**Object and Class in Java**

**Class**

**A Class is collection of variables and methods**

**A Class is a user defined Datatype**

**A Class is a blue print**

**Object**

**It’s an Instance of a Class**

**It is used to call the method and access the variable**

An Object has **state** (vaiables) and **behavior**(methods)

For example: chair, pen, table, keyboard, bike etc. It can be physical and logical.

**Object in Java**

Object is an instance of class

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 (tengible and intengible). The example of integible 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.

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| 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. |

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| **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. |

**Class in Java**

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| A class is a group of objects that has common properties. It is a template or blueprint from which objects are created. |