import java.io.\*;//Importing input/output package.

class Transport//Naming the class.

{

String name[]=new String[100];

String address[]=new String[100];//Creating an array for storing data.

char gender[]=new char[100];

String occupation[]=new String[100];

String destination[]=new String[100];

String food[]=new String[100];

String eachpass[]=new String[1000];

int eachpassage[]=new int[1000];

int age[]=new int[100];

int passenger[]=new int[100];

long mobno[]=new long[100];

int i=0;

double bill[]=new double[100];

double base=0.0,distance=0.0;//Declaring the variables.

int transport[]=new int[100];

int service[]=new int[100];

String vehicle[]={"Car","Rickshaw","Truck"};

String veh,trans="",nul;

int time[]= new int[100];

Transport(int ix,double basex,double disx)//Creating a parameterised constructor.

{

i=ix;

base=basex;

distance=disx;//Initializing variables through constructors.

}

public static void main()throws IOException

{

InputStreamReader isr= new InputStreamReader(System.in);

BufferedReader br=new BufferedReader (isr);//Activating buffer.

Transport ob=new Transport(0,0.0,0.0);//Instantiating the class by creating an object.

int ch;

do

{

System.out.println("These are your options:");

System.out.println("Enter 1 for accepting customer details and the booking made by the customer.");

System.out.println("Enter 2 for calculating and displaying the bill to the customer.");

System.out.println("Enter 3 for food packages.");

System.out.println("Enter 4 for cancellation of order.");

System.out.println("Enter 5 for giving feedback.");

System.out.println("Enter 6 for arranging list of fellow passengers according to age.");

System.out.println("Enter 7 to exit.");

ch=Integer.parseInt(br.readLine());//Accepting user's choice through the input device.

switch(ch)

{

case 1: ob.details();

break;

case 2: ob.billing();

break;

case 3: ob.food();

break;

case 4: ob.cancellation();

break;

case 5: ob.feedback();//Calling the corresponding function.

break;

case 6: ob.sorting();

break;

case 7: System.out.println("Thanks for choosing our company. Hope we see you again!");

break;

default: System.out.println("Invalid choice");

}

}while(ch!=6);//Using a do while loop so that the program executes at least once.

}

public void details()throws IOException

{

InputStreamReader isr= new InputStreamReader(System.in);

BufferedReader br=new BufferedReader (isr);

System.out.println("Enter the customer's name, please:");

name[i]=br.readLine();

System.out.println("Enter the customer's age, please:");

age[i]=Integer.parseInt(br.readLine());

System.out.println("Enter the customer's address, please:");

address[i]=br.readLine();

System.out.println("Enter the customer's gender(enter either M or F), please:");

gender[i]=(char)br.read();

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

nul=br.readLine();

System.out.println("Enter the customer's Occupation, please:");

occupation[i]=br.readLine();

System.out.println("Enter the customer's mobile number, please:");

mobno[i]=Long.parseLong(br.readLine());

System.out.println("Enter the number of passengers, please:");

passenger[i]=Integer.parseInt(br.readLine());//Accepting user data.

System.out.println("Please enter the preferred mode of transport: 1 for air, 2 for land or 3 for water.");

System.out.println("All services are within the nation");

transport[i]=Integer.parseInt(br.readLine());

System.out.println("Enter 1 for enlisting vehicle services and 2 for renting the vehicle");

service[i]=Integer.parseInt(br.readLine());

System.out.println("Enter the distance to be travelled in kilometers");

distance=Double.parseDouble(br.readLine());

if(service[i]==2)

{

System.out.println("Enter how long the vehicle will be needed for: in days");

time[i]=Integer.parseInt(br.readLine());

}

if(transport[i]==2)

{

System.out.println("Enter whichever vehicle is needed:");

veh=br.readLine();

veh=veh.trim();

}

}

public void billing()throws IOException

{

InputStreamReader isr= new InputStreamReader(System.in);

BufferedReader br=new BufferedReader (isr);

if(transport[i]==1)

{

trans="Airways";

System.out.println("Enter the destination:");

destination[i]=br.readLine();

if(service[i]==1)

{

if(distance<=1500)

{

base=passenger[i]\*3500;

bill[i]=base+base\*18/100;

System.out.println("Tickets to "+destination[i]+" have been booked.");//Telling the customer that booking is complete.

}

else if(distance>1500 && distance<=3000)

{

base=passenger[i]\*6500;

bill[i]=base+base\*18/100;//Calculating the bill.

System.out.println("Tickets to "+destination[i]+" have been booked.");

}

else

System.out.println("Air services beyond 3000km are not avaialable as India's width is 3000km.");

}

else

System.out.println("Aviation vehicles cannot be rented, sorry.");

}

if(transport[i]==2)

{

trans="Landways";

if(service[i]==1)

{

int f=0;

for(int j=0;j<3;j++)

{

if(vehicle[j]==veh)

{

System.out.println(veh+" "+"is available.");

f=1;

if(veh.equalsIgnoreCase("Car"))

{

base=passenger[i]\*2.5\*distance;

bill[i]=base+base\*18/100;

}

if(veh.equalsIgnoreCase("Rickshaw"))//Checking if customer needs a rickshaw or not.

{

base=passenger[i]\*1.5\*distance;

bill[i]=base+base\*18/100;

}

if(veh.equalsIgnoreCase("Truck"))

{

base=45\*distance;

bill[i]=base+base\*18/100;

}

}

}

if(f==0)

System.out.println(veh+" "+"is not available.");

}

if(service[i]==2)

{

int f=0;

for(int j=0;j<3;j++)

{

if(vehicle[j].equalsIgnoreCase(veh))

{

System.out.println(veh+" "+"is available for renting.");

f=1;

if(veh.equalsIgnoreCase("Car"))

{

base=time[i]\*500;

bill[i]=base+base\*18/100;

}

if(veh.equalsIgnoreCase("Rickshaw"))

{

base=time[i]\*200;

bill[i]=base+base\*18/100;

}

if(veh.equalsIgnoreCase("Truck"))

{

base=time[i]\*300;

bill[i]=base+base\*18/100;

}

}

}

if(f==0)

System.out.println(veh+" "+"is not available for renting.");

}

}

if(transport[i]==3)

{

trans="Waterways";

if(service[i]==1)

{

System.out.println("Enter 1 for booking a ride on a ship and 2 for a ride on a yatch.");//Giving a choice to the customer.

int ww=Integer.parseInt(br.readLine());

if(ww==1)

{

base=passenger[i]\*5000;

bill[i]=base+base\*18/100;

}

if(ww==2)

{

base=passenger[i]\*200;

bill[i]=base+base\*18/100;

}

}

if(service[i]==2)

{

System.out.println("A yatch will be booked.");

base=time[i]\*6000;

bill[i]=base+base\*18/100;

}

}

System.out.println("Name of the customer:"+name[i]);

System.out.println("Address of the customer:"+address[i]);

System.out.println("Age of customer="+age[i]);

System.out.println("Mode of transport="+trans);

System.out.println("Distance travelled="+distance);

System.out.println("Mobile number of the customer="+mobno[i]);

System.out.println("Customer's order number:"+i);

System.out.println("Customer's bill:"+bill[i]);

i++;

}

public void cancellation()throws IOException

{

InputStreamReader isr= new InputStreamReader(System.in);

BufferedReader br=new BufferedReader (isr);

System.out.println("Enter customer number whose booking has to be cancelled:");

int num=Integer.parseInt(br.readLine());

int shot=100;

for(int z=num+1;z<shot;z++)//Using loop to delete order and shift other bookings one cell before.

{

name[z-1]=name[z];

address[z-1]=address[z];

gender[z-1]=gender[z];

occupation[z-1]=occupation[z];

age[z-1]=age[z];

passenger[z-1]=passenger[z];

mobno[z-1]=mobno[z];

time[z-1]=time[z];

transport[z-1]=transport[z];

service[z-1]=service[z];

shot--;

}

System.out.println("Order has been cancelled. There will be no refunds.");

}

public void food()throws IOException

{

InputStreamReader isr= new InputStreamReader(System.in);

BufferedReader br=new BufferedReader (isr);

System.out.println("Enter 1 for premium vegetarian meal, 2 for basic non-vegetarian meal and 3 for premium non-vegetarian meal:");

int fd=Integer.parseInt(br.readLine());

int j=0;

if(fd==1)

{

food[j]="Premium vegetarian meal";

System.out.println(food[j]+" has been booked.");//Letting the customer know that their favourite meal has been booked.

}

if(fd==2)

{

food[j]="Basic non-vegetarian meal";

System.out.println(food[j]+" has been booked.");

}

if(fd==3)

{

food[j]="Premium non-vegetarian meal";

System.out.println(food[j]+" has been booked.");

}

j++;

}

public void feedback()throws IOException

{

InputStreamReader isr= new InputStreamReader(System.in);

BufferedReader br=new BufferedReader (isr);

System.out.println("Please rate our services on a scale of 1 to 10.");//We improve on our services. Accepting customer feedback.

double feedback=Double.parseDouble(br.readLine());

System.out.println("Please give any suggestions for us to impprove our services.");

String fdbk=br.readLine();

}

public void sorting()throws IOException

{

InputStreamReader isr= new InputStreamReader(System.in);

BufferedReader br=new BufferedReader (isr);

int q=1,ent=0,c=0;

while(q!=0)

{

System.out.println("Enter name of fellow passenger");

eachpass[ent]=br.readLine();

System.out.println("Enter age of fellow passenger");

eachpassage[ent]=Integer.parseInt(br.readLine());

System.out.println("Enter 0 to stop and 1 to continue:");

q=Integer.parseInt(br.readLine());

ent++;

c++;//Counting number of passengers.

}

for(int s=0;s<c-1;s++)

{

int u=0,t=0;

String t1="";

for(u=0;u<c-1-s;u++)

{

if(eachpassage[u]>eachpassage[u+1])

{

t=eachpassage[u];//Sorting array of ages of passengers.

eachpassage[u]=eachpassage[u+1];

eachpassage[u+1]=t;

t1=eachpass[u];//Sorting array of names of passengers.

eachpass[u]=eachpass[u+1];

eachpass[u+1]=t1;

}

}

}

System.out.println("The list of passengers arranged in increasing order of ages is:");

for(int d=0;d<c;d++)

{

System.out.println("Name of Passenger \t\t Age of Passenger");

System.out.println(eachpass[d]+"\t\t\t"+eachpassage[d]);//Printing sorted array.

}

}

}