

Objects in Java

An entity that has state and behavior is known as an object e.g. chair, bike, marker, pen, table, car etc. It can be physical or logical (tangible and intangible). The example of intangible object is banking system.

An object has three characteristics:

- **state:** represents data (value) of an object.
- **behavior:** represents the behavior (functionality) of an object such as deposit, withdraw etc.
- **identity:** Object identity is typically implemented via a unique ID. The value of the ID is not visible to the external user. But, it is used internally by the JVM to identify each object uniquely.

For Example: Pen is an object. Its name is Reynolds, color is white etc. known as its state. It is used to write, so writing is its behavior.

Object is an instance of a class. Class is a template or blueprint from which objects are created. So object is the instance(result) of a class.

Example:

```
int x = 4;
```

- "int" (integer) is the class
- "x" is the object; the object's ID is "x"
- the value 4 is its current state (or data)

The integer class is pre-defined in java. We will be creating our own classes and create objects from those classes.

Know the information on the following website:

<https://www.javatpoint.com/object-and-class-in-java>