FACE

Classes and Objects

Class

- Entity binding Data member and Member methods in one single unit

- Data Member(Properties)

- Member Methods(Behavior)

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Class

In other words class is said to be a blueprint or a template.

Why we use class Framework?

Example

To build a home the first thing we need to do is,

Blueprint

Then comes the Real House

Class Name
Attribute 1 Attribute 2 ……
Method 1 Method 2 ….

Object
Heap Storage where attributes are to be stored.

```
1   //Program
2
3   Class Fan
4   {
5           blade_info;
6           motor_info;
7           switch;
8           regulator;
9           blade_design();
10          motor_design();
11          {
12          ……………
13          }
14          switch_operate();
15          speed_control();
16  }
17  Fan f;
18
19
20
21
22
```

blade_info;
motor_info;
switch;
regulator;
        These are said to be
state(Variables)

blade_design()
motor_design()
        These are said to be
behavior(action)

Fan is said to be the classname
and f is said to be the object.
The classname is the user
defined datatype.
The memory is allocated in class
declaration.

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Objects

Object is a real time entity.

Multiple objects can be created for a single class.

The object can be both non-living and living objects.

Objects can be of unique specifications and characteristic behavior or functionality.

Example

If we consider a TV

The Attributes can be display,volume

The Functionalities can be on/off and low/high.

Similarly if we consider a dog in general,

The attributes are food,breed,cost,color,reliability

The functionalities are bark.sleep,eat,walk

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Static and Non-Static Members

Static Methods

Non static Methods

```java
1   //Program
2
3   public class demo
4   {
5       int x = 90;
6       int y = 100;
7        public static void main(String
8   args[])
9        {
10          System.out.println("HAI");
11          demo obj = new demo();
12          obj.sum();
13          System.out.println(obj.x);
14          System.out.println(obj.y);
15          System.out.println("Hello");
16       }
17
18
19
20
21
22
23  public void sum()
24  {
25      int a = 90;
26      int b = 100;
27      int c = a + b;
28      System.out.println(c);
29  }
30
31
32
33
34
35
36
37
38
39
40
41
```

```java
Class A
{
    public static void main(String args[])
    {
        byte i = 10;
        byte j = 20;
        byte k = i + j;
        System.out.println(k);
    }
}
```

Output

Error: incompatible types: possible lossy conversion from int to byte

```
1    Class A
2    {
3         public static void main(String args[])
4         {
5              int i = 'd';
6              System.out.println(i);
7         }
8    }
9
10
11
12
13
14
15
```

Output

100

```java
Class A
{
    public static void main(String args[])
    {
        int i = 028;
        System.out.println(i);
    }
}
```

Output

Error

```java
Class A
{
    public static void main(String args[])
    {
        int i = 035;
        System.out.println(i);
    }
}
```

Output

29

```
1   public class A
2   {
3       public static void main(String args[])
4       {
5           System.out.println('j' + 'a' + 'v' + 'a');
6       }
7   }
8
9
10
11
12
13
14
15
```

Output

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```java
public class A
{
    public static void main(String args[])
    {
        if(true)
            break;
    }
}
```

Output

Error

THANK YOU

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