

Use of static & non-static

static members are connected to the class, whereas Non-static members are linked to specific class instances. I

1: Associated with

Static: Static members (variables and methods) are associated with the class itself rather than with individual instances/objects.

Non-Static: Non-static members are specific to each instance/object of a class, as they are tied to objects created from the class.

2: Memory Allocation(*)

Static: Static members are allocated memory only once, at the time of class loading. They are shared among all instances of the class.

Non-Static: Non-static members have memory allocated separately for each instance of the class. Each object has its own copy of non-static members.

3: Initialization

Static: Static members are initialized when the class is loaded into memory, typically during program startup. Initialization happens only once.

Non-Static: Non-static members are initialized when each instance of the class is created, usually using the new keyword. Initialization occurs separately for each object.

4: Usage

Static: Static members are commonly used for utility methods, constants, or variables that are not specific to individual instances. For example, a Math class containing mathematical functions.

Non-Static: Non-static members are used for instance-specific behaviour, as they hold data specific to each object. For example, instance variables that store unique values for each object.

```

package UseOf_Static_NonStatic;
public class Emp
{
    String empName;
    int empld;
    String empCEOName;    //non-static

    Emp(String name, int id, String ceo)
    {
        empName=name;
        empld=id;
        empCEOName=ceo;
    }

    public void empInfo()
    {
        System.out.println(empName+ " : "+empld+" : "+empCEOName);
    }
}

```

```

package UseOf_Static_NonStatic;
public class EmployeeData
{
    public static void main(String[] args)
    {
        Emp e1=new Emp("amol", 101, "abc");
        Emp e2=new Emp("Rohan", 102, "abc");
        Emp e3=new Emp("pallavi", 103, "xyz");

        e1.empInfo();
        e2.empInfo();
        e3.empInfo();
    }
}

```

```

package UseOf_Static_NonStatic;
public class Emp2
{
    String empName;
    int empld;
    static String empCEOName;

    Emp2(String name, int id)
    {
        empName=name;
        empld=id;
    }

    public void empInfo()
    {
        System.out.println(empName+ " : "+empld+" : "+empCEOName);
    }
}

```

```

package UseOf_Static_NonStatic;
public class EmployeeData2
{
    public static void main(String[] args)
    {
        Emp2 e1=new Emp2("amol", 101);
        Emp2.empCEOName="abc";

        Emp2 e2=new Emp2("Rohan", 102);
        Emp2.empCEOName="abc";

        Emp2 e3=new Emp2("pallavi", 103);
        Emp2.empCEOName="xyz";

        e1.empInfo();
        e2.empInfo();
        e3.empInfo();
    }
}

```