

• Methods of object.

Java.lang.Object

1) toString()

- purpose

Return a string representation of the object.

- Why used.

Helpful for debugging, logging, and printing object details.

By default, it prints class name + hashCode
but usually overridden.

- Ex.

className@hashCode.

2) hashCode()

- purpose

Return an integer hash value for object.

- Why used.

Used in hashing-based collections such as
HashMap, HashSet, Hashtable.

If equals() is overridden, hashCode() should
also be overridden.

3) equals(object obj)

- purpose :

Compares the current object with another object
for logical equality.

- Default behavior :

Checks reference equality (same memory location).
Usually overridden to compare values.

4) **notify()**

- purpose:

Wakes up one thread waiting on object's monitor.

- usage:

used in multithreading along with synchronized blocks.

5) **notifyAll()**

- purpose:

wakes up all threads waiting on project's monitor.

- usage:

Also used in thread communication.

6) **Wait()**

- purpose:

causes current thread to wait until another thread calls notify() or notifyAll().

- Types:

• Wait()

• wait(long timeout)

• wait(long timeout, int nanos)

7) **getClass()**

- purpose

Returns runtime class object (class<?>) of current object.

8) clone()

- purpose:

creates and returns a copy(clone) of the object.

9) Finalize()

- purpose:

called by garbage collector before destroying object.

(Not recommended for use in modern Java)

cleanup before garbage collection.