

Static Keyword

- Java Components can be of 2 levels -
 - Class level : represented by static
 - Object level : represented by non-static
- static keyword can be used with Variables, methods and block as well.
- static Variables :
 - also known as class Variables
 - A Variable is declared as static when same value can be shared by all objects of a class.
 - Only a single copy of static Variable is allocated memory, regardless of how many instances are created.
 - static Variables are used to represent common properties of all objects (for example a Company name is common for all employees).
 - static Variables can be directly accessed using class name.



Code :-

```

public class CircleApp {
    public static void main (String [] args) {
        Circle c1 = new Circle (5.5);
        c1 . findArea ();
        Circle c2 = new Circle (15.5);
        c2 . findArea ();
        Circle c3 = new Circle (25.5);
        c3 . findArea ();
    }
}

```

}

```

class Circle {
    double radius;
    static double pi = 3.14;
    public Circle (double radius) {
        this . radius = radius;
    }
    public void findArea () {
        double area = pi * radius * radius;
        System.out.println ("Area of circle = " + area);
    }
}

```



• Static methods :-

- static methods are often utility or helper methods that perform operation not dependent on object state.
- Methods which don't represent the behaviour of a specific object, can be declared as static.
- static methods, just like static variables can be accessed directly by using class name.



Code :

```
public class StudentApp {
    public static void main (String [] args) {
        Student s1 = new Student ("Dip", "Engineering");
        s1 . giveIntroduction ();
        s1 . breathe ();
        Student s2 = new Student ("Aman", "MCA");
        s2 . giveIntroduction ();
        s2 . breathe ();
    }
}
```

Class Student {

```
String name , degree ;
public Student (String name, String degree) {
    this . name = name;
    this . degree = degree;
}
```

```
public void giveIntroduction () {
    System.out.println ("My name is", +name);
    System.out.println ("I graduated in", +degree);
```



```
public static void breathe() {  
    System.out.println("Inhale Oxygen &  
    exhale Carbon-di-Oxide");  
}
```



• Static blocks :-

- executed when class is first loaded onto the JVM.
- can be used to execute a code Snippet even before execution of main()

code :-

```
public class SocialApp {  
    public static void main (String [] args) {  
        // main activities  
        System.out.println ("Scroll feeds");  
        System.out.println ("DM (crush");  
    }  
    static {  
        // mandatory before main activities  
        System.out.println ("Account Verification");  
    }  
}
```

