**Object class in Java**

**Object class is present in java.lang package. Every class in Java is directly or indirectly derived from the Object class. If a Class does not extend any other class then it is direct child class of Object and if extends other class then it is an indirectly derived. Therefore the Object class methods are available to all Java classes. Hence Object class acts as a root of inheritance hierarchy in any Java Program.**

There are some methods in **Object** class:

**toString()** : toString() provides String representation of an Object and used to convert an object to String.

**hashCode()** : For every object, JVM generates a unique number which is hashcode. It returns distinct integers for distinct objects.

**equals(Object obj)** : Compares the given object to “this” object (the object on which the method is called).

**getClass()** : Returns the class object of “this” object and used to get actual runtime class of the object.

**finalize()** method : This method is called just before an object is garbage collected. It is called by the Garbage Collector on an object when garbage collector determines that there are no more references to the object.

 **clone()** : It returns a new object that is exactly the same as this object. For clone() method refer Clone()

The remaining three methods **wait()**, **notify()** **notifyAll()** are related to Concurrency.Please refer our Multithread topic

**Example**

**public** **class** ObjectEx

{

**public** **static** **void** main(String[] args)

{

ObjectEx objectEx=**new** ObjectEx();

System.***out***.println(objectEx.hashCode());

objectEx=**null**;

System.*gc*();

System.***out***.println("End");

Object obj = **new** String("CDAC Jaipur");

Class c = obj.getClass();

System.***out***.println("Class of Object obj is : "+ c.getName());

System.***out***.println("Class is "+c.getName());

}

@Override

**protected** **void** finalize() **throws** Throwable {

// **TODO** Auto-generated method stub

System.***out***.println("Finalize method called");

}

}

**Output**

705927765

End

Finalize method called

Class of Object obj is : java.lang.String

Class is java.lang.String