PART B – Micro-project Report

Title of Micro-Project: Railway Management System.

1. **Rationale:** The Railway management system is developed using java programming language using different variables and strings. In railway management system, passenger can easily book tickets, cancel reservation, view the railway schedule and also check the passenger list. It manages all the information about passenger reservation and ticket booking.

2. **Aim:** Aim of this micro-project is to build an application program to reduce the manual work for managing the passenger reservation, railways booking, passenger enquiry and to increase efficiency of managing the reservation and booking of railway.

3. **Course outcomes Addressed:**

   CO1: Develop programs using Object Oriented methodology in Java.
   CO2: Apply concept of inheritance for code reusability.

4. Literature Review:

In railway management system, passenger can easily book tickets, cancel reservation, view the railway schedule and also check the passenger list. It manages all the information about passenger reservation and ticket booking.

5. Actual Methodology Followed:

1. Gathering basic information about Railway management system and its terms.
2. Making proposal of micro-project.
3. Making changes in proposal if required.
4. Developing java program to create Railway management system.
5. Checking the output of program and making some changes.
6. Preparing the report of micro-project.

6. Actual Resources Used:

S.no.	Name of Resource/material	Specification	Qty	Remarks
1)	Jdk 1.8.0	Execute the program	1	
2)	Word	Designing the project information and typing	1	

7.0 Code and Outputs of the Micro-Projects:

```
import java.util.*;
class railway
{
void intro()
{
System.out.println("\n\n
==============================================================
======");
System.out.println(" ******************WELCOME TO RAILWAY
RESERVATION SYSTEM**************");
System.out.println("
==============================================================
======");
System.out.println(" \t reserve your seat at our Indian Railway.com");
}
}
```

```java
class reservation extends railway
{
String fname,lname,mname;
int sno,tno,pid;
void first()
{
super.intro();
}
Scanner sc=new Scanner(System.in);
void getdata()
{
System.out.print("\n\n Enter your First Name=");
fname=sc.next();
System.out.print(" enter your Middle Name=");
mname=sc.next();
System.out.print(" enter your last name=");
lname=sc.next();
System.out.print(" enter your passenger id=");
pid=sc.nextInt();
System.out.print(" enter your seat no=");
sno=sc.nextInt();
System.out.print(" enter your train no=");
tno=sc.nextInt();
}
void show()
{
System.out.println("\n "+  pid+"     "+fname+" "+mname+" "+lname+"
"+sno+" "+tno);
}
public static void main(String args[])
{
Scanner sc=new Scanner(System.in);
reservation re[]=new reservation[100];
int ch,ch1,x,id,q,p=0,num=0,flag=0;
do
{
System.out.println("\n *******************RAILWAY
RESERVATION SYSTEM********************");
```

```
System.out.println(" ===========================our
services=========================");

System.out.println("\n 1:VIEW ALL AVAILABLE TRAINS");
System.out.println(" 2:RESERVE TICKET");
System.out.println(" 3:CANCEL RESERVATION");
System.out.println(" 4:RESERVATION LIST");
System.out.println(" 5:EXIT");
System.out.print(" enter your choice :");
ch=sc.nextInt();
switch(ch)
{
case 1:
System.out.println("\n TR.NO\t TNAME\t\t\t DESTINATION
\tCHARGES\t TIME");

System.out.println("\n 1001 \t RAJDHANI EXPRESS\tMUMBAI-DELHI
\t 5000 \t 9.00 AM");
System.out.println(" 1002 \t REDLINE EXPRESS\tDELHI-MUMBAI \t
5000 \t 12.00 PM");
System.out.println(" 1003 \t SHATABDI EXPRESS\tBANGLORE-PUNE
\t 4500 \t 8.00 AM");
System.out.println(" 1004 \t LA CITY EXPRESS\tPUNE-BANGLORE \t
4500 \t 11.00 AM");
System.out.println(" 1005 \t DURONTO EXPRESS\tNASHIK-GOA \t
4000 \t 7.00 AM");
System.out.println(" 1006 \t IRONCITY EXPRESS\tGOA-NASHIK \t
4000 \t 9.30 AM");
System.out.println(" 1007 \t KEYSTONE EXPRESS\tNAGPUR-NANDED
\t 3500 \t 1.00 PM");
System.out.println(" 1008 \t GATIMAAN EXPRESS\tNANDED-
NAGPUR \t 3500 \t 4.00 PM");
System.out.println(" 1009 \t SUNRISE EXPRESS\tKACHCH-PUNJAB \t
3000 \t 6.00 AM");
System.out.println(" 1010 \t SUNRISE EXPRESS\tPUNJAB-KACHCH \t
3000 \t 10.00 PM");
break;
case 2:
```

```java
if (flag==0)
{
System.out.println("**********************enter the details of

passenger********************");
System.out.print("\n\n how many person you want=");
x=sc.nextInt();
for(int i=0;i<x;i++)
{
re[i]=new reservation();
}
for(int i=0;i<x;i++)
{
re[i].getdata();
}

flag++;
num=num+x;
}
else
{
System.out.println("**********************enter the details of
passenger********************");
System.out.print("\n\n how many person you want=");
x=sc.nextInt();
int a=x;
a=a+num;
for(int i=num;i<a;i++)
{
re[i]=new reservation();
}
int i=0;
i=i+num;
do
{
re[i].getdata();
i++;
p++;
```

```java
}while(p!=x);
num=num+x;
}
break;

case 3:
System.out.print("\n\nenter passenger id to cancel the ticket=");
id=sc.nextInt();
int post=0;
for(int i=0;i<num;i++)
{
if(id==re[i].pid)
{
post=i+1;
break;

}
}
if(post==0)
{
System.out.print("passenger with given id wasn't found...");
}
else
{
for(int i=post-1;i<num;i++)
{
re[i]=re[i+1];
}
num--;
}
break;
case 4:
System.out.println(" *********************list of
passenger*******************");
System.out.println("
================================================================
====");
System.out.println("\n\n Pass_id FNAME MNAME LNAME SNO
```

```
TNO");
for(int i=0;i<num;i++)
{
re[i].show();
}

break;
case 5:
break;
}
}while(ch!=5);
}
}
```

```
*********************RAILWAY RESERVATION SYSTEM*********************
==========================our services==========================

1:VIEW ALL AVAILABLE TRAINS
2:RESERVE TICKET
3:CANCEL RESERVATION
4:RESERVATION LIST
5:EXIT
enter your choice :2
*********************enter the details of passenger*********************


how many person you want=2


Enter your First Name=Ram
enter your Middle Name=Ramesh
enter your last name=Patil
enter your passenger id=1
enter your seat no=40
enter your train no=1010


Enter your First Name=Sham
enter your Middle Name=Santosh
enter your last name=Pawar
enter your passenger id=2
enter your seat no=50
enter your train no=1008

*********************RAILWAY RESERVATION SYSTEM*********************
==========================our services==========================

1:VIEW ALL AVAILABLE TRAINS
2:RESERVE TICKET
3:CANCEL RESERVATION
4:RESERVATION LIST
5:EXIT
enter your choice :
```

```
*********************RAILWAY RESERVATION SYSTEM*********************
==========================our services==========================

1:VIEW ALL AVAILABLE TRAINS
2:RESERVE TICKET
3:CANCEL RESERVATION
4:RESERVATION LIST
5:EXIT
enter your choice :4
*********************list of passenger*********************
==========================================================


Pass_id FNAME MNAME LNAME SNO TNO

1       Ram Ramesh Patil 40 1010

2       Sham Santosh Pawar 50 1008

*********************RAILWAY RESERVATION SYSTEM*********************
==========================our services==========================

1:VIEW ALL AVAILABLE TRAINS
2:RESERVE TICKET
3:CANCEL RESERVATION
4:RESERVATION LIST
5:EXIT
enter your choice :_
```

8.0 Skill Developed / Learning outcome of this Micro-Project:

We learned how to create project, we learn how to use switch case and different operators in Java Programming Language.