A PROJECT ON

ONLINE RAILWAY RESERVATION SYSTEM

PROJECT BY

Miss. Ashwini Biradar

Miss. Prajakta Tingre

FOR

T.Y.B.Sc.(Computer Science)

MIT ARTS, COMMERCE & SCIENCE COLLEGE

ALANDI, DIST-PUNE-412105.

YEAR 2018-2019

CERIFICATE

Department of Computer Science

This is to certify that the project entitled "ONLINE RAILWAY RESERVATION SYSTEM" submitted by

Miss. Ashwini Biradar and Miss. Prajakta Tingre student of T.Y.BSc (Computer Science) examination of University of Pune.

It is original software carried out under the supervision & guidance of Prof. Mandar Parale and undergoes for the project work.

Date:

Prof. Mandar Parale	Mrs. Rashmi Lad
Project Guide	Head of the Dep.

INTERNAL EXAMINATION EXTERNAL EXAMINER

DECLARATION

I hereby declared that the project entitled "ONLINE RAILWAY RESERVATION SYSTEM" which is concern about various facilities.

1. Include information about trains.
2. Include information about passengers with date.
3. Useful for quick reservation.
4. Proposed system in menu driven.
5. Reduce manual handling and minimize the error.

As far as I know this project has not been carried out by anybody else in the partial fulfillment of syllabus T.Y.BSc (Comp.Sci.) Course.

Projectee:

1. Ashwini Biradar

2. Prajakta Tingre

ACKNOWLEDGEMENT

It is event of great pleasure in submitting this report emitted "ONLINE RAILWAY RESERVATION SYSTEM".

I extend our sincere and heartfelt thanks to our esteemed guide, Prof. Mandar Parale for providing me the right guidance and advice, which helps me to take up the responsibilities with courage and determination.

I extend our sincere thanks to our respected head of the department Mrs. Rashmi Lad, for guidance and facility for the report.

Projectee:

1. Ashwini Biradar

2. Prajakta Tingre

INDEX

INTRODUCTION

In today's fast improving world computers have become a part of all over the world. The project "Online Railway Reservation Management System" is being proposed for booking the train tickets in computerized. This system will provide a user account for every user. The user can create for login the system and booking any train tickets very quickly. Passenger can get the print-out of the tickets and know the status of the booking.

The administrator should have the ability to perform operation like add a new train, modify the tickets costs and update a particular train. The administrator also has the privilege to view the reports of all the passengers.

This system will handle the following details:-

1. User details
2. Train details
3. E-Ticket booking
4. Generating Reports

This system uses the well known resource. Where there is no need of any special kind of resource. It uses only the required database.

PROBLEM DEFINITION

The main objective of railway reservation project is to maintain the records of train details so that it could be easy for updating the reservation details. The train details consist of train name, train no, source and destination to be reached, number of seats available. The reservation details consist of passengers, name, age, sex, destination to be reached by them, ticket numbers, and seat number.

❖ Problem of existing system:

1. The existing system is manual so various details of the passenger, train, ticket and other information need to be maintained using manual records.

2. The existing system is very much time consuming.

3. As the existing system is manual it has more chances of human errors.

4. More manpower is required to maintain the system.

5. Searching of a particular record is a tedious task, because we have to search each and every entry in the record.

NEED OF THE COMPUTERIZATION

The main objective of system is to provide a useful interface which will reduce the user. The user can do many tasks in one whole system. This increases the probability of the system as for each activity the information is going to be stored in the system, so that we can keep track of user and help in developing passenger relationship. Using this system the admin can witness the benefits which he can gain only at the work place using the existing system and the client can checks the book of his respective train ticket.

The system includes the applications that are helpful to the passenger in many different ways. The different applications used in system are:

1. Managing the Website along with the administrative work.

2. Add Collection to the website by the admin on arrival of a new one.

3. Password for securing the data and prevent unauthorized access.

4. It also displays information about all train, all Schemes.

5. It has the ADD, REMOVE or UPDATE features for all the different construction like train, passenger etc.

6. Managing all tickets using database.

7. Passenger queries can be handled in a very secured manner with a randomly generated Unique Query number.

Thus the system shows us different ways to perform tasks with less effort and trouble and securing the data.

SCOPE OF SYSTEM

This system is helpful for the operations performed by the user. The system is computer applications software which allows the user to get the things done very easily and with less effort and also ensures the security of the data. Thus, the scope of the system tells us about the striking features of the system.

1. Extensibility

This software is extensible in ways that its original developers may not except. The following principles enhance extensibility like hide data structure, avoid traversing multiple links or methods, avoid case statements on object type and distinguish public and private operation.

2. Reusability

Reusability is possible as and when require in this application. Reusable software reduces designs, coding and testing cost by amortizing effort over several designs. Reducing the amount of code also simplifies understanding, which increases the likelihood that the code is correct.

3. Understandability:

A method is understandable if someone other than the creator of the method can understand the code (as well as the creator after a time lapse). We use the method, which small and coherent helps to accomplish this.

4. Cost-effectiveness:

Its cost is under the budget and make within given time period. It is desirable to aim for a system with a minimum cost.

OBJECTIVE OF THE SYSTEM

Every system is design to achieve one or more objectives; the main objective of this system is to overcome some problems that come during existing system.

1. The main objective is to provide security, authority conclusion and further privacy and also any unauthorized person cannot destroy or get information from the system.

2. Using computer software, adding new records, saving records, making modifications on the record is quickly possible. There is no loss of data.

3. The system is a user friendly application.

4. The system is very helpful in performing multiple tasks at the same time without any wastage of time along with security of data.

5. It is less time consuming and fast as the system is computerized.

6. It saves the labor cost.

7. Efficient monitoring and control on activities.

8. Lots of paper work and storage space is saved.

9. The system is very robust.

10. The system has powerful validation and checking appropriate message are generated wherever necessary.

11. Less operating cost and less maintaining cost.

12. Less possibilities of human error.

13. System is very easy to use which will improve the system efficiency.

SYSTEM ANALYSIS

Fact Finding Techniques:

We used four fact finding techniques in our system analysis.

1. Questionnaires
2. Interviews
3. Record Views
4. Observation

Questionnaires:

We used this technique in the initial phase and final phase of our project. In the initial phases we prepared questionnaires to get some basic information about the current system. We could find out the work structure of the organization and is its functioning. In the final stage we used the questionnaires to get some new numerical data's that was missing after all the observations. Questions asked wear both open ended and closed ended. Which were related to user interactions with current system. Updating and rules for records maintenance, report generated by current system, complications in the system, complications in the system as per user.

1. How to maintain the record.
2. How to maintain the information of customer.
3. How to maintain about the admin and passenger.
4. Is there any existing system or not.

Interviews:

We used this techniques frequency in the system after questionnaires. The interviews were unstructured. We choose some people in the organization who were either the decision makers or operators or user in some activity related with the project. This helped us to undeclared all the steps involved in the activity.

Records Review:

This was the most beneficial technique for us while making our database. We studied the existing file structure, documents used and generated in the organization. For every individual piece of information in this files or register we tried to identify its significance, needs, relational with our data items and any other features. This process contributed the most, in getting the data in the first normal form.

Observation:

While finding the facts we keenly observed all the activities in the organization. We paid attention to the transaction usage of file and document, the records keeping and the handling of queries in the existing system. Observation helped us in finding out actual way of functioning apart from the ideal or desired.

Feasibility study:

This very important state because on the basis of this system decision is taken on whether to proceed or to postpone and cancel the project needs.

There are the types of feasibility study

1. Technical feasibility
2. Operational feasibility
3. Economical feasibility

Technical Feasibility:

This system has HTML as the front end the hardware and software requirement are feasibility always and focus on the existing computer hardware, software and personal requirements, the technical feasibility also includes the need for more hardware and software and the possibility of producing such facility.

Operational Feasibility:

It consists the capability of the system, it checks whether system will be used if it is developed and implemented, are the user capable to handle the system, whether the proposed system caused any trouble etc., for this purpose it checks, investigation cost, software's and hardware's training cost, salaries maintenance cost etc.

Economical Feasibility:

It considers the cost/benefit analysis of the proposed system. The benefit is always expected to the overweighing the cost.

Economical feasibility is helpful to find the management development cost and checks whether it is justifiable.

ADVANTAGES OF THE SYSTEM

1. The password for login helps in securing the data.
2. It helps in adding and removing programs.
3. It reduces the workload and also helps save time.
4. It displays the train information.
5. The system is a user friendly application.

HARDWARE AND SOFTWARE REQUIREMENTS

❖ Hardware Requirements:

1. PROCESSOR:
   Oracle VM virtual box.

2. RAM:
   System with at least 500MB.

3. HARD DISK:
   Minimum 70GB or ABOVE.

❖ Software Requirement:

1. OPERATING SYSTEM:
   CentOS - JP.

2. FRONT END:
   a. Java JDK 1.7
   b. JDBC
   c. JSP

3. BACK END:
   a. PgSQL

DATA DICTIONARY

Train:

Column	Data Type	Modifiers
tno	integer	Primary Key
tname	varchar(30)	Not NULL

Passenger:

Column	Data Type	Modifiers
pid	integer	Primary Key
pname	varchar(20)	Not NULL
age	varchar(3)	Not NULL
mobno	varchar(13)	Not NULL

Available Tickets:

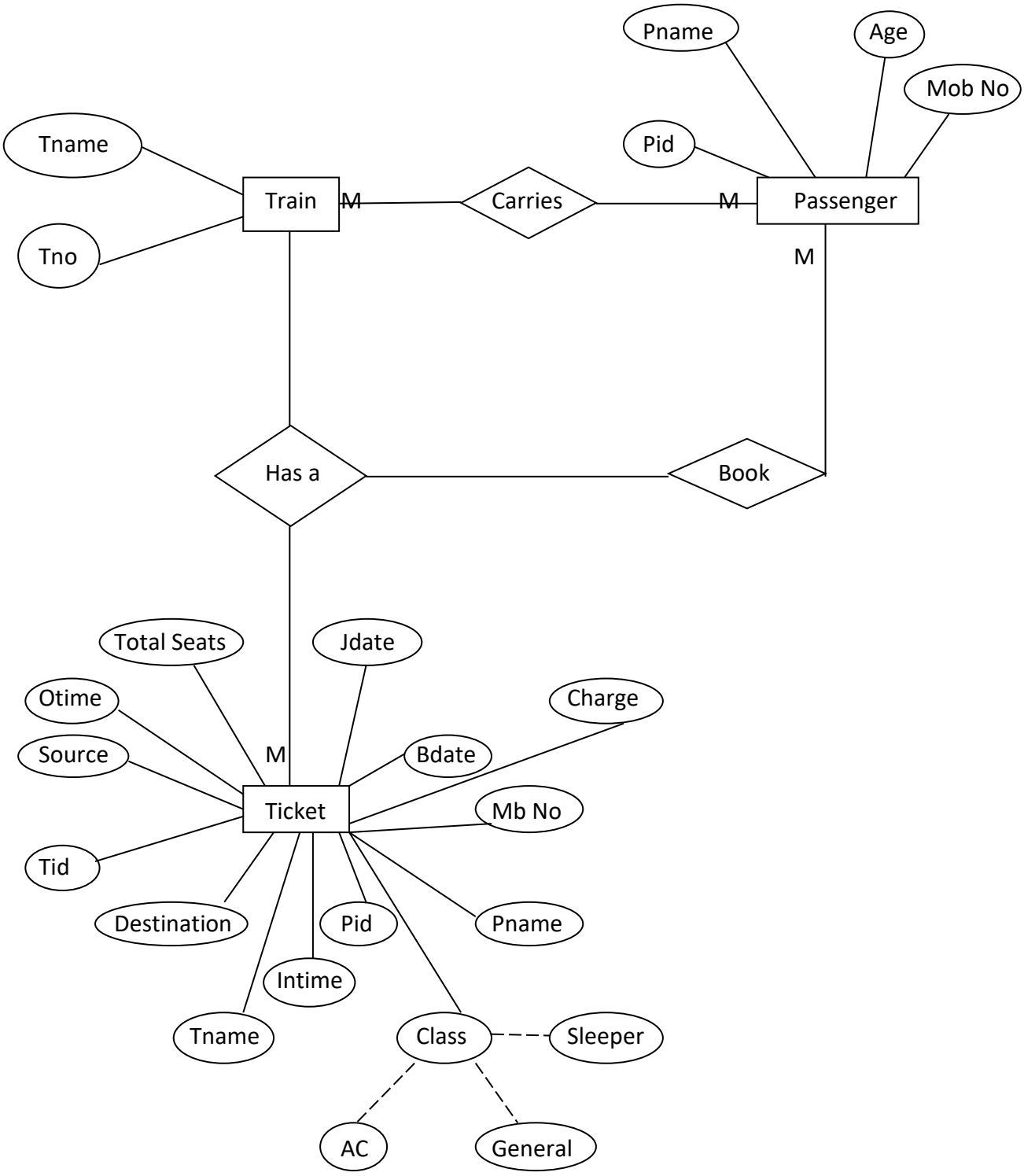
Column	Data Type	Modifiers
available	integer	Primary Key
at	integer	Not NULL
class	varchar(30)	Not NULL

Reserved Tickets:

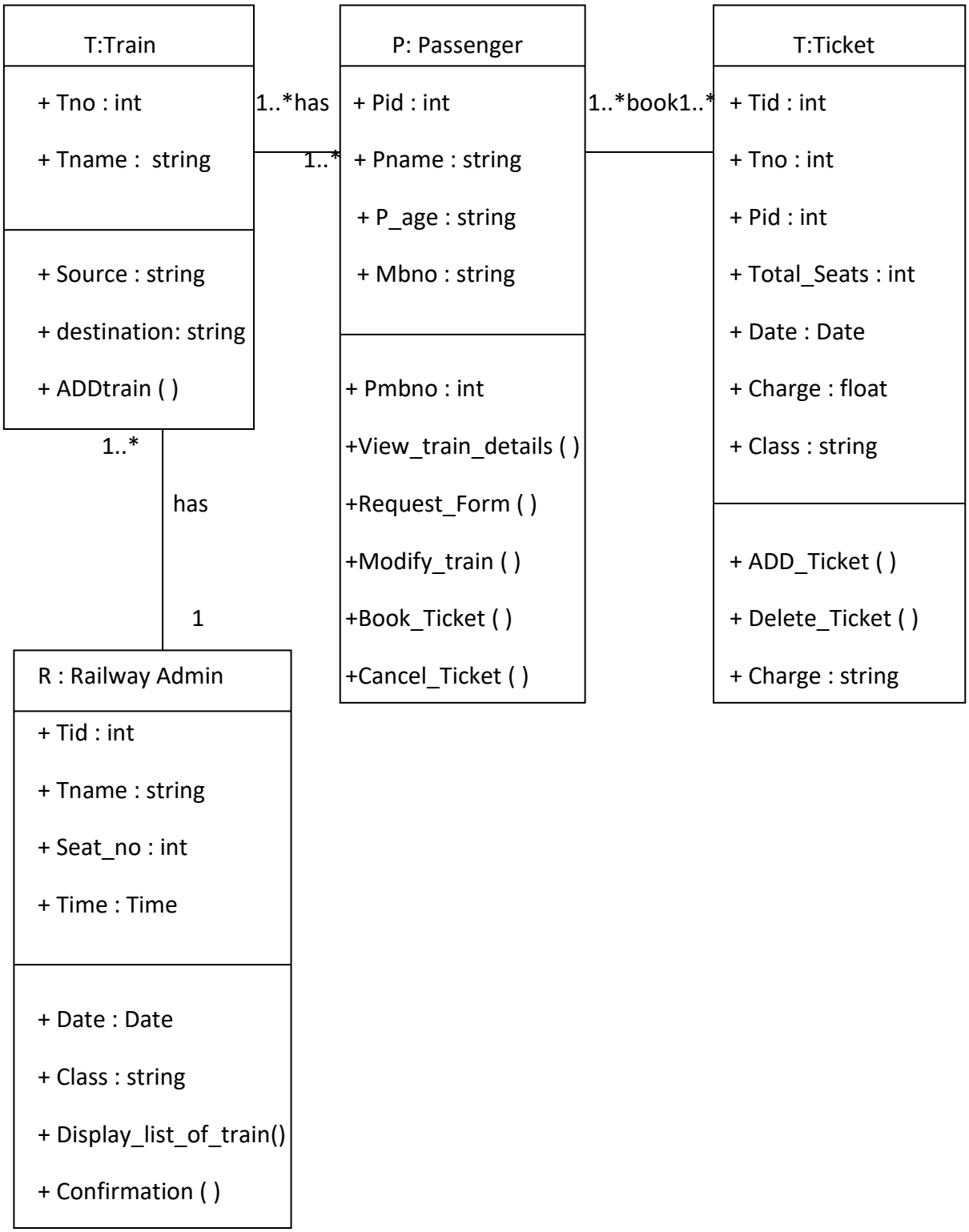
Column	Data Type	Modifiers
pid	integer	FOREIGN KEY
tid	integer	FOREIGN KEY
pname	varchar(30)	Not NULL
mobno	varchar(13)	Not NULL
bdate	varchar(10)	Not NULL
jdate	varchar(10)	Not NULL
train	varchar(20)	Not NULL
s	varchar(20)	Not NULL
d	varchar(20)	Not NULL
nt	integer	Not NULL
ch	varchar(20)	Not NULL
charge	float	Not NULL

SYSTEM DESIGN

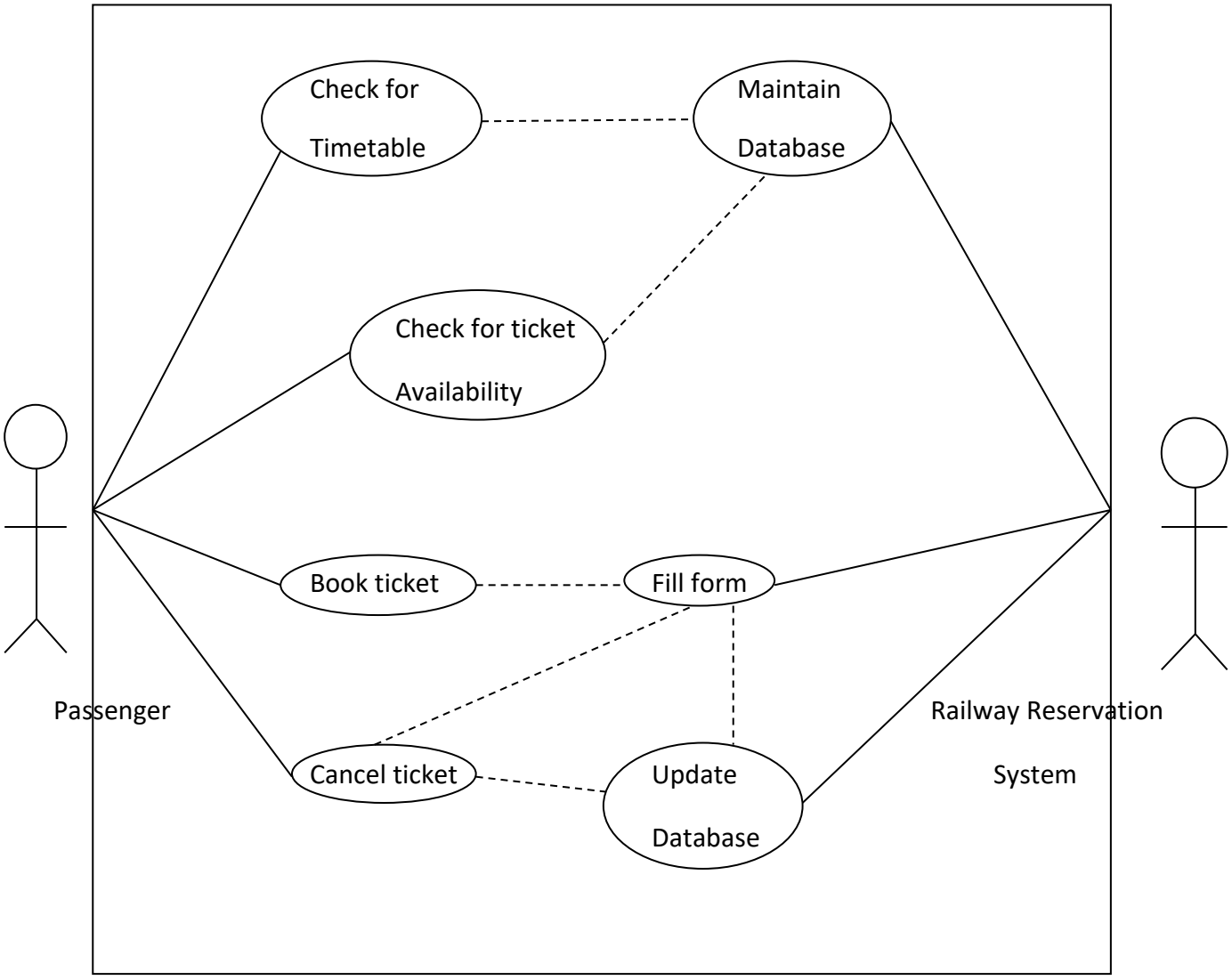
ER-DIAGRAM


Pname
Age
Mob No
Tname
Pid
Train
M
Carries
M
Passenger
Tno
M
Has a
Book
Total Seats
Jdate
Otime
Charge
Source
M
Bdate
Ticket
Mb No
Tid
Destination
Pid
Pname
Intime
Tname
Class
Sleeper
AC
General

CLASS DIAGRAM

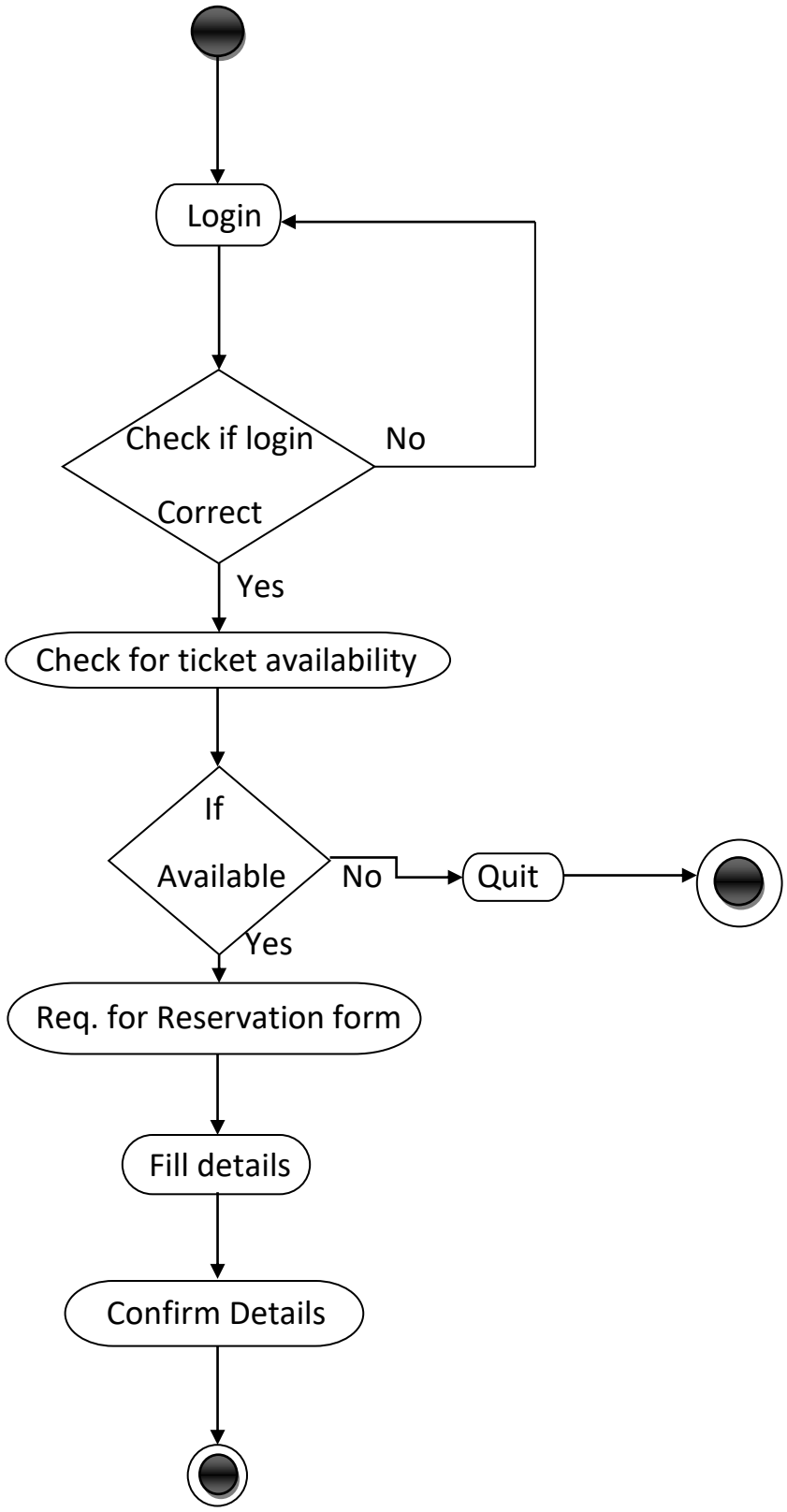


USE CASE DIAGRAM

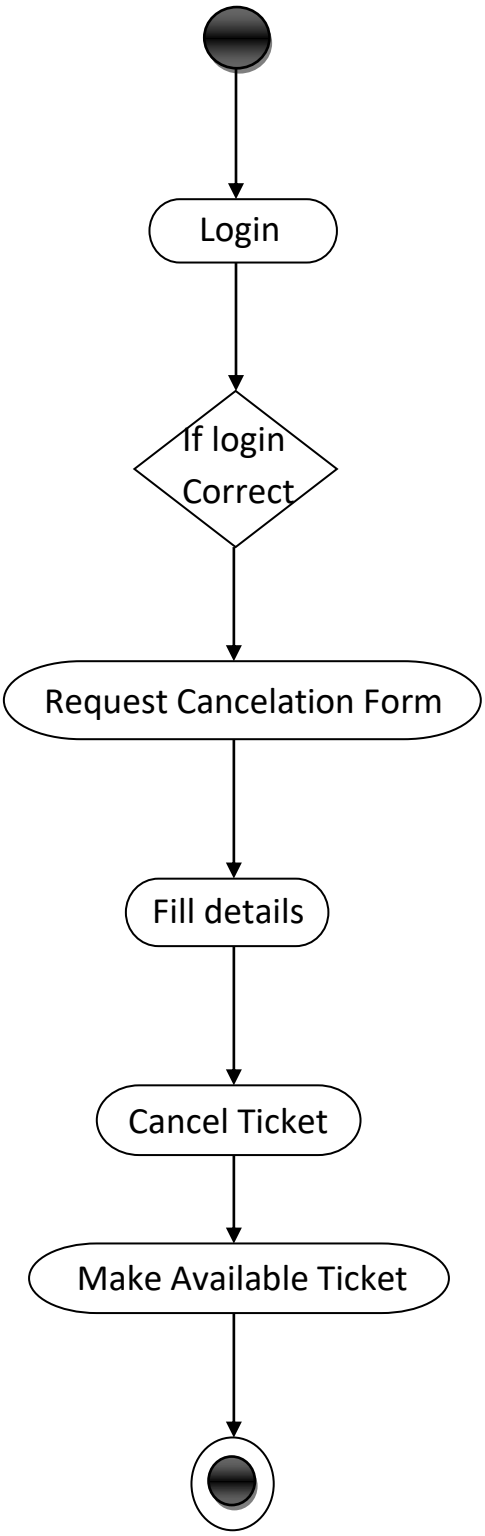


ACTIVITY DIAGRAM

❖ For Book Ticket

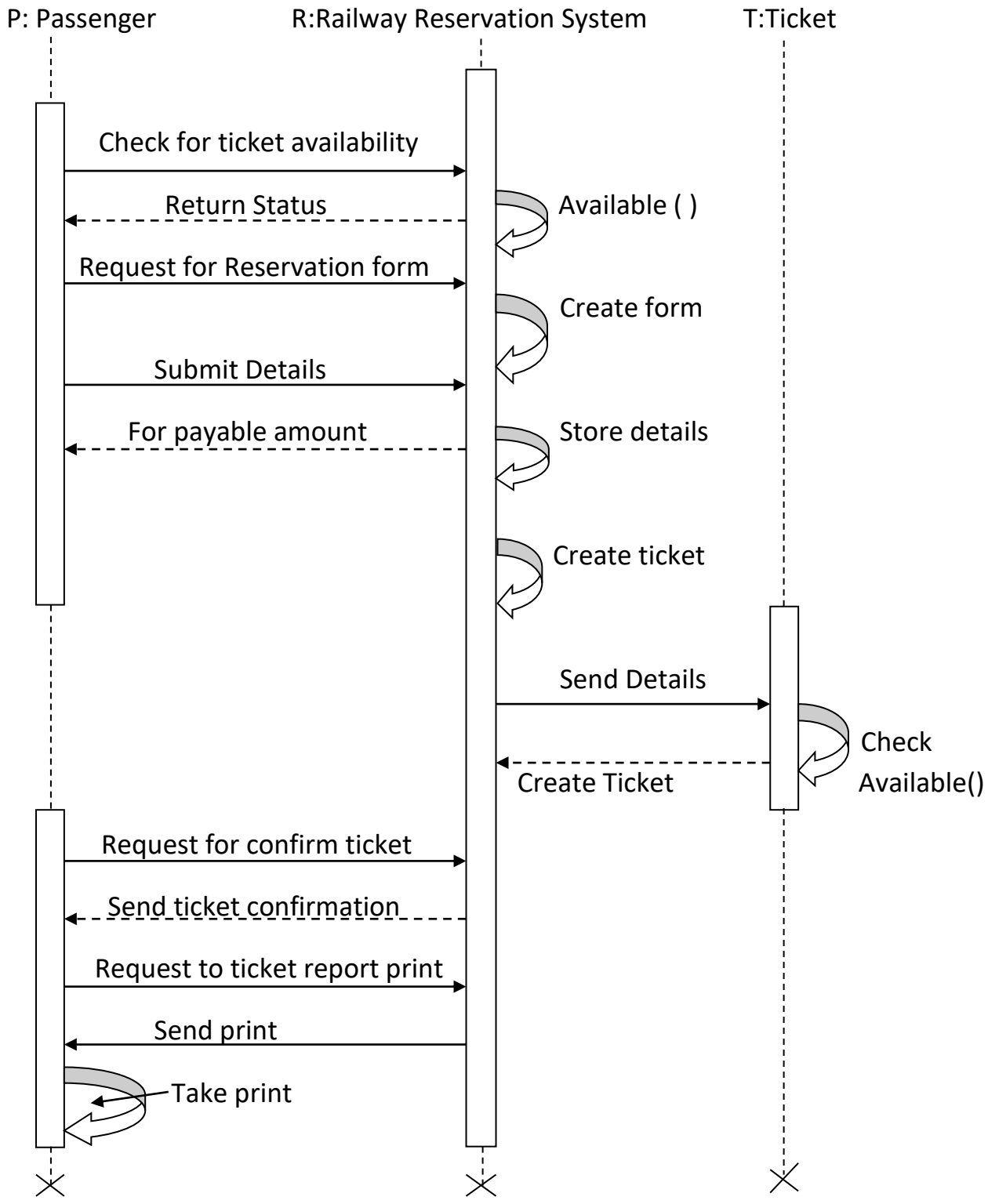


❖ For Cancel Ticket

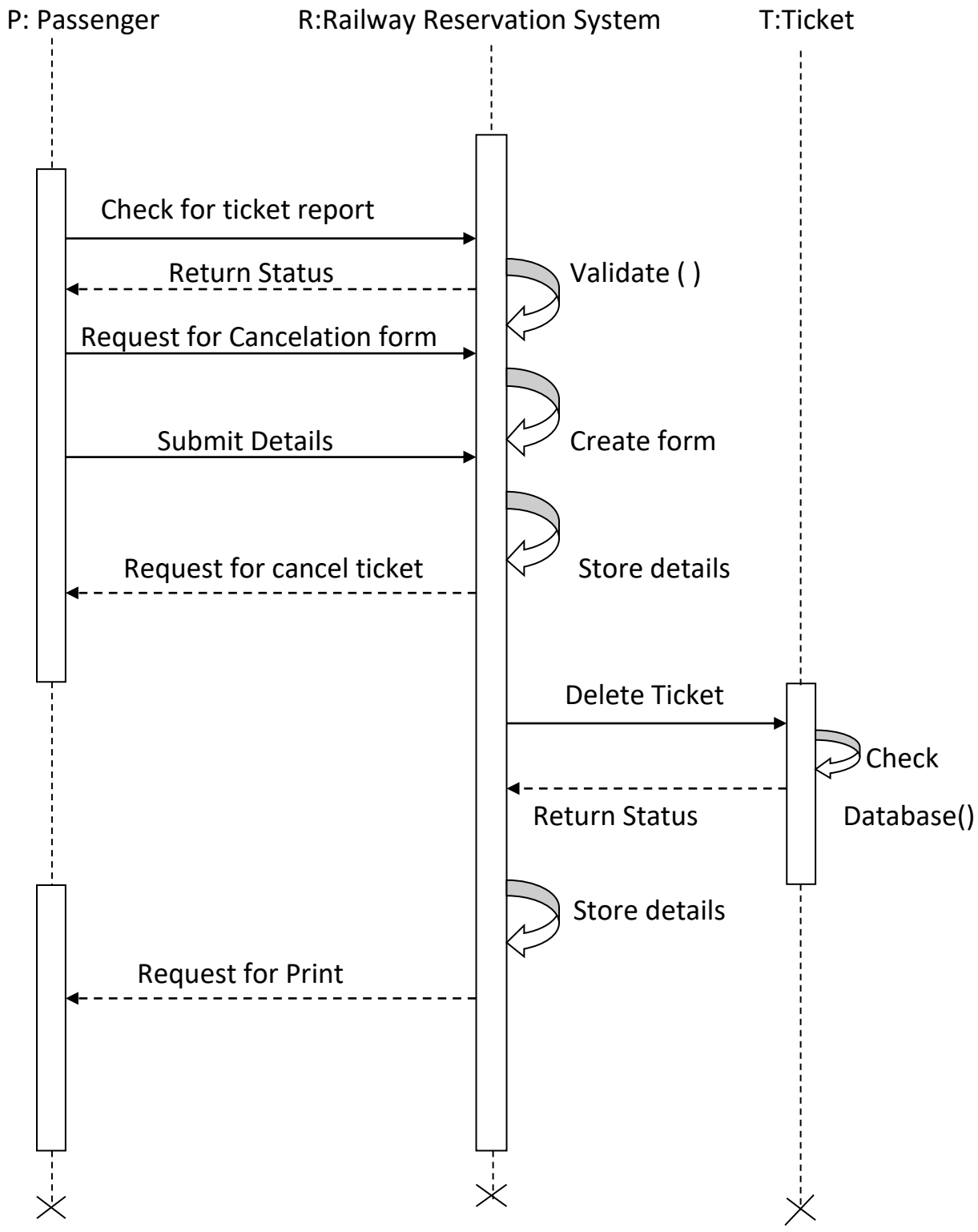


SEQUENCE DIAGRAM

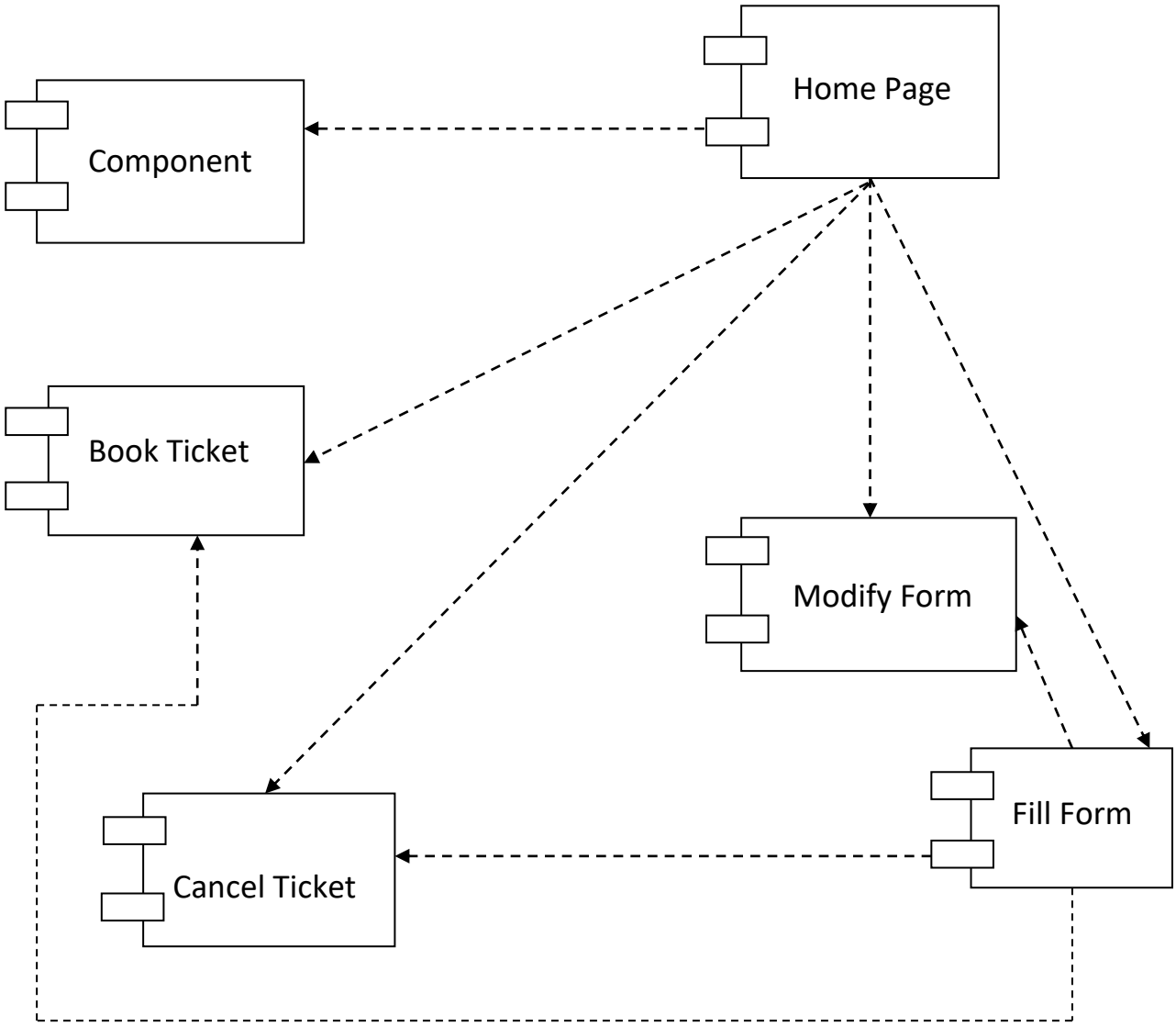
❖ For Book Ticket



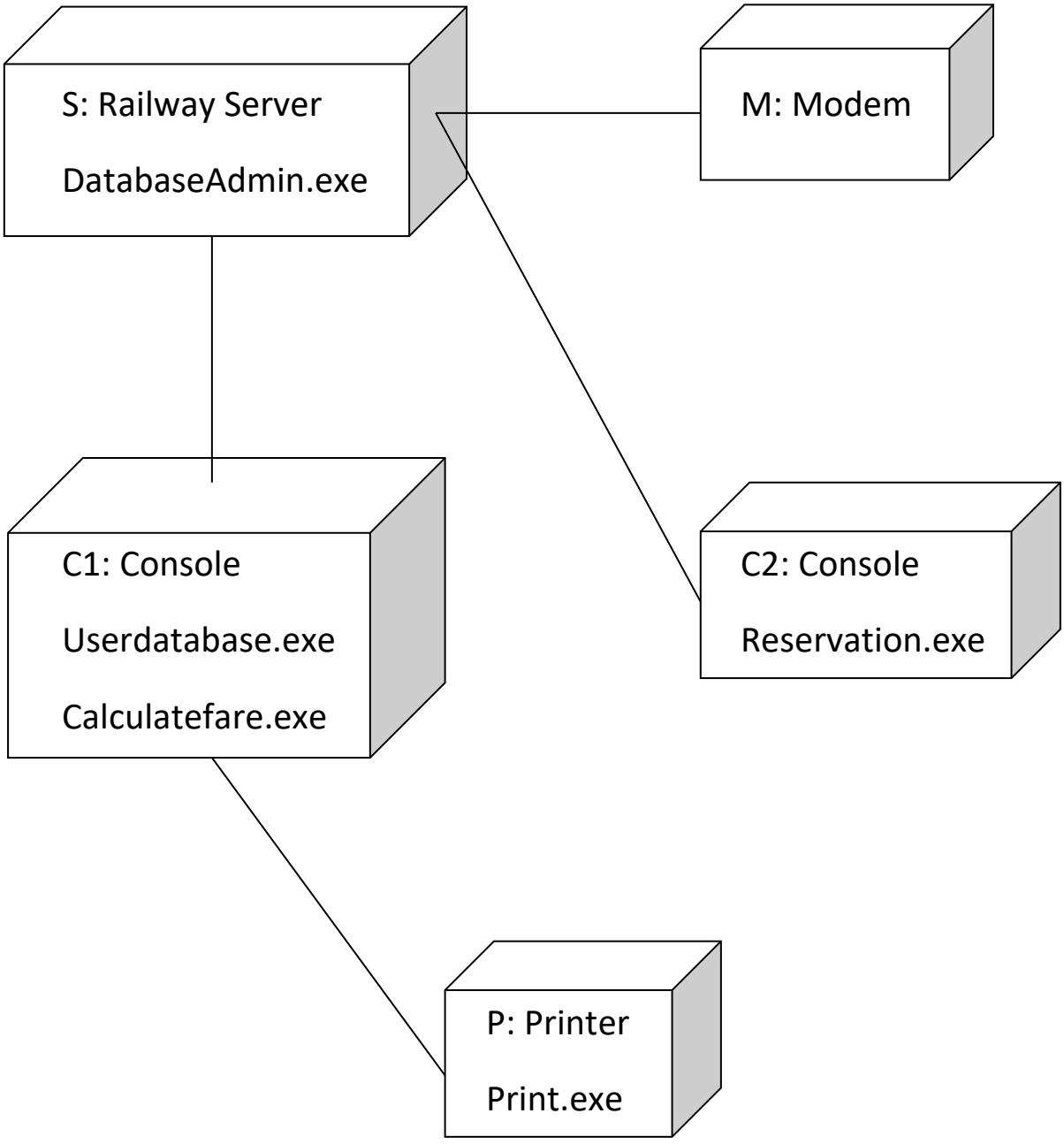
❖ For Cancel Ticket



COMPONENT DIAGRAM



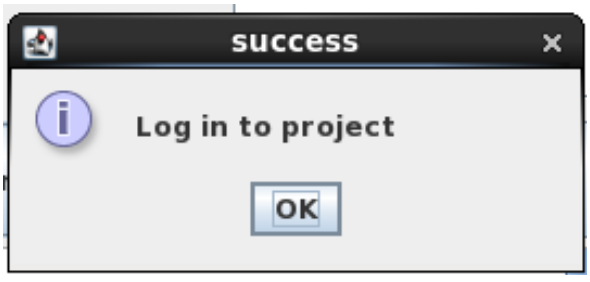
DEPLOYMENT DIAGRAM



INPUT OUTPUT SCREENS

Login Screen

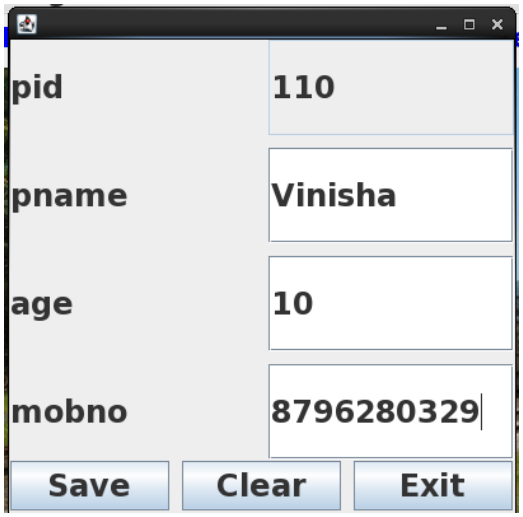
Admin Login



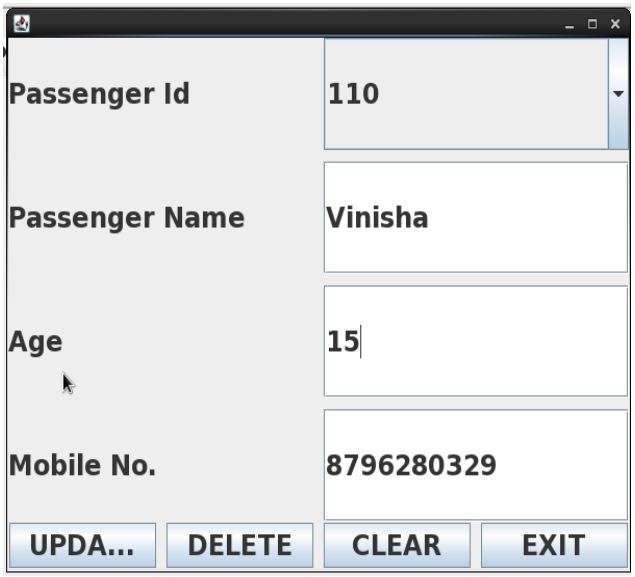
Login successful

PASSENGER REPORT

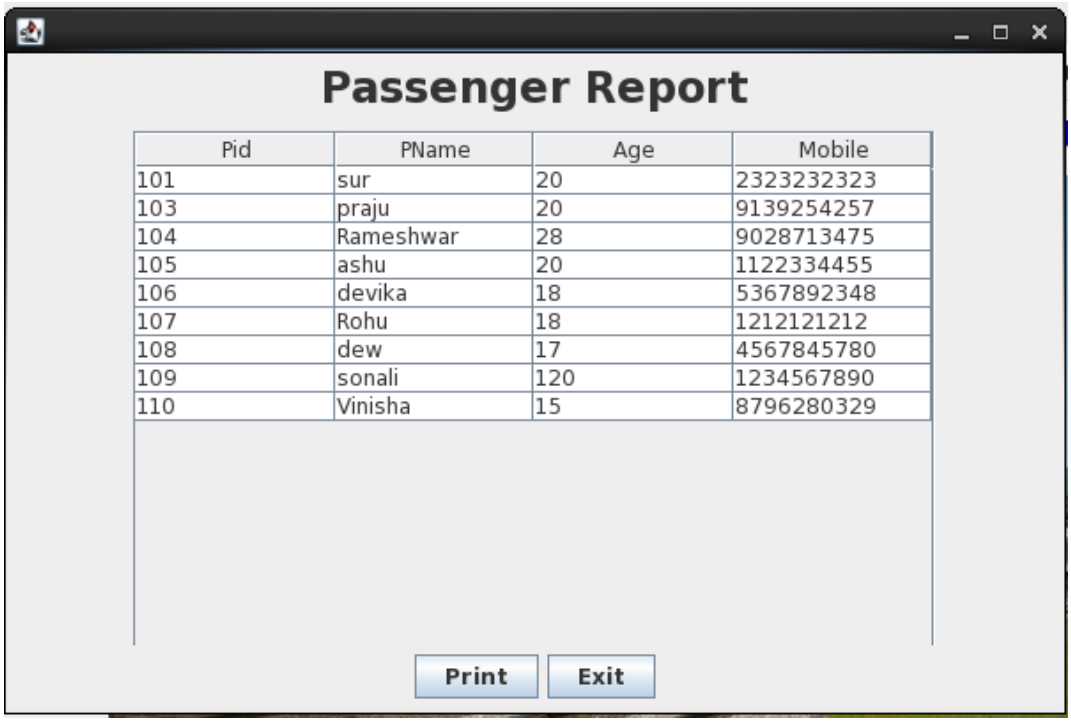
Insert Passenger:



Update Passenger:

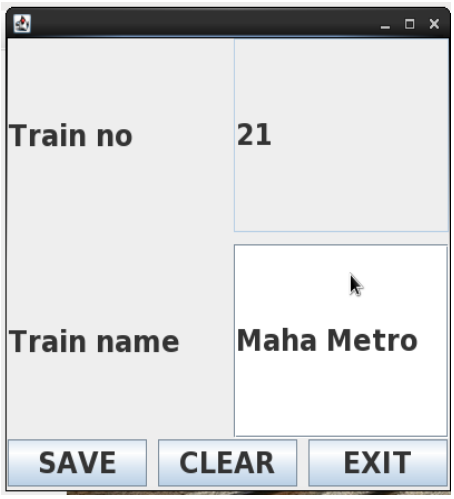


Passenger Report:

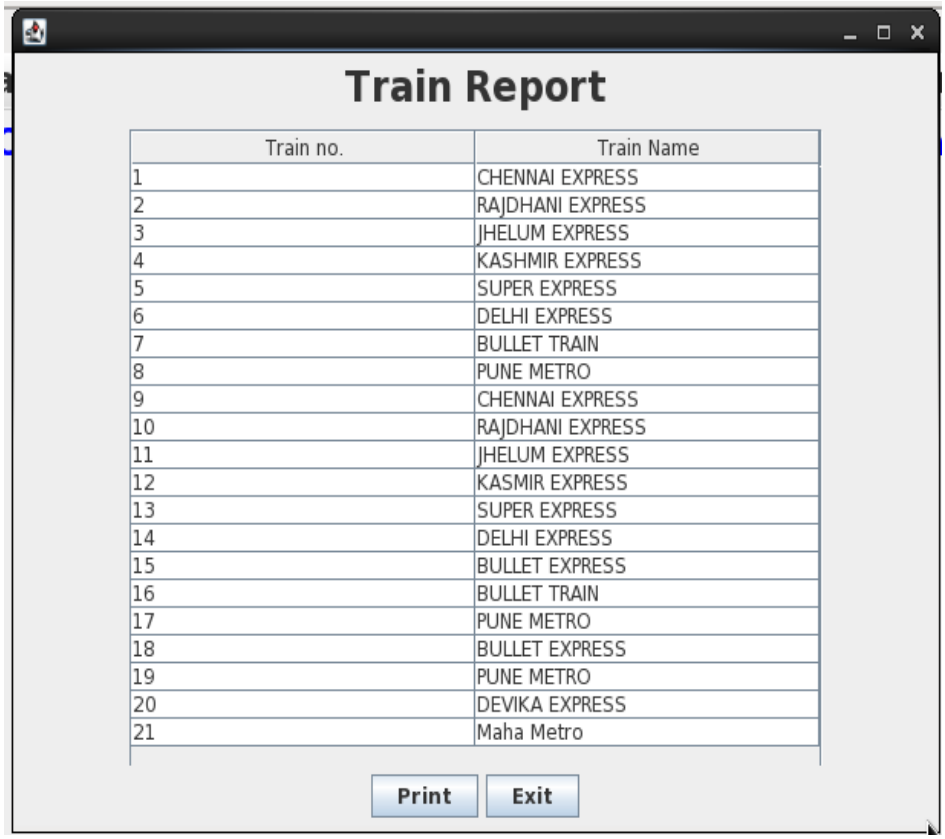


Train Report

Insert Train:

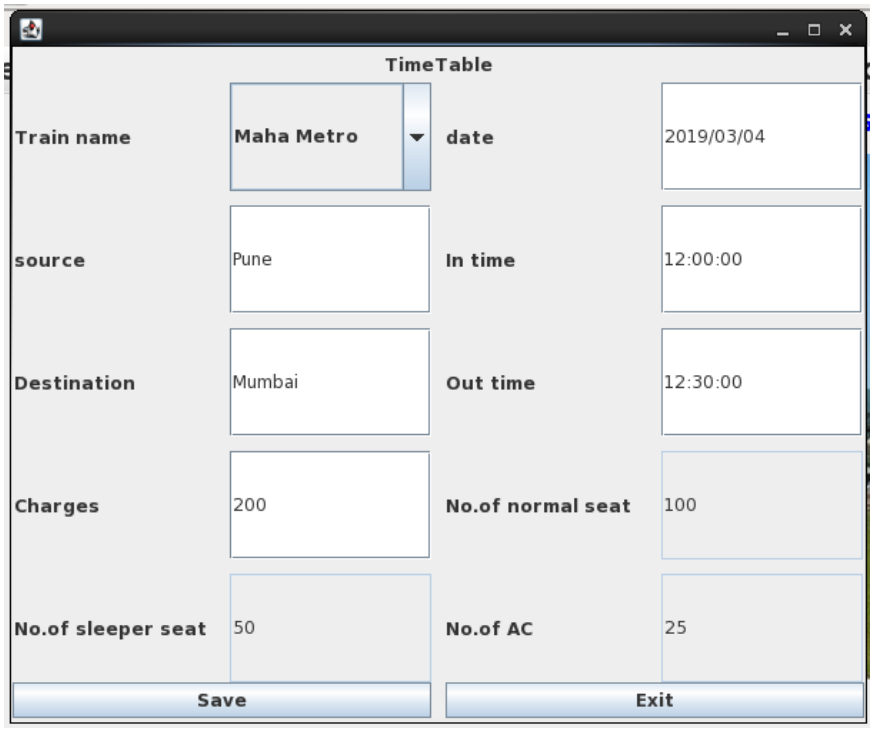


Train Report:

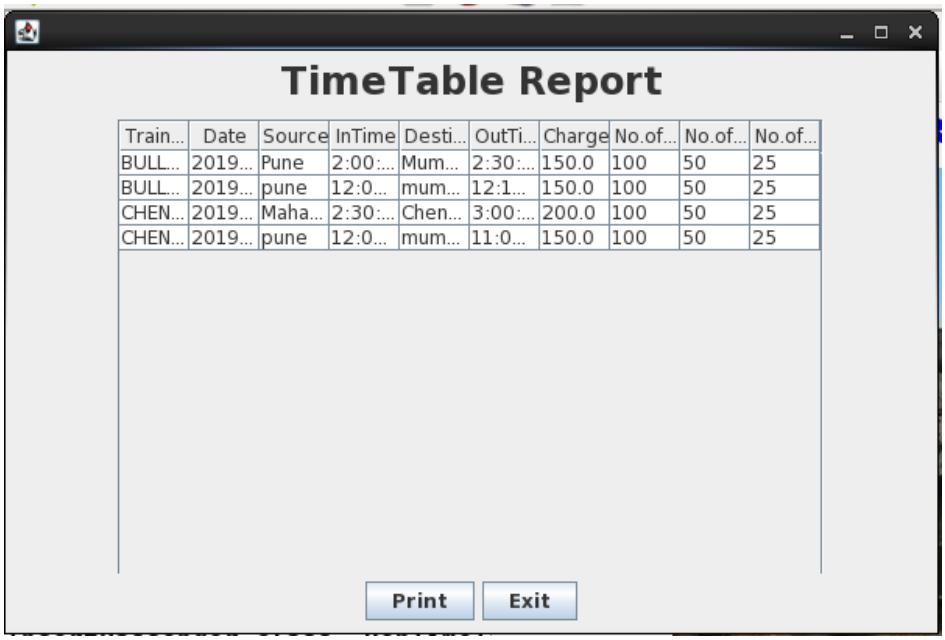


Timetable Report

Insert Time Table:

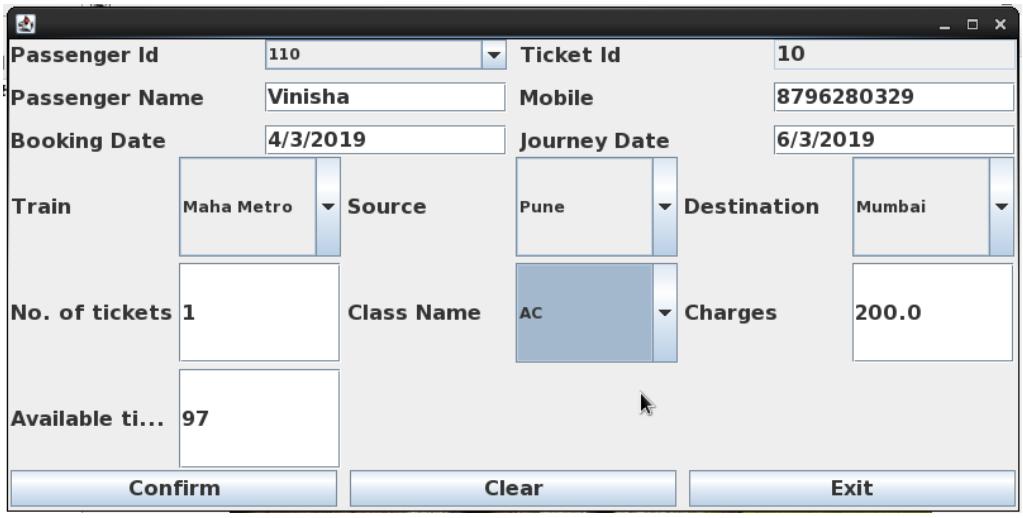


Time Table Report:

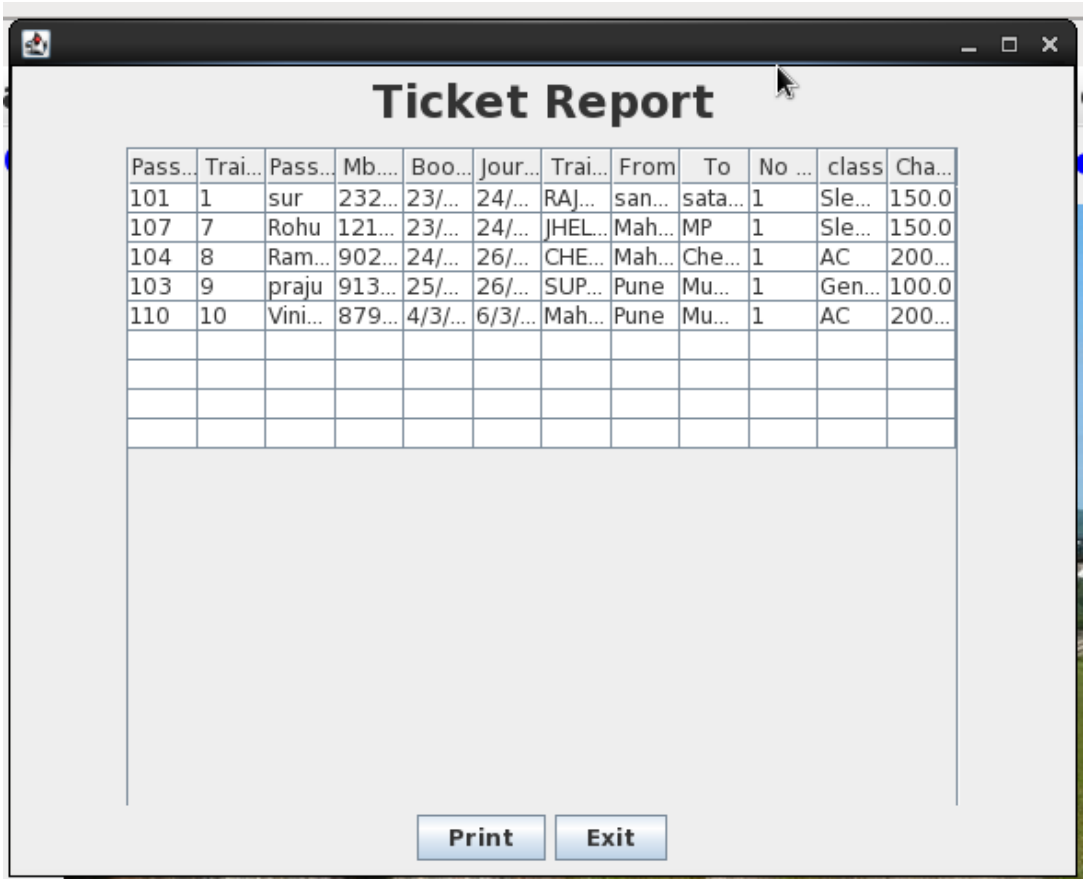


Ticket Report

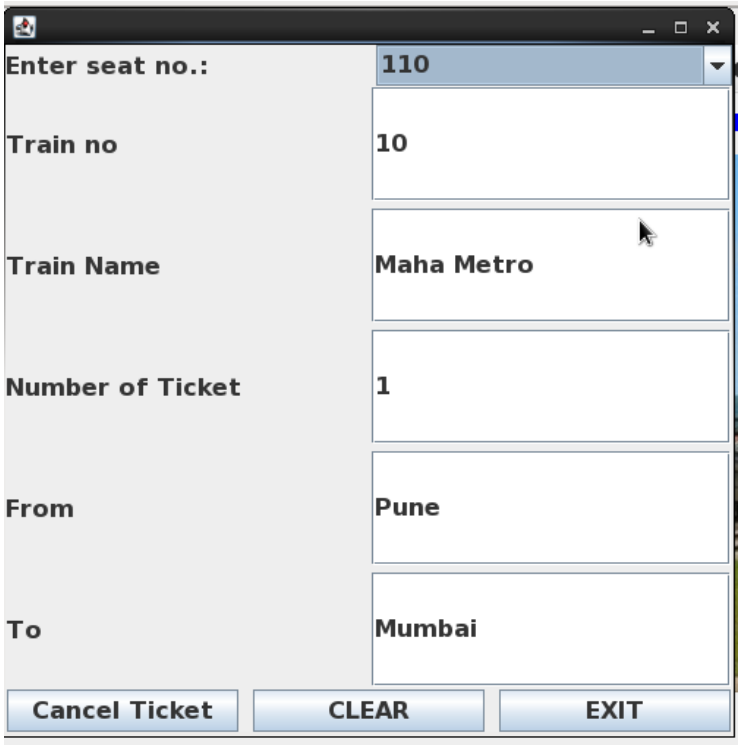
Book Ticket:



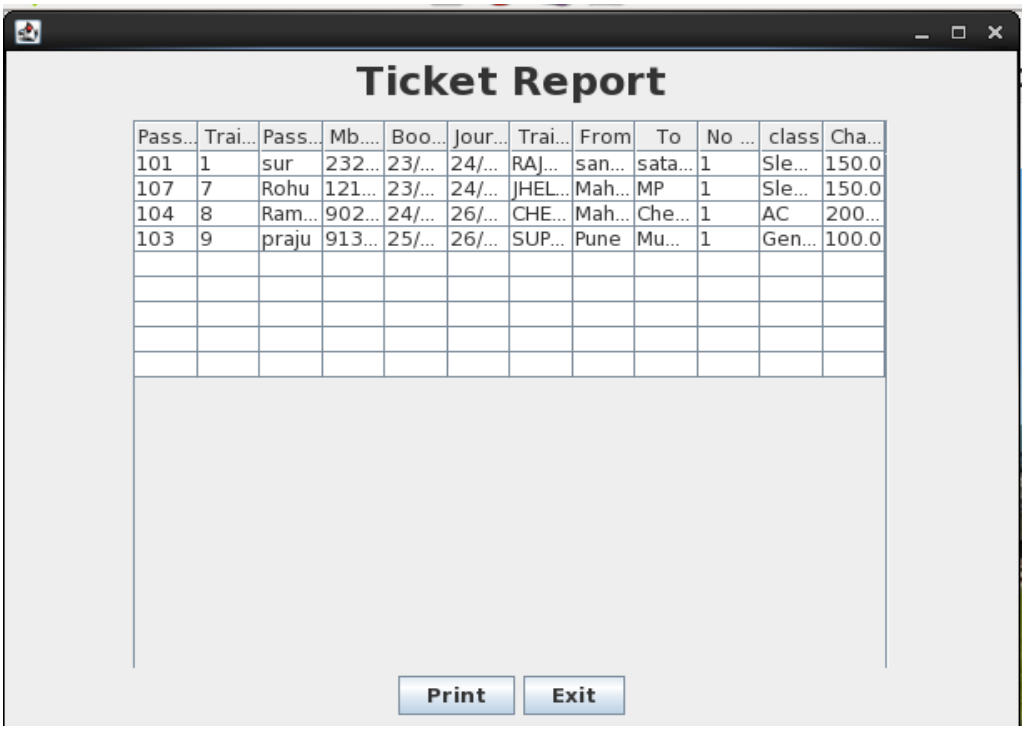
Booked Ticket Report:



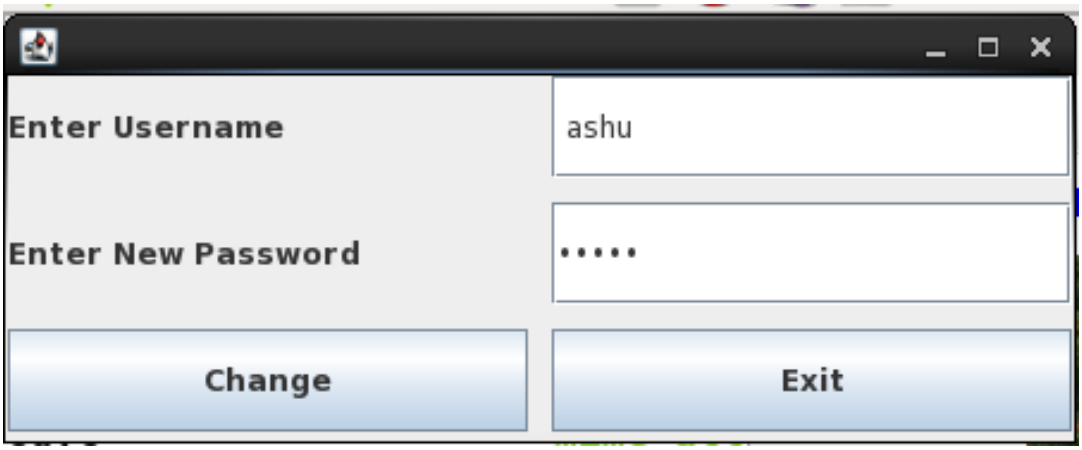
Cancel Ticket:

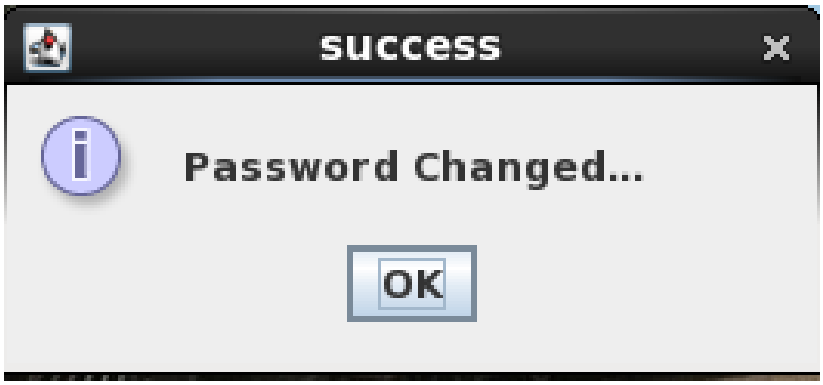


Canceled Ticket Report:



Change Password:





LIMITATIONS

1. The person must be familiar with system.

2. While adding the new data into the system, date redundancy may occur.

3. Service get blocked due to use of the system by multiple users at the same time.

FUTURE ENHANCEMENT

1. The system will reduce data redundancy and make the data management more efficient.

2. The person will be able to update or add large amount of data into the system.

CONCLUSION

The online railway reservation system is included for same application but also have some drawbacks.

The system can handle the passenger's requirement. It can print the ticket booked by passengers as the passenger will have some transcript with him. The system successfully handles the database concepts.

So, the conclusion is that the system is useful but not perfect one.

BIBLOGRAPHY

References:

- The complete references java — Herbert Schildt
- Software Engineering — Roger Pressman
- Programming in java — Poonam Ponde
- Java 2 Programming Blacl-Book — Holzner
- UML 2.0 by O'REILLY
- Wikipedia.