

**Abbas khan**

**BS Software Engineering**

**Section (A)**

**I.D (16049)**

**“Object Oriented Programming”**

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**Ans.1:**

***Oops: Object-Oriented Programming***

*Oops is a paradigm that provides many concepts, such as inheritance, data blinding, polymorphism etc.*

***Object*** means a real-world entity such as a pen, chair, table, watch, etc.

***Object-Oriented programming*** is a methodology or paradigm to design a program using classes and objects. It simplifies class animal.

***Object:***

*An entity that has state and behavior is known as an object. For example; a chair, pen, table, keyboard, bike etc. It can be physical or logical.*

## **Class:**

*Collection of objects is called class. It is logical entity.*

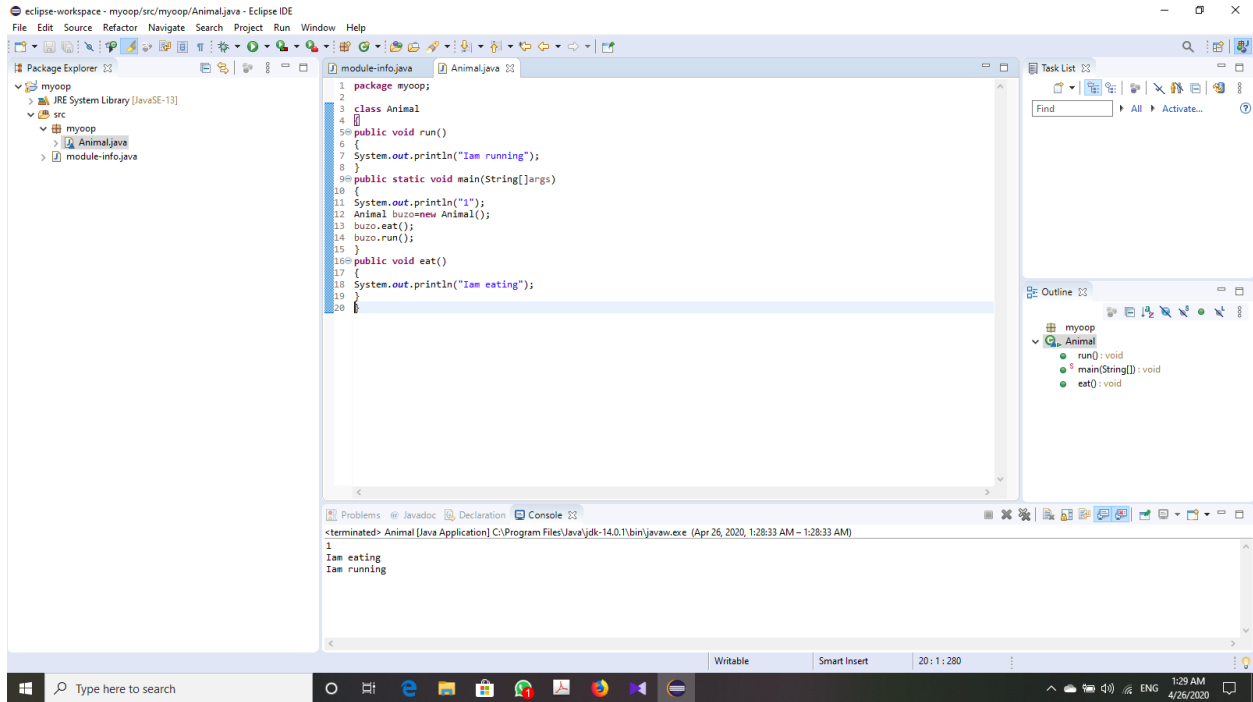
*A class can also be defined as a blueprint from which you can create an individual object. Class doesn't consume any space.*

*Now I will write a program of class and a role of object;*

## **Program:**

```
class Animal
{
public void run()
{
System.out.println("Iam running");
}
public static void main(String[]args)
{
System.out.println("1");
Animal buzo=new Animal();
buzo.eat();
buzo.run();
}
public void eat()
{
System.out.println("Iam eating");
}
}
```

Output of my program is given below:



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**Ans.2**

**Program:**

```
public class Print_Table
{

public static void main(String args[])
{

int no=2;
for(int i=1;i<=10;i++)
```

```

{
System.out.println(no+"*"+i+"="+no*i);

}

}

}

```

The output of my program is given below:

The screenshot shows the Eclipse IDE with a Java project named 'myoop'. The main editor displays the following code:

```

1 package myoop;
2
3 public class Print_Table
4 {
5
6     public static void main(String args[])
7     {
8         // TODO Auto-generated method stub
9
10        int no=2;
11        for(int i=1;i<=10;i++)
12        {
13            System.out.println(no+"*"+i+"="+no*i);
14        }
15    }
16 }
17
18
19
20 }
21

```

The console window at the bottom shows the output of the program:

```

<terminated> Print_Table [Java Application] C:\Program Files\Java\jdk-14.0.1\bin\javaw.exe (Apr 26, 2020, 1:57:03 AM)
2*4=8
2*5=10
2*6=12
2*7=14
2*8=16
2*9=18
2*10=20

```

### **Explanation:**

*In this program I first I make a class named Print\_Table then I defined a variable " no" and assign them value "2" then I took for loop by assigning initial values "1" and final value less or equal to "10" using increment operator "+" and multiplication operator "\*" I print table for " 2"*

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**Ans.3:**

**Program:**

```
public class Car {  
  
    public static void main(String[] args) {  
        // TODO Auto-generated method stub  
        System.out.println("Performance of Marsadi &  
Carolla:");  
        String a, b, s, c, w;  
        a = "Marsadi:";  
        b = " Red Colour,";  
        s = "Maximum Speed: 220 m/sec,";  
        w = "Condition: New";  
        c = a + " " + b + " " + s + " " + w;  
  
        System.out.println(c);  
        String d, e, f, n, h;  
        d = "Carolla:";  
        e = "Brown Colour,";  
        n = "Maximum Speed: 260 m/sec,";  
        h = "Condition: Used";  
        f = d + " " + e + " " + n + " " + " " + h;  
        System.out.println(f);  
    }  
}
```

Output of my program is given below:

```
1 package myoop;
2
3 public class Car {
4
5     public static void main(String[] args) {
6         // TODO Auto-generated method stub
7         System.out.println("Performance of Marsadi & Carolla:");
8         String a, b, s, c, w;
9         a = "Marsadi: ";
10        b = " Red Colour, ";
11        s = "Maximum Speed: 220 m/sec, ";
12        w = "Condition: New";
13        c = a + " " + b + " " + s + " " + w;
14
15        System.out.println(c);
16        String d, e, f, n, h;
17        d = "Carolla: ";
18        e = "Brown Colour, ";
19        n = "Maximum Speed: 260 m/sec, ";
20        h = "Condition: Used";
21        f = d + " " + e + " " + n + " " + h;
22        System.out.println(f);
23    }
24 }
25
```

Performance of Marsadi & Carolla:  
Marsadi: Red Colour, Maximum Speed: 220 m/sec, Condition: New  
Carolla: Brown Colour, Maximum Speed: 260 m/sec, Condition: Used

### Explanation:

In this program I mentioned the performance of two cars i.e. marsadi and corolla. First, I make a class named Car then, I defined 4 variables (string data types) for each car and assign them names i.e. "company name, speed, color, and condition ." Then I defined the fifth variable which concatenates all the four variables distinctly. Via this way I print the performance of the cars.