PUNE INSTITUTE OF COMPUTER TECHNOLOGY,
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A Mini-Project Report
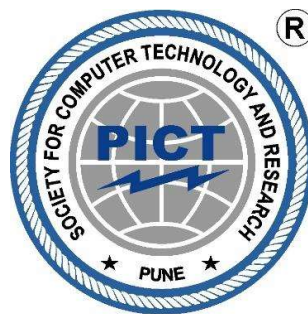# On
Ticket Reservation System (UML Diagrams)

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UML Diagrams for College Management System

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1 PROBLEM STATEMENT:

Draw all UML diagrams for your project work.

2 ABSTRACT:

An online ticket booking system is a software that allows potential customers to book and pay for a flight or train ticket directly through the website. That means that all stages of booking from choosing a destination to paying for the reservation, are handled online that significantly reduces the staff workload and eliminates double-bookings.

UML is a standard language for specifying, visualizing, constructing, and documenting the artifacts of software systems. UML is not a programming language but tools can be used to generate code in various languages using UML diagrams. UML has a direct relation with object oriented analysis and design. After some standardization, UML has become an OMG standard.

UML Diagram for Ticket Reservation System specifies about various activities that usually are carried out in the application detailed information is given in the following part of the document.

3 REQUIREMENTS:

Hardware Requirements:-

a. Laptop with 8 GB RAM
b. Intel core i5 processor

Software Requirements:-

a. Latest version of the Google browser

b. Creately (online platform to draw UML diagrams)

4 INTRODUCTION:

UML (Unified Modeling Language) is a general purpose modeling language which was adopted as a standard in 1997. UML is not exactly a programming language, but a visual language. It helps in visualizing a system's design using a set of conventions and rules.

- UML helps businesses, architects and engineers for

  - Modeling

  - Design

  - Analysis

- Need for UML -

  - Complex applications necessitate collaboration and planning from multiple teams, entailing a clear and concise means of communication among them.

  - Code is not understood by businesspeople. As a result, UML becomes essential for communicating the system's essential requirements, functionalities, and processes to non-programmers.

  - When teams can visualize processes, user interactions, and the system's static structure, they save a lot of time in the long run.

Diagrams:

(i) Use case diagram
Use Case Diagrams depict the functionality of a system or a component of a system. They are commonly used to demonstrate the system's functional requirements and interaction with external agents (actors). A use case is essentially a diagram that represents various scenarios in which the system can be used. A use case diagram provides a high-level overview of what the system or a component of the system does without delving into implementation details.

(ii) ER diagram
ER Diagram stands for Entity Relationship Diagram, also known as ERD is a diagram that displays the relationship of entity sets stored in a database. In other words, ER diagrams help to explain the logical structure of databases. ER diagrams are created based on three basic concepts: entities, attributes and relationships.

(iii) Sequence diagram
A sequence diagram simply depicts object interactions in a sequential order, i.e. the order in which these interactions occur. A sequence diagram can also be referred to using the terms event diagrams or event scenarios. Sequence diagrams show how and in what order objects in a system work. Businesspeople and software developers frequently use these diagrams to document and understand requirements for new and existing systems.
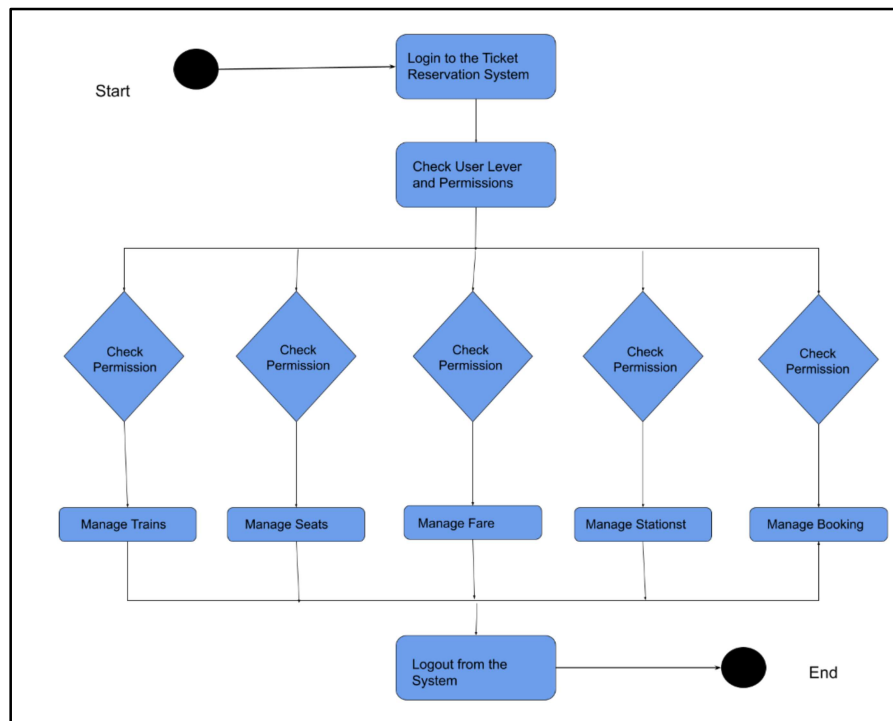
(iv)Activity Diagram
Activity diagram is another important diagram in UML to describe the dynamic aspects of the system. Activity diagram is basically a flowchart to represent the flow from one activity to another activity. The activity can be described as an operation of the system. The control flow is drawn from one operation to another. This flow can be sequential, branched, or concurrent.

Activity diagrams deal with all type of flow control by using different elements such as fork, join, etc.

5 OBJECTIVE:

Use UML diagram concept to create various types of diagrams for Ticket Reservation System

6 RESULT

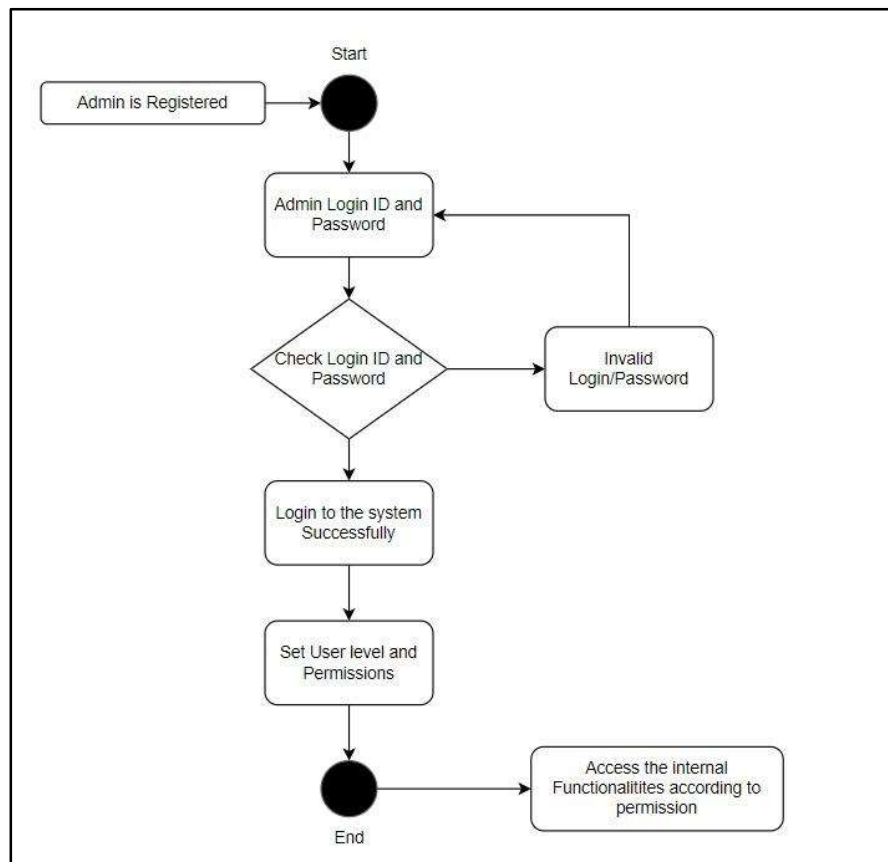
Figure 1: Activity Diagram for Ticket Reservation System

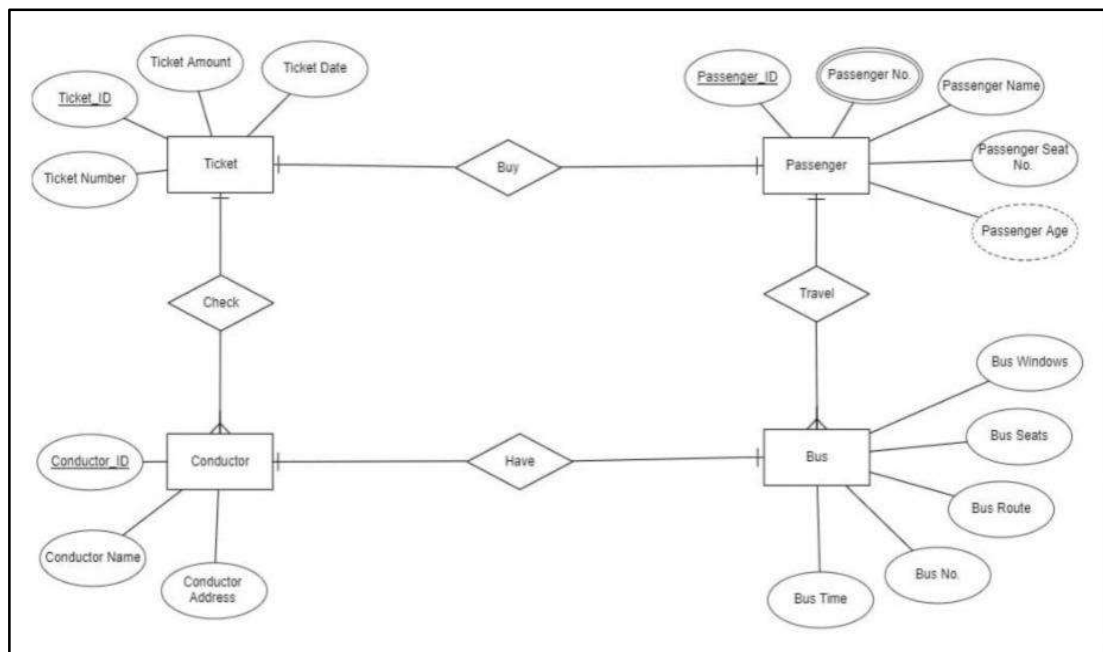*Figure 2: Login Activity Flowchart*

Figure 3: ER Diagram
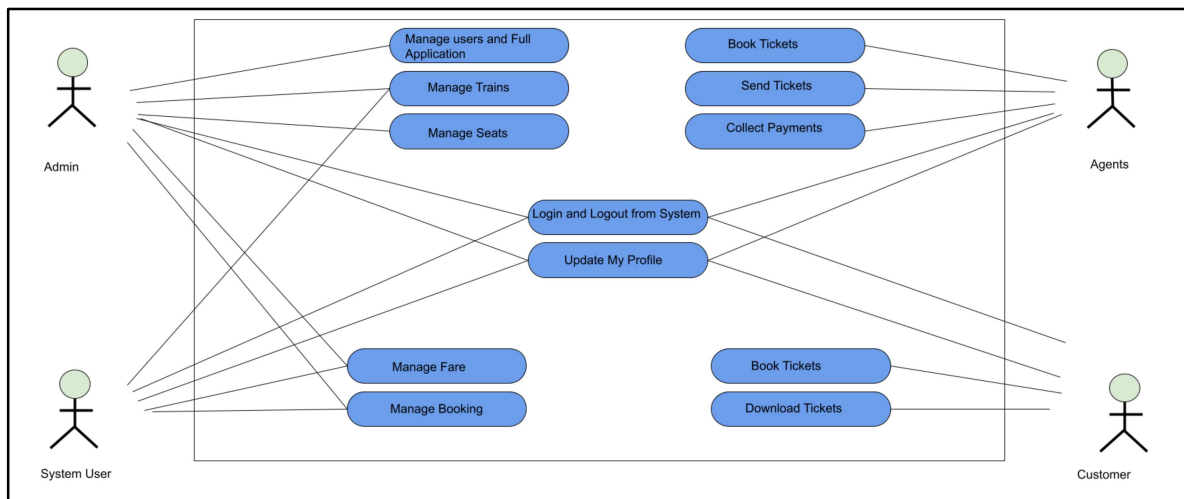
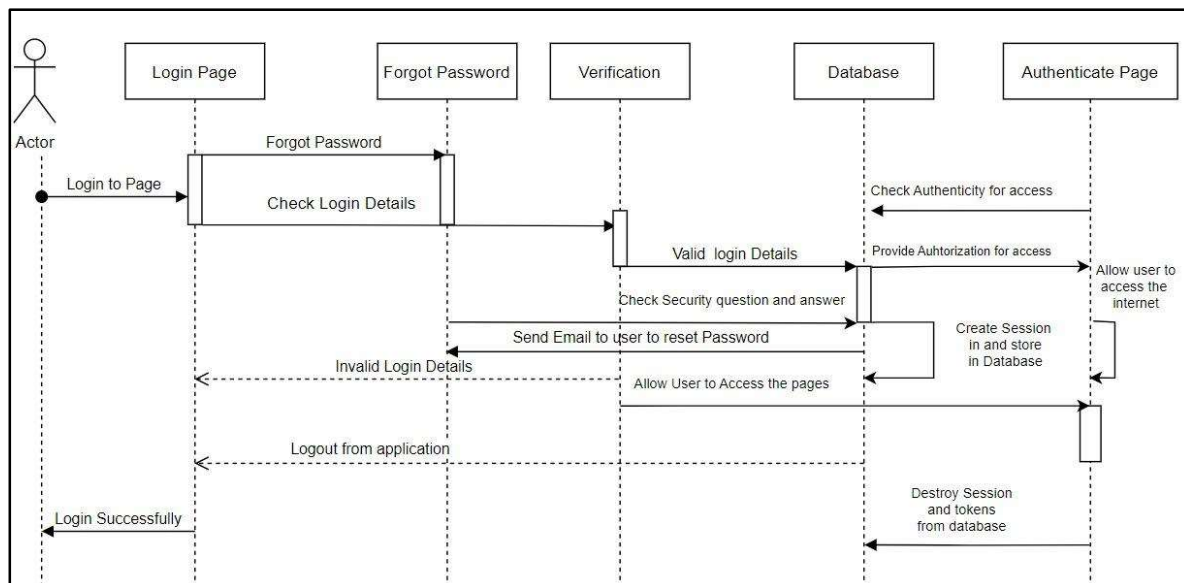Pune Institute of Computer Technology

Figure 4: Use Case Diagram

Figure 5: Sequence Diagram for Ticket Reservation System

7 CONCLUSION:

In this way we have created UML diagrams for Ticket Reservation System