Problem Statement: The main aim of this mini project is to create a Train ticket registration program using Java Programming Language. This code must take the necessary details of the passenger like the Passenger's name and age to display the final output.

Source Code:

```
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("**************************************************************
************");
        System.out.println("Seats remaining:"+(this.as));

System.out.println("**************************************************************
************");


}
}
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 ");
            System.out.println("Enter the Passenger Name");
            pname[i]=sc.next();
           if (name.contains(pname[i]))
```

```
    {
    System.out.println("Name already exists! Please enter another name");
    i=i-1;
    }
    else
    {
    sc.nextLine();
    System.out.println("Enter the Passenger Age");
    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 ");
    System.out.println("Enter the Passenger Name");
    pname[i]=sc.next();

   if (na.contains(pname[i]))
    {
    System.out.println("Name already exists! Please enter another name");
    i=i-1;
```

```
            }
            else
            {
            sc.nextLine();
            System.out.println("Enter the Passenger Age");
            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\t");
          System.out.print(page[i]+"\t\t\t");
          System.out.print(count+"\t\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 Format:

```
**********************************************************************
Welcome to Railway Ticket Reservation Console Application
**********************************************************************
Please choose the option
1. Book the Ticket
```

2. Exit

1

Enter the Train name:

Express

Enter the number of tickets you want to book:

2

Passenger 1 Details

Enter the Passenger Name

Jay

Enter the Passenger Age

24

Passenger 2 Details

Enter the Passenger Name

Jake

Enter the Passenger Age

22

****

Your Ticket Details

****

Train name : Express

----------Passenger Details----------

passenger name	passenger age	passenger seat
Jay	24	1
Jake	22	2

Ticket(s) booked successfully!

****

Seats remaining:48

****

Please choose the option

1. Book the Ticket

2. Exit

2

Thank you for using the Ticket Reservation System. Goodbye!

Conclusion: The source code written above will calculate the seat numbers of the passenger accordingly as we increase their count and proportionately decreases the number of seats remaining. This code also accepts the name repetition of the passenger's name in the registration process.