```java
import java.io.*;
public class BusReservation {

    public static void main(String args[]) throws IOException {
    BufferedReader in = new BufferedReader(new InputStreamReader(System.in));

    String user,password,yn,search,again,choice;
    int to=0,y=1,z=0,end=0,r=1,flag=0,seat;
    int available[] = new int[6];
    int ticketI[][] = new int [100][3];
    String ticketS[][] = new String[100][3];
    double ticketD[][] = new double [100][3];
    double pay[] = new double[20];
    double change[] = new double[20];

    for(int i=1;i<4;){
            System.out.print("Enter Username: ");
            user = in.readLine();
            System.out.print("Enter Password: ");
            password = in.readLine();

      //"available[]" is the SEAT AVAILABLE//
            //store 20 seats every destination [1-5]//
      for(int o=1; o<=5; o++){
            available[o]=20;
            }

      //if user and password are correct proceed to MAIN MENU//
      if(user.equals("12345") && password.equals("12345")){

            for(int x=1; x==1;){
                  //the MAIN MENU//

    System.out.println("*******************************************");
                  System.out.println("   BUS RESERVATION AND TICKETING SYSTEM
");

    System.out.println("*******************************************");
                  System.out.println("*  [1] Destination
*");
                  System.out.println("*  [2] Passengers
*");
                  System.out.println("*  [3] Billing
*");
                  System.out.println("*  [4] View
*");
                  System.out.println("*  [5] Exit
*");

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

                  for(x=1; x==1;){
                          System.out.print("ENTER CHOICE: ");
                          choice=in.readLine();

                          //if CHOICE is "1" display the DESTINATION//
                          if (choice.equals("1")){
```

```java
                                //the DESTINATION DETAILS//
                                //display the "Destination", every destination
"Fare", and the "Seat" available//

     System.out.println("****************************************");
                                System.out.println("    DESTINATION   |  FARE  |
SEAT    ");

     System.out.println("****************************************");
                                System.out.println("*  1.)Pune          | 800 Rs |
"+available[1]+"    *");
                                System.out.println("*  2.)Mumbai        | 600 Rs |
"+available[2]+"    *");
                                System.out.println("*  3.)Aurangabad    | 400 Rs |
"+available[3]+"    *");
                                System.out.println("*  4.)Nashik        | 300 Rs |
"+available[4]+"    *");
                                System.out.println("*  5.)Nagpur        | 900 Rs |
"+available[5]+"    *");

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

     System.out.println("****************************************\n");
                                System.out.println("PWD, STUDENT, & SENIOR CITIZEN
with 20% DISCOUNT!!!\n");
                                x=0;
                                }

                                //if CHOICE is "2" proceed to Ticket Booking//
                                else if (choice.equals("2")){
                                    int print=1;


                                //display first the Destination Details//

     System.out.println("****************************************");
                                System.out.println("    DESTINATION   |  FARE  |
SEAT    ");

     System.out.println("****************************************");
                                System.out.println("*  1.)Pune          | 800 Rs |
"+available[1]+"    *");
                                System.out.println("*  2.)Mumbai        | 600 Rs |
"+available[2]+"    *");
                                System.out.println("*  3.)Aurangabad    | 400 Rs |
"+available[3]+"    *");
                                System.out.println("*  4.)Nashik        | 300 Rs |
"+available[4]+"    *");
                                System.out.println("*  5.)Nagpur        | 900 Rs |
"+available[5]+"    *");

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

     System.out.println("****************************************\n");
                                System.out.println("PWD, STUDENT, & SENIOR CITIZEN
with 20% DISCOUNT!!!\n");
```

```java
if((available[1]==0)&&(available[2]==0)&&(available[3]==0)&&(available[4]==0)&&(ava
ilable[5]==0)){
                                        System.out.println("Sorry, We don't  have
available seats for all Destination!");
                                        x=0;

                        }


                        //inputing of Passenger's Name//
                        else{
                        for(x=1; x==1;){
                                System.out.print("\nENTER PASSENGER'S NAME: ");
                                ticketS[z][0] = in.readLine();

                                        x=0;

                                        //if Passenger's Name already used,
display error and go back to Inputing//
                                for(int l=0; l<z; l++){
                                        if(ticketS[l]
[0].equalsIgnoreCase(ticketS[z][0])){
                                                System.out.println("Sorry,
Passenger's name have already used!");
                                                x=1;
                                        }
                                }
                        }

                        //inputing of Destination//
                        //integers Only [1-5]//
                        for(x=1; x==1;){
                                System.out.print("ENTER DESTINATION [number]:
");
                                to = Integer.parseInt(in.readLine());

                                //if Inputed integers are "<1" or ">5", display
error and go back to Inputing//
                                if(to<1 || to>5){
                                        System.out.println("Invalid Input!");
                                        x=1;
                                }
                                //if available seat is eqaul to "Zero", display
error and go back to Inputing//
                                for(int d=1; d<=5; d++){
                                        if(to==d){
                                                if(available[to]==0){
                                                        System.out.println("Sorry, We
don't have available seat!");
                                                        x=1;
                                                }
                                                x=0;
                                        }
                                }
                        }

                        //convert the integer to string//
```

```java
                              String dest[] = { " ", "Pune", "Mumbai",
"Aurangabad", "Nashik", "Nagpur"};
                              double fare[] = { 0,800,600,400,300,900};

                              //converted integer to string, transfer to storage
array//
                              ticketS[z][1] = dest[to];
                              ticketD[z][0] = fare[to];

                              //inputing for Number of Passenger's//
                              for(x=1; x==1;){
                              System.out.print("HOW MANY PASSENGERS ARE YOU?: ");
                              ticketI[z][0] = Integer.parseInt(in.readLine());

                                   //subtract the available seat by the the number
inputed//

                                   for(int p=1; p<=5; p++){
                                        if(to==p){
                                             print=1;

                                                       flag=1;
                                             available[to] = available[to]-
ticketI[z][0];

                                             //if the subtracted available seat
is "<0", display error//
                                             //add the inputed number to the
subtracted seat, to back the original seat//
                                             //display the available seat and
back to the inputing//
                                             if(available[to]<0){
                                                  System.out.print("Sorry, We
don't have seat available for " +ticketI[z][0] +" person\n");
                                                  available[to] = available[to]
+ticketI[z][0];
                                                  System.out.print("We only
have " +available[to] +" seat available\n");
                                                  x=1;
                                                  print=0;
                                             }
                                             else{
                                                  x=0;
                                             }
                                        }
                                   }

                              }

                              //inputing for Number of Discounted Passenger's//
                              for(x=1;x==1;){
                                   System.out.print("HOW MANY PASSENGERS HAVE
DISCOUNT?: ");
                                   ticketI[z][1] =
Integer.parseInt(in.readLine());

                                   if(ticketI[z][1]>ticketI[z][0]){
```

```java
                                        System.out.println("Invalid Input!");
                                        System.out.println("No. of Passengers are
only " +ticketI[z][0] +"!");
                                    x=1;
                                    }
                                    else{
                                        break;
                                    }
                                }
                                if(flag==1)
                                    seat=20-(available[to]+ticketI[z][0]);
                                    else
                                        seat=20-available[to];
                                    int j=0;
                                    int n=ticketI[z][0];
                                    int[] your=new int [n];
                                    while(j<n)
                                    {
                                        your[j]=++seat;
                                        j++;
                                    }
                            //print out of passengers details....
                            if(print==1){
                                    System.out.println("\
n****************************************");
                                    System.out.println("        PASSENGER'S DETAILS
");

        System.out.println("****************************************");
                                    System.out.println("PASSENGER'S NAME: " +
ticketS[z][0]);
                                    System.out.println("PASSENGER'S DESTINATION : "
+ ticketS[z][1]);
                                    System.out.println("FARE PRICE: Rs " +
ticketD[z][0]);
                                    System.out.println("NO. OF PASSENGERS: " +
ticketI[z][0]);
                                    System.out.println("NO. OF PASSENGERS WITH
DISCOUNT: " + ticketI[z][1]);
                                            System.out.println("Seat NO. : ");
                                            for(j=0;j<n;j++)
                                            {
                                                System.out.println(your[j] + "
");
                                            }

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

        System.out.println("****************************************\n");
                                    ticketS[z][2]="0";
                                    double discount=(ticketD[z][0]-(ticketD[z]
[0]*0.2))*ticketI[z][1];
                                    ticketD[z][2]= ((ticketI[z][0]-ticketI[z]
[1])*ticketD[z][0])+discount;
                                    x=0;
                            }
                            z++;
                            }
```

```java
                                }
                                else if (choice.equals("3")){

                                        for(x=1; x==1;){

                                                System.out.print("ENTER PASSENGER'S
NAME: ");

                                                search = in.readLine();


                                                int s=1;
                                                for(int b=0;b<z;b++){

        if(search.equalsIgnoreCase(ticketS[b][0])){

        System.out.println("*************************************");
                                                        System.out.println("
PASSENGER'S DETAILS          ");

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

        System.out.println("PASSENGER'S NAME: " + ticketS[b][0]);

        System.out.println("PASSENGER'S DESTINATION : " + ticketS[b][1]);
                                                        System.out.println("FARE
PRICE: Rs" + ticketD[b][0]);

                                                        System.out.println("NO. OF
PASSENGERS: " + ticketI[b][0]);

                                                        System.out.println("NO. OF
PASSENGERS WITH DISCOUNT: " + ticketI[b][1]);

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

        System.out.println("*************************************");
                                                        s=0;
                                                            x=0;

                                                            if(ticketS[b]
[2].equals("x")){

        System.out.println("Passenger's Already Paid!");
                                                                x=0;
                                                            }
                                                            else{
                                                                ticketS[b][2]="x";


                                                                for(x=1; x==1;){

        System.out.println("\nPASSENGER'S TOTAL FARE: Rs "+ticketD[b][2]);

        System.out.print("ENTER AMOUNT TO PAY: ");
                                                                    pay[b] =
Double.parseDouble(in.readLine());

                                                                    change[b]=pay[b]-
ticketD[b][2];
```

```java
                                                        if(change[b]<0){

    System.out.println("Invalid Input!");

                                                                x=1;
                                                        }
                                                        else{

    System.out.println("CHANGE: Rs "+change[b]);

    System.out.println("");

                                                                x=0;
                                                        }
                                                    }
                                                    }
                                                }
                                            }
                                            if (s==1){
                                                System.out.println("\
nPASSENGER'S NAME NOT FOUND!\n");

                                                for(int q=1; q==1;){

                                                System.out.print("Do you wish
to continue with this transaction? [Y/N]: ");

                                                again=in.readLine();


    if(again.equalsIgnoreCase("y")){

                                                        q=0;
                                                }
                                                else if
(again.equalsIgnoreCase("n")){

                                                        q=0;
                                                        x=0;

                                                }
                                                else{
                                                        System.out.println("\
nInvalid input!\n");
                                                }


                                                }
                                            }
                                        }

                                }
                                else if (choice.equals("4")){


                                        for(int sx=1; sx<=3;){
                                        System.out.print("SEARCH PASSENGER'S NAME: ");
                                search = in.readLine();

                                int s=1;
                                        for(x=0; x<=z; x++){

    if(search.equalsIgnoreCase(ticketS[x][0])){
```

```java
		System.out.println("****************************************");
						System.out.println("
PASSENGER'S DETAILS           ");

		System.out.println("****************************************");
						System.out.println("PASSENGER'S
NAME: " + ticketS[x][0]);

						System.out.println("PASSENGER'S
DESTINATION : " + ticketS[x][1]);

						System.out.println("FARE PRICE: Rs"
+ ticketD[x][0]);

						System.out.println("NO. OF
PASSENGERS: " + ticketI[x][0]);

						System.out.println("NO. OF
PASSENGERS WITH DISCOUNT: " + ticketI[x][1]);

						System.out.println("TOTAL FARE
PRICE: Rs " + ticketD[x][2]);

						if(ticketS[x][2].equals("x")){
							System.out.println("PAY: Rs "
+pay[x]);

							System.out.println("CHANGE:
Rs " +change[x]);

							System.out.println("STATUS:
PAID");

						}
						else{
							System.out.println("STATUS:
NOT PAID");

						}

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

		System.out.println("****************************************");
						s=0;
							sx=4;
						}
					}

					if (s==1){
						System.out.println("Passenger's
Name not found!");

						sx++;
					}

				}
				}

				else if(choice.equals("5")){
					end=1;
					x=0;
					System.out.println("Thank You!");
				}

				else{
					System.out.println("Invalid Input!");
					x=1;
				}
			}
```

```java
                    for(y=1; y==1;){
                        if(end==1){
                            break;
                        }
                        System.out.print("Do you want another transaction? [Y/N]:
");

                        yn = in.readLine();

                        if (yn.equalsIgnoreCase("y")){
                            x=1;
                            y=0;
                        }
                        else if (yn.equalsIgnoreCase("n")){
                            System.out.println("\nThank You!!!");
                            break;
                        }
                        else{
                            System.out.println("Invalid Input!!!");
                            y=1;
                        }
                    }
                }
                i=4;
            }
            else{
                System.out.println("\nInvalid user or password!\n");
                i++;
            }

        }

        }

    }
```