

Problem statement:

Booking a train ticket with name of train and name ,ages of passengers and used to display the remaining count of seats ,that is different from the other train which allow the names of passengers that are used in other train using java

//Program that allows Duplicates

```
import java.util.ArrayList;
```

```
import java.util.*;
```

```
class Train
```

```
{
```

```
private String tname;
```

```
//private int aseats=50;
```

```
private int as;
```

```
public String pname[]=new String[100];
```

```
public int page[]=new int[100];
```

```
int c=1,nop;
```

```
Train()
```

```
{
```

```
}
```

```
Train(String[] pname,int[] page)
```

```
{
```

```
    this.pname=pname;
```

```
    this.page=page;
```

```
}
```

```
public void setAs(int as)
```

```
{
```

```
    this.as=as;
```

```
}
```

```
public int getAs()
```

```
{
```

```
    return as;
```

```

}

void express()
{
    System.out.println("-----");
    System.out.println("Ticket(s) booked successfully!");
    System.out.println("Seats remaining:"+(this.as));

}

}

class Main
{
public static void main(String[] args)
{
    Scanner sc=new Scanner(System.in);
    int i=1,count=1,ch,j=1,count1=0;
    String tname;
    String pname[]=new String[100];
    String x[]=new String[100];
    int page[]=new int[100];
    int nop,as=50,as1=50;
    HashMap<String,Integer> h=new HashMap<String,Integer>();
    ArrayList<String> name = new ArrayList<String>();
    ArrayList<String> na=new ArrayList<String>();
    System.out.println("*****");
        System.out.println("\t\tWelcome to Railway Ticket Reservation Console Application");
        System.out.println("*****");
    do{
        System.out.println("Please choose the option");
        System.out.println("1. Book the Ticket \n2. Exit");
        ch=sc.nextInt();
        switch(ch)

```

```

{
case 1:

    System.out.println("Enter the Train name:");

    tname=sc.next();

    System.out.println("Enter the number of tickets you want to book:");

    nop=sc.nextInt();

    if(h.containsKey(tname))
    {
        int x1=h.get(tname);

        h.put(tname,x1-nop);

        System.out.println("Passenger Details:");

        for(i=1;i<=nop;i++)
        {

            System.out.println("Passenger "+i+" details ");

            pname[i]=sc.next();

            if (name.contains(pname[i]))
            {
                System.out.println("Name already exists!");

                i=i-1;
            }
            else
            {
                sc.nextLine();

                page[i]=sc.nextInt();

                Train t1=new Train(pname,page);

                name.add(pname[i]);
            }
        }

        count=50-x1 +1;
    }
}

```

```

else
{
    h.put(tname,50-nop);
    for(i=1;i<=nop;i++)
    {

        System.out.println("Passenger "+i+" details ");
        pname[i]=sc.next();

        if (na.contains(pname[i]))
        {
            System.out.println("Name already exists!");
            i=i-1;
        }
        else
        {
            sc.nextLine();
            page[i]=sc.nextInt();
            Train t1=new Train(pname,page);
            name.add(pname[i]);
            na.add(pname[i]);

        }

        count=1;
    }
    na.clear();
}

```

```

Train t=new Train();

```

```

System.out.println("*****");
System.out.println("          Your Ticket Details          ");
System.out.println("*****");
System.out.println("          Train name:"+tname+"          ");
System.out.println("-----");
System.out.println("          Passenger Details          ");
System.out.println("-----");
System.out.println("passenger name\t\t passenger age\t\tpassenger seat");
for(i=1;i<=nop;i++)
{

    System.out.print(pname[i]+"\\t\\t");
    System.out.print(page[i]+"\\t\\t");
    System.out.print(count+"\\t\\t");
    count++;
    System.out.println();
}
as=50;
as=as-(count-1);
t.setAs(as);
t.express();

    break;
case 2: System.out.println("Thank you for using the Ticket Reservation System. Goodbye!");
    break;
default: System.out.println("Invalid input");
}
}while(ch!=2);
}
}

```

Output:

```
***** Welcome to Railway Ticket Reservation Console Application *****
Please choose the option
1. Book the Ticket
2. Exit
1
Enter the Train name:
exp
Enter the number of tickets you want to book:
2
Passenger 1 details
sri
20
Passenger 2 details
pra
20
*****
***** Your Ticket Details *****
Train name:exp
-----
Passenger Details
-----
passenger name      passenger age      passenger seat
sri                  20                1
pra                  20                2
-----
Ticket(s) booked successfully!
Seats remaining:48
Please choose the option
1. Book the Ticket
2. Exit
1
Enter the Train name:
exp
Enter the number of tickets you want to book:
2
```

```
exp
Enter the number of tickets you want to book:
2
Passenger Details:
Passenger 1 details
sri
Name already exists!
Passenger 1 details
tanu
20
Passenger 2 details
manu
20
*****
***** Your Ticket Details *****
Train name:exp
-----
Passenger Details
-----
passenger name      passenger age      passenger seat
tanu                 20                3
manu                 20                4
-----
Ticket(s) booked successfully!
Seats remaining:46
Please choose the option
1. Book the Ticket
2. Exit
1
Enter the Train name:
ord
Enter the number of tickets you want to book:
2
Passenger 1 details
sri
20
```

```
exp
Enter the number of tickets you want to book:
2
Passenger Details:
Passenger 1 details
sri
Name already exists!
Passenger 1 details
tanu
20
Passenger 2 details
manu
20
*****
***** Your Ticket Details *****
Train name:exp
-----
Passenger Details
-----
passenger name      passenger age      passenger seat
tanu                 20                3
manu                 20                4
-----
Ticket(s) booked successfully!
Seats remaining:46
Please choose the option
1. Book the Ticket
2. Exit
1
Enter the Train name:
ord
Enter the number of tickets you want to book:
2
Passenger 1 details
sri
20
```