

getClass() method:

- We can use `getClass()` method to get *runtime* class definition of an object. `public final Class getClass()`
- By using this `Class` object we can access Class level properties like:
 1. Fully qualified name of a class
 2. Methods information
 3. Constructors information etc...

```
import java.lang.reflect*; // Method is present here
class Test {
    public static void main(String[] args) {
        int count = 0;
        Object o = new String("Ahmed");
        Class c = o.getClass();

        System.out.println("Fully qualified name of class: " +
c.getName());

        Method[] m = c.getDeclaredMethods();
        System.out.println("Methods information: ");
        for (Method m1 : m) {
            System.out.println(m1.getName());
            count++;
        }
        System.out.println("Number of methods is: " + count);
    }
}
```

Note:

- After loading every `.class` file, *jvm* will create an object data type `java.lang.Class` in the heap area. Programmer can use this class object to get class level information.
- We can use `getClass()` very frequently in reflections.

finalize() method:

- Just before destroying an object, *garbage collector* calls `finalize()` method to perform **clean up** activities. Once `finalize()` method completes automatically *garbage collector* destroys that object.

wait(), notify(), and notifyAll() methods:

- We can use these methods for inter-thread communications.
- The thread which is expecting updation, it is responsible to call `wait()` method, then immediately enter into *waiting state*.

- The thread which is responsible to perform updation, after performing updation the thread can call `notify()` method, the waiting thread will receive that notification and continue its execution with those updates.