

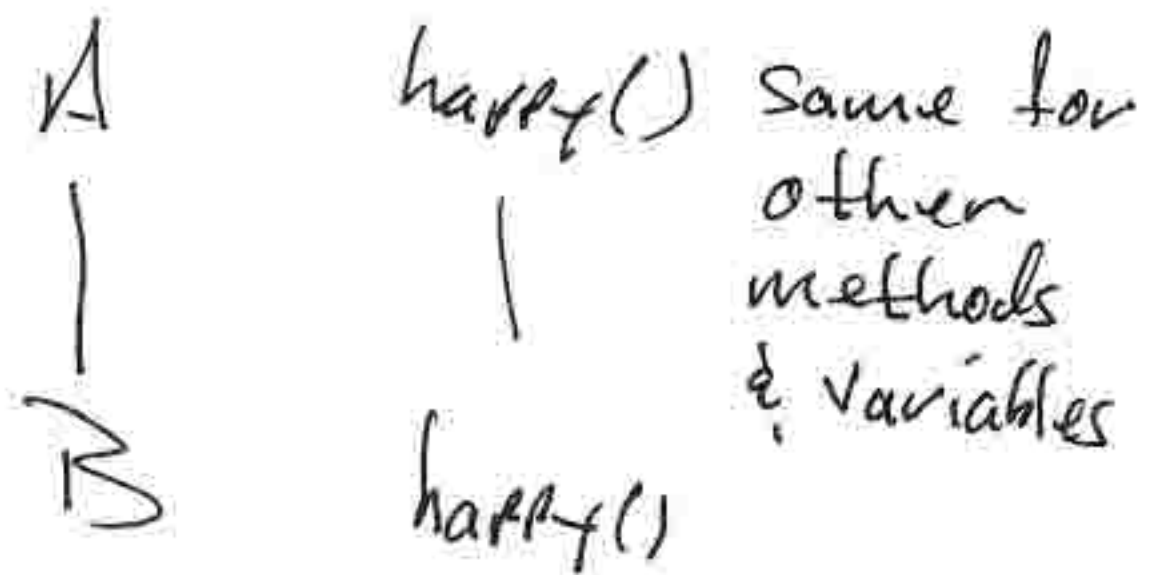
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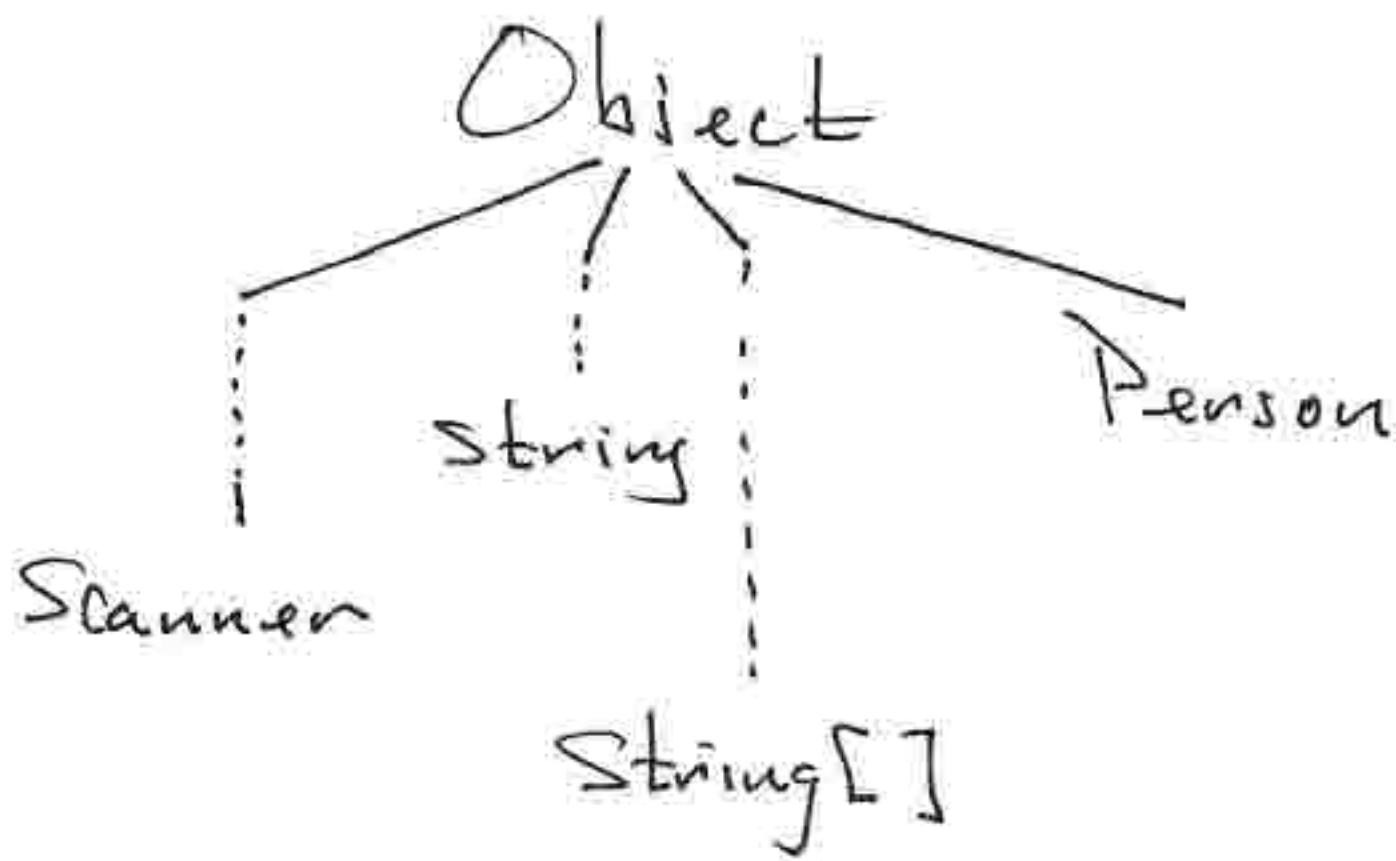
Note: Every class in java is a sub class of the Object class

Inheritance

If class A is an Ancestor of class B



all members of A are also members of B.



Object has 11 public methods & 1 constructor.

we'll mention 3:

- toString()
- equals()
- clone()

As defined in Object, toString() returns the (string rep) of the memory address of an instance of a class.

WR CAN override this definition

Note: when overriding a method from an ancestor class, you cannot narrow its access.

Java has 4 access levels

Private — narrowest

Package — default


Protected

Public — widest

- Overload: write a new method with same name. (but different signature).
- Override: Redefine a method entirely (same name, same signature).

To overload toString():

```
String toString(int x) {
    return (... same string ...);
}
```



Public no longer necessary

• equals() method as defined
in Object has signature

```
public boolean equals(Object x)
```

Default Behavior of equals():

call:

instance_of_class.equals(other_instance)

e.g. a.equals(b)

returns true (by default) iff

address referenced by a is identical to that of b

