Static and Final

➢ Static Members

- Static Keyword is used for representing **Meta Data** (data about data).
- It is useful for representing the information of a class.
- Static members belongs to a class and they can be shared by all the objects of the class and all the objects have their own non-static members .
- All the object can use the static variable as a shared data.
- Static members can be accessed just by using class name.
- The static members of a class are created in the method area.
- Static methods can access only static members.

Example Program

```
class HondaCity

{
 static long price=10;
 int a,b;
 static double OnRoadPrice(String city)
 {
  Switch(city)
  {
   Case "Delhi":
        return price+price*0.1;
   case "Mumbai":
        return price+preice*0.09;
   }
  }
}
class test
{
  public static void main()
  {
```

- From the given example the "price=10" is the **meta data** of the class HondaCity.

➢ Static Blocks

- Set of statements are written in the form of blocks and are made static.
- It is used to initialise static data member.
- It is executed before the main method at the time of class sloading.

➢ Final Members

- Values of final variables are fixed, once the value is assigned then it can't be modified.
- Final variables are written in capital letters.
- Final variable can be initialised while declaring the variable, or it can be initialised in a static block, or else it can be initialised inside constructor of a class.
- As constructors can be overloaded then the final variable must be initialised in every constructor.
- Final method cannot be overridden.
- A final class cannot be extended.

Example Program

```
class My

{
 final int MIN=1;
 final int NORMAL;
 final int MAX;

 static
 {
   NORMAL=5;
 }
 My()
 {
  MAX=10;
 }
}
```

➢ Singleton Class

- A class which can create only one object is called singleton class.

- Constructors are made private to and object of the singleton class is written in static method.
- In singleton class getInstance() method is used.