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REG NO : 19BCS0012

COURSE : JAVA PROGRAMMING

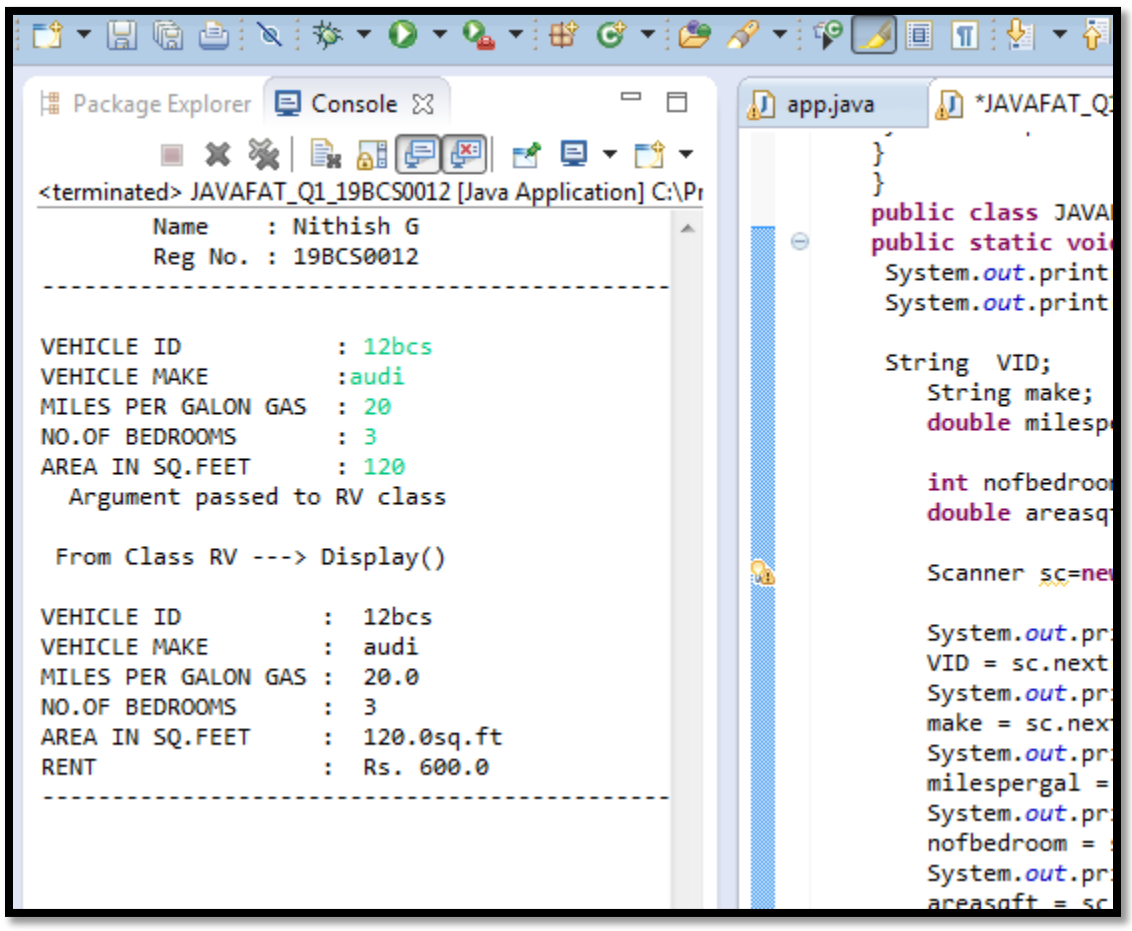
1. Create the classes named Vehicle and Dwelling. The Vehicle class contains data members such as a vehicle identification number, make, and number of miles the vehicle can travel on a gallon of gas. The Dwelling class contains data members such as number of bedrooms and area in square feet. Create a recreational vehicle class RV inherits from both Vehicle and Dwelling. RV is a vehicle that "is a" Vehicle (you drive it; it runs on gas), but also "is a" Dwelling (you sleep, cook, and live in it, at least during road trips). Create a main function inside the class RVDemo to receive five arguments required for the RV class constructor; in which, three are passed to the Vehicle constructor and the other two are passed to the Dwelling constructor. Display the received values and the rental amount using RV class display() function.

Source code

```
import java.util.Scanner;


     interface vehicle   {
     }
interface dwelling
     {
     }


class Vehicle implements vehicle
{
String Vehicle_ID;
String make;
double milespergal;

Vehicle(){}

Vehicle (String Vehicle_ID, String make,double milespergal)
{
     this.Vehicle_ID= Vehicle_ID;
     this.make = make;
     this.milespergal = milespergal;
}

}
}
class Dwelling implements dwelling
{
int nofbedroom;
double areasqft;

Dwelling (int nofbedroom,double areasqft)
{
     this.nofbedroom =nofbedroom;
     this.areasqft = areasqft;
}

}
class RV implements vehicle_dwelling
{
RV()
{
```

```
        System.out.println("  Argument passed to RV class \n");
    }

    RV(String Vehicle_ID, String make, double milespergal, int nofbedroom,double areasqft)
    {
        Vehicle V = new Vehicle( Vehicle_ID,  make, milespergal);
        Dwelling D = new Dwelling( nofbedroom,  areasqft);
        RV obj = new RV();
        obj.display(V,D);
    }

    void display(Vehicle V, Dwelling D)
    {
    System.out.println(" From Class RV ---> Display()\n");
    System.out.println("VEHICLE ID          :  " + V.Vehicle_ID);
    System.out.println("VEHICLE MAKE        :  " + V.make);
    System.out.println("MILES PER GALON GAS :  " + V.milespergal);
    System.out.println("NO.OF BEDROOMS      :  " + D.nofbedroom);
    System.out.println("AREA IN SQ.FEET     :  " + D.areasqft+"sq.ft");
    System.out.println("RENT                :  " + "Rs. "+(D.nofbedroom*V.milespergal*10));
    System.out.println("-----------------------------------------------");
    }
    }
    public class JAVAFAT_Q1_19BCS0012 {
    public static void main(String[] NITHISH) {
     System.out.print("\tName    : Nithish G \n\tReg No. : 19BCS0012\n");
     System.out.print("-----------------------------------------------\n\n");

     String  VID;
         String make;
         double milespergal;

         int nofbedroom;
         double areasqft;


         Scanner sc=new Scanner(System.in);
         System.out.print("VEHICLE ID          : ");
         VID = sc.next();
         System.out.print("VEHICLE MAKE        :");
         make = sc.next();
         System.out.print("MILES PER GALON GAS  : ");
         milespergal = sc.nextDouble();
         System.out.print("NO.OF BEDROOMS      : ");
         nofbedroom = sc.nextInt();
         System.out.print("AREA IN SQ.FEET     : ");
         areasqft = sc.nextDouble();
         RV obj = new RV(VID, make, milespergal, nofbedroom, areasqft);
    }
    }
```

OUTPUT



2. Write a program that prompts the user to input an odd digit. The program should then output a hollow rhombus of that size using the digit. For example, if input is 5, then the output is as follows:

Source code

```
import java.util.*;

public class JAVA_FATQ2_19BCS0012
{
    public static void main(String[] NITHISH)
    {


     System.out.print("\tName    : Nithish G \n\tReg No. : 19BCS0012\n");
      System.out.print("-----------------------------------------\n\n");

          int number,i,j;

      do {
            Scanner obj=new Scanner(System.in);
         System.out.print("ENTER AN ODD NUMBER: ");
         number=obj.nextInt();
         if(number%2 == 0)
            System.out.println("ITS NOT AN ODD NUMBER.....");

      }while(number % 2 == 0);


System.out.println();
System.out.println("    RHOMBUS FOR " + number+"\n\n");
if(number%2!=0)
{
    for(i=1;i<=5;i++)
    {
```

```
                if(i==1 || i==5)
                {
                    System.out.println("  "+number);
                }
                if(i==2 || i==4)
                {
                    System.out.println(" "+number+" "+number);
                }
                if(i==3)
                {
                    System.out.println(""+number+"   "+number);
                }
          }

        }

}
```

OUTPUT