

Name= hamid khan

Roll number 15730

Section A 2nd semester

Q1;what is class and role of object in a class

Answer= **class**= a class is a user defined blueprint from which objects are created.it represents the set of properties or methods that are common to all objects of one type. in general class, declaration can include these components.

- 1.modifiers:a class can be public or has default access
- 2.class name:the name should begin with initial letter
- 3.parent:a class can only extend one parent
- 4.body:the class body are surrounded by braces{}

object: an object is a component of a program that knows how to perform certain actions and how to interact with other elements of the program...aclass is a blueprint of object...you need to have a class before you can create an object.object have properties and methods

- 1.state:it is represented by attributes of an object.also reflects the property of object
- 2.behaviour:it is represented by methods of an object also reflects the response of an object with other object
- 3.identity:it gives a unique name to an object and enables one object to interact with other

Examples:dog,cat,pen.chair.etc

Q2.write a program about table printing which take input from user

```
1 import java.util.Scanner;
2
3 public class counting {
4
5     public static void main(String[] args) {
6         int digit;
7
8         Scanner hk=new Scanner(System.in);
9
10        System.out.println("Enter any digit");
11        digit=hk.nextInt();
12
13        list num=new list(digit);    //object
14        num.method();                //calling method
15
16    }
17
18 }
19
20 class list                        //class
21 {
22     int table;
23
24     list(int m)                    //constructor
25     {
26         table=m;
27     }
28
29     void method()
30     {
31         int f=0;
32
33         for(int i=1;i<=10;i++)
34         {
35             f=table*i;
36             System.out.println(table+"x"+i+"="+f);
37         }
38     }
39 }
```

Enter any digit

```
2
2x1=2
2x2=4
2x3=6
2x4=8
2x5=10
2x6=12
2x7=14
2x8=16
2x9=18
2x10=20
```

1).first create class....2).second step void main to start the main body of a program..3).declaring variable as well creating down class..4)using scanner code for user input..5).take the value from user to print table.6).creating object with down class..7).using constructor with same name of class and passing parameter...8).creating method..9).last calling method with object

Q3.write a program about any 2 cars which calculate performance

```
1 package h;
2
3 public class fourwheel {
4
5     public static void main(String[] args) {
6
7         car nissan=new car();
8         car luxus=new car();
9
10        nissan.car="GTR";
11        nissan.tyre=4;
12        nissan.doors=4;
13        nissan.engine=2.7;
14        nissan.fuelcapcity=49.3;
15        nissan.fuelconsumption=1.7;
16
17        luxus.car="LX 570";
18        luxus.tyre=4;
19        luxus.doors=4;
20        luxus.engine=5.7;
21        luxus.fuelcapcity=64.3;
22        luxus.fuelconsumption=2.1;
23
24        System.out.println("Name :"+nissan.car);
25        System.out.println("No. of tyre :"+nissan.tyre);
26        System.out.println("No. of door :"+nissan.doors);
27        System.out.println("Engine"+nissan.engine);
28        System.out.println("Fuelcapcity :"+nissan.fuelcapcity);
29        System.out.println("Fuelconsumption :"+nissan.fuelconsumption);
30
31        System.out.println("Name :"+luxus.car);
32        System.out.println("No. of tyre :"+luxus.tyre);
33        System.out.println("No. of door :"+luxus.doors);
34        System.out.println("Engine"+luxus.engine);
35        System.out.println("Fuelcapcity :"+luxus.fuelcapcity);
36        System.out.println("Fuelconsumption :"+luxus.fuelconsumption);
37
38        System.out.println("performance 1");
39        nissan.perfo();
```

```

40     System.out.println("performance 2");
41     luxus.perfo();
42
43
44
45     }
46
47 }
48
49 class car
50 {
51     String car;
52     int tyre;
53     int doors;
54     double engine;
55     double fuelcapacity;
56     double fuelconsumption;
57
58 void perfo()
59 {
60     double z;
61     z=fuelcapacity/fuelconsumption;
62     System.out.println("performance :"+z);
63 }
64
65 }

```

1)first step create m



<terminated> fourwheel [Java Application] C:\Program Files\Java\jdk-13.0.2\bin\javaw.exe (Apr 26, 2020,

```

Name :GTR
No. of tyre :4
No. of door :4
Engine2.7
Fuelcapcity :49.3
Fuelconsumption :1.7
Name :LX 570
No. of tyre :4
No. of door :4
Engine5.7
Fuelcapcity :64.3
Fuelconsumption :2.1
performance 1
performance :29.0
performance 2
performance :30.619047619047617

```

ain class

- .2)second step void main to start the main body of a program
- .3)declaring variable with datatypes as well creating down class
- .4)creating 1st object with class and print the all variable information for 1st car
- .5)creating 2nd object with class and print the all variable information for 2nd car
- .6)calling method for 1st car.
- .7)calling method for 2nd car.
- .8)using method to find performance.
- .9)calling method with 1st object for performance.
- .10)calling method with 2nd object for performance