

# Java for beginners

## Object



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## Agenda

- ① Introduction to Object class
- ② Methods of Object class

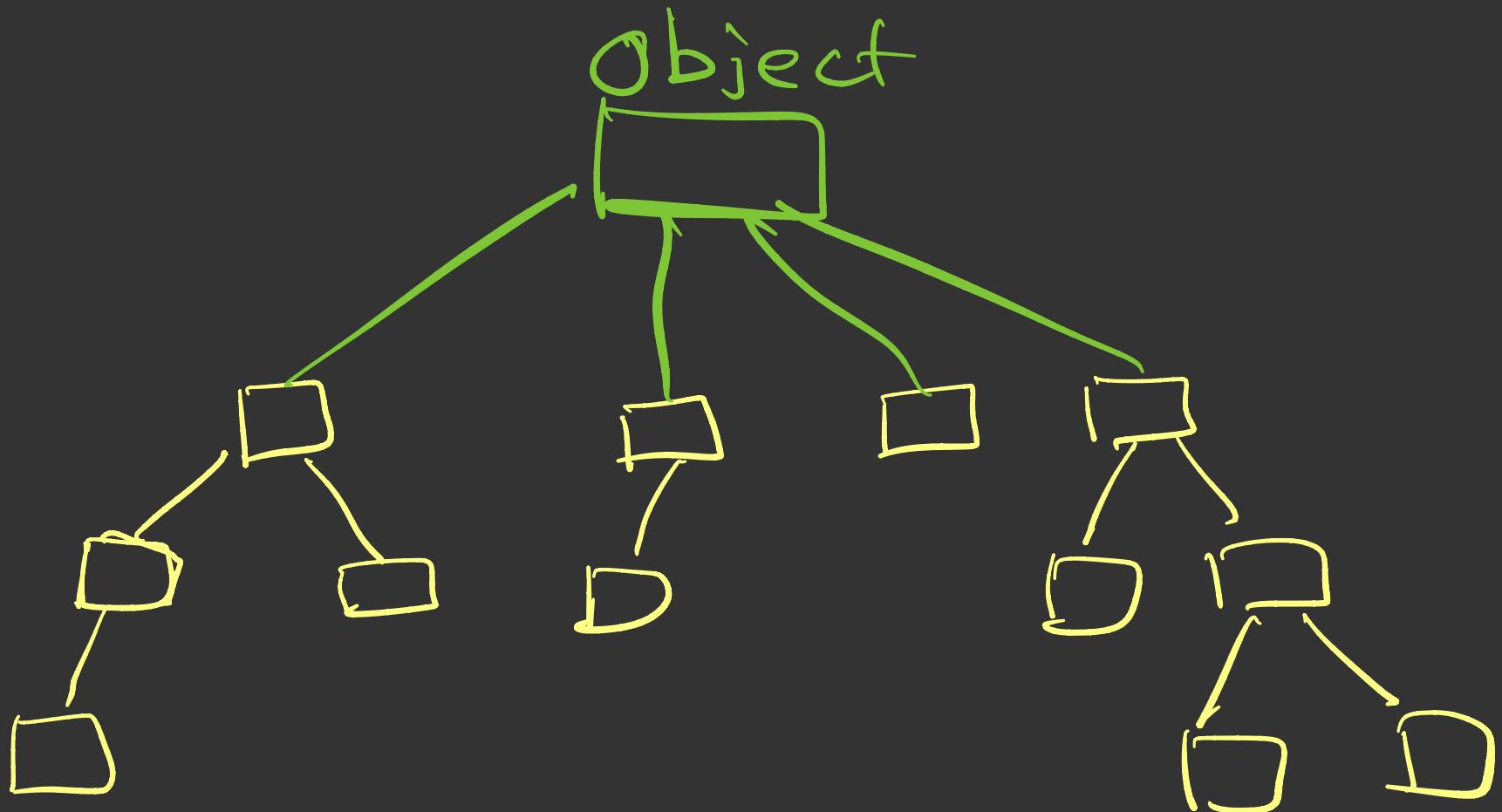
## Object

Object is a class in Java.

Every class has Object as a direct or indirect superclass. Therefore object class methods are available to all java classes.

object class is present in  
java.lang package.

Object class acts as a root of the class hierarchy.



## Methods of Object Class

clone()

equals()

finalize()

getClass()

toString()

hashCode()

wait()

notify()

notifyAll()

## toString()

This method provides a String representation of an object and is used to convert an object to a String.

The default `toString()` method returns a string consisting of the name of the class, @, and the hash code in hexadecimal format.

## hashCode()

JVM generates a unique number for every object , known as hash code.

This code is different for all the objects.

## equals()

This method is used to compare two objects.

`obj1.equals(obj2);`

it returns true when the objects are equal, false otherwise.

Although, you have to override it in your class to work for the objects of your class.

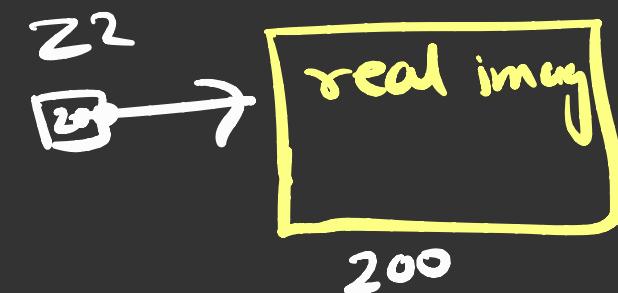
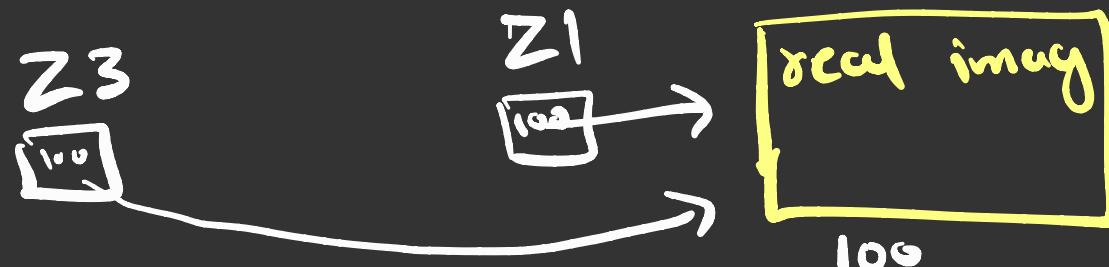
ComplexNumber z1 = new ComplexNumber();

ComplexNumber z2 = new ComplexNumber();

ComplexNumber z3;

z3 = z1;

z1 == z3  
→ true



z1 == z2 → false

# getClass()

It returns the class object of this object and is used to get the actual runtime class of the object.

It is final method.

```
class Student {
```

```
}
```

```
Student s1 = new Student();
```

```
System.out.println( s1.getClass().getName());
```

## finalize()

finalize() method invokes implicitly just before an unreferenced object is collected by Garbage Collector.

It behaves as destructor of C++.