

JAVA MINI PROJECT – BUS RESERVATION AND TICKETING SYSTEM

PROJECT CODE :-

```
import java.io.*;

public class BusReservationAndTicketingSystem {

    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;

        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("1") && password.equals("1")){

                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")){

                //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.) DAVAO CITY  |  Php600  |  "+available[1]+"  ***");
                System.out.println("*** 2.) BUTUAN CITY  |  Php170  |  "+available[2]+"  ***");
                System.out.println("*** 3.) CABADBARAN  |  Php150  |  "+available[3]+"  ***");
                System.out.println("*** 4.) TANDAG    |  Php200  |  "+available[4]+"  ***");
                System.out.println("*** 5.) CAGAYAN   |  Php250  |  "+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("*****");

            }

```

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

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

System.out.println("*** 1.) DAVAO CITY | Php600 | "+available[1]+" ***");

System.out.println("*** 2.) BUTUAN CITY | Php170 | "+available[2]+" ***");

System.out.println("*** 3.) CABADBARAN | Php150 | "+available[3]+" ***");

System.out.println("*** 4.) TANDAG | Php200 | "+available[4]+" ***");

System.out.println("*** 5.) CAGAYAN | Php250 | "+available[5]+" ***");

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

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

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

        if((available[1]==0)&&(available[2]==0)&&(available[3]==0)&&(available[4]==0)&&(available[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;                                }

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//if available seat is equal 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//
String dest[] = { " ", "DAVAO CITY", "BUTUAN CITY", "CABADBARAN", "TANDAG", "CAGAYAN"};
double fare[] = { 0,600,170,150,200,250}; //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;
            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{

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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]){
System.out.println("Invalid Input!"); System.out.println("No. of Passengers are only " +ticketI[z][0] +"!");
x=1;
}
else{
break;}}

//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: Php " + 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("*****");
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++;    }    }
else if (choice.equals("3")){
    for(x=1; x==1;){
        System.out.print("ENTER PASSENGER'S NAME: ");
        search = in.readLine()
        int s=1;

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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: Php" + 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: Php "+ticketD[b][2]);

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

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

if(change[b]<0){

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

x=1;    }

            else{

System.out.println("CHANGE: Php "+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;);

```

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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])){

                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: Php" + 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: Php " + ticketD[x][2]);

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

System.out.println("PAY: Php " +pay[x]);

System.out.println("CHANGE: Php " +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{

x=1;}}

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{

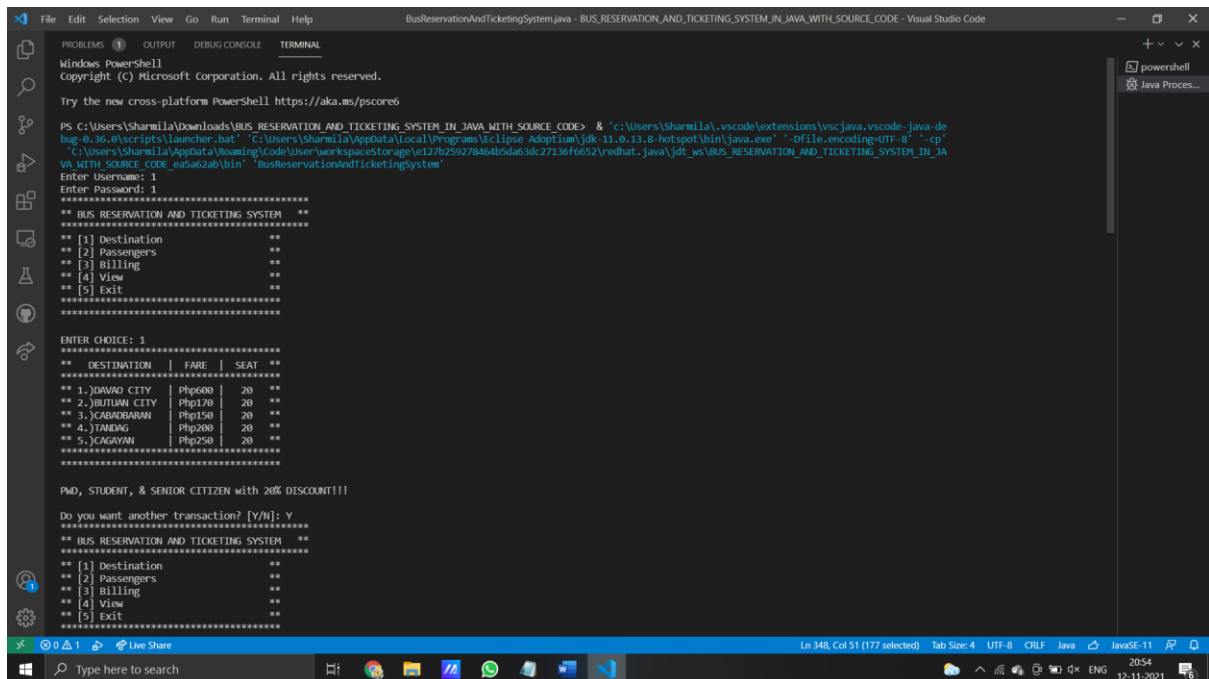
System.out.println("\nInvalid user or password!\n");

i++;

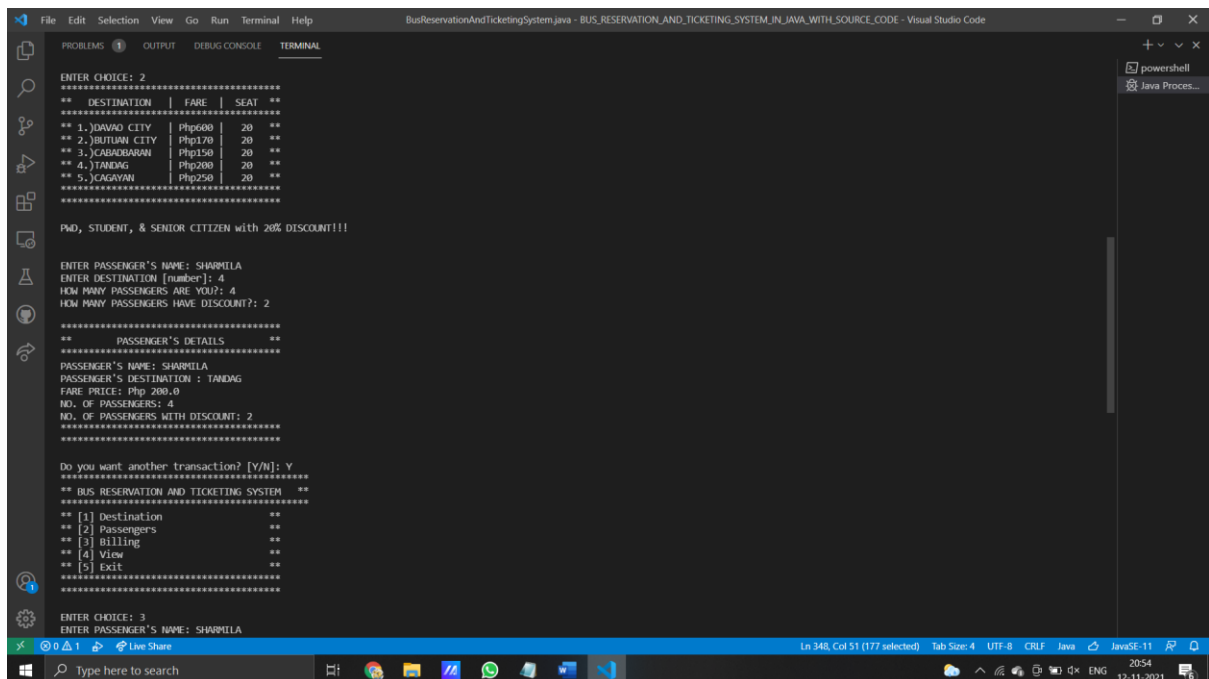
}}}}

```


OUTPUT:-



```
PS C:\Users\Sharmila\Downloads\BUS_RESERVATION_AND_TICKETING_SYSTEM_IN_JAVA_WITH_SOURCE_CODE> & 'c:\Users\Sharmila\.vscode\extensions\vscode-java-de
bug-0.36.0\scripts\launcher.bat' 'C:\Users\Sharmila\AppData\Local\Programs\Eclipse Adoptium\jdk-11.0.13.8-hotspot\bin\java.exe' '-Dfile.encoding=UTF-8' '-cp'
'C:\Users\Sharmila\AppData\Roaming\Code\User\workspaceStorage\e127b259278464b5da63dc27136f6652\redhat.java\jdt_ws\BUS_RESERVATION_AND_TICKETING_SYSTEM_IN_JA
VA_WITH_SOURCE_CODE_ea5a62ab\bin' 'BusReservationAndTicketingSystem'
Enter Username: 1
Enter Password: 1
*****
** BUS RESERVATION AND TICKETING SYSTEM **
*****
** [1] Destination      **
** [2] Passengers      **
** [3] Billing          **
** [4] View            **
** [5] Exit            **
*****
ENTER CHOICE: 1
*****
** DESTINATION | FARE | SEAT **
*****
** 1.)DAVAO CITY | Php600 | 20 **
** 2.)JUTANI CITY | Php170 | 20 **
** 3.)CAGADARAHAN | Php150 | 20 **
** 4.)TANDAG | Php200 | 20 **
** 5.)CAGAYAN | Php250 | 20 **
*****
P40, STUDENT, & SENIOR CITIZEN with 20% DISCOUNT!!!
Do you want another transaction? [Y/n]: Y
*****
** BUS RESERVATION AND TICKETING SYSTEM **
*****
** [1] Destination      **
** [2] Passengers      **
** [3] Billing          **
** [4] View            **
** [5] Exit            **
*****
```



```
ENTER CHOICE: 2
*****
** DESTINATION | FARE | SEAT **
*****
** 1.)DAVAO CITY | Php600 | 20 **
** 2.)JUTANI CITY | Php170 | 20 **
** 3.)CAGADARAHAN | Php150 | 20 **
** 4.)TANDAG | Php200 | 20 **
** 5.)CAGAYAN | Php250 | 20 **
*****
P40, STUDENT, & SENIOR CITIZEN with 20% DISCOUNT!!!
ENTER PASSENGER'S NAME: SHARMILA
ENTER DESTINATION [number]: 4
HOW MANY PASSENGERS ARE YOU?: 4
HOW MANY PASSENGERS HAVE DISCOUNT?: 2
*****
** PASSENGER'S DETAILS **
*****
PASSENGER'S NAME: SHARMILA
PASSENGER'S DESTINATION : TANDAG
FARE PRICE: Php 200.0
NO. OF PASSENGERS: 4
NO. OF PASSENGERS WITH DISCOUNT: 2
*****
Do you want another transaction? [Y/n]: Y
*****
** BUS RESERVATION AND TICKETING SYSTEM **
*****
** [1] Destination      **
** [2] Passengers      **
** [3] Billing          **
** [4] View            **
** [5] Exit            **
*****
ENTER CHOICE: 3
ENTER PASSENGER'S NAME: SHARMILA
```

```
File Edit Selection View Go Run Terminal Help BusReservationAndTicketingSystem.java - BUS_RESERVATION_AND_TICKETING_SYSTEM_IN_JAVA_WITH_SOURCE_CODE - Visual Studio Code

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL

*****
** PASSENGER'S DETAILS **
*****
PASSENGER'S NAME: SHARMILA
PASSENGER'S DESTINATION : TANDAG
FARE PRICE: Php200.0
NO. OF PASSENGERS: 4
NO. OF PASSENGERS WITH DISCOUNT: 2
*****

PASSENGER'S TOTAL FARE: Php 720.0
ENTER AMOUNT TO PAY: 1000
CHANGE: Php 280.0

Do you want another transaction? [Y/N]: Y
*****
** BUS RESERVATION AND TICKETING SYSTEM **
*****
** [1] Destination **
** [2] Passengers **
** [3] Billing **
** [4] View **
** [5] Exit **
*****

ENTER CHOICE: 4
SEARCH PASSENGER'S NAME: SHARMILA
*****
** PASSENGER'S DETAILS **
*****
PASSENGER'S NAME: SHARMILA
PASSENGER'S DESTINATION : TANDAG
FARE PRICE: Php200.0
NO. OF PASSENGERS: 4
NO. OF PASSENGERS WITH DISCOUNT: 2
TOTAL FARE PRICE: Php 720.0
PAY: Php 1000.0
CHANGE: Php 280.0
STATUS: PAID
*****
Do you want another transaction? [Y/N]: Y
*****
** BUS RESERVATION AND TICKETING SYSTEM **
*****

Ln 348, Col 51 (177 selected) Tab Size: 4 UTF-8 CRLF Java JavaSE-11 2055 12-11-2021
```

```
File Edit Selection View Go Run Terminal Help BusReservationAndTicketingSystem.java - BUS_RESERVATION_AND_TICKETING_SYSTEM_IN_JAVA_WITH_SOURCE_CODE - Visual Studio Code

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL

ENTER AMOUNT TO PAY: 1000
CHANGE: Php 280.0

Do you want another transaction? [Y/N]: Y
*****
** BUS RESERVATION AND TICKETING SYSTEM **
*****
** [1] Destination **
** [2] Passengers **
** [3] Billing **
** [4] View **
** [5] Exit **
*****

ENTER CHOICE: 4
SEARCH PASSENGER'S NAME: SHARMILA
*****
** PASSENGER'S DETAILS **
*****
PASSENGER'S NAME: SHARMILA
PASSENGER'S DESTINATION : TANDAG
FARE PRICE: Php200.0
NO. OF PASSENGERS: 4
NO. OF PASSENGERS WITH DISCOUNT: 2
TOTAL FARE PRICE: Php 720.0
PAY: Php 1000.0
CHANGE: Php 280.0
STATUS: PAID
*****
Do you want another transaction? [Y/N]: Y
*****
** BUS RESERVATION AND TICKETING SYSTEM **
*****
** [1] Destination **
** [2] Passengers **
** [3] Billing **
** [4] View **
** [5] Exit **
*****

ENTER CHOICE: 5
Thank You!
PS C:\Users\Sharmila\Downloads\BUS_RESERVATION_AND_TICKETING_SYSTEM_IN_JAVA_WITH_SOURCE_CODE>

Ln 348, Col 51 (177 selected) Tab Size: 4 UTF-8 CRLF Java JavaSE-11 2055 12-11-2021
```