overview, sequence, or UML timing diagram).



3. Sequence Diagram

Shows how objects communicate with each other in terms of a sequence of messages. Also indicates the lifespans of objects relative to those messages. **(each stage from login to logout is clearly represented in form of a sequence).**



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http://www.uml.org -- The official UML Web site.

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Modeller, an open source UML modeling tool for KDE.