



Objects and Classes:

What is object?

Real world object has two types of components:

- a. State.
 - b. Behaviour.
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Consider two examples of objects:

1. Computer:
 - a. when it comes to state of this object then we can say that
 - i. What ram it has?
 - ii. What memory it has?
 - iii. What is the display size of the monitor?
 - iv. What is the generation of the processor?
 - v. What operating system it is using?
 - b. When it comes to behaviour of this object then we can say that,
 - a. Printing.
 - b. Drawing.
 - c. Calculating.
 - d. Playing Games.
2. Ant
 - a. When it comes to state of this object then we can say that,
 - i. How many legs does a ant has?

- ii. What color is the ant?
- b. When it comes to behaviour of this object then we can say that,
 - a. Sleeping.
 - b. fighting.
 - c. Eating.
 - d. Working.

So programing the real world objects in the form of software object is called as object oriented programming.

So a software language stores the state of the object in the form of attributes, variables.

And the behaviour is stored in the form of methods and functions.

Classes:

Classes are the blueprint used to create the objects. The class describes the data (fields/atributes/variables) and behaviour (methods/functions). And these collectively are called as class members.

If a field is static then there is only one value of that field in the memory. And that value is associated with the class itself.

If the field is not static then the field is called as instance field. and each object may have a different value stored for this field.



Static methods can't reference any instance members.
Method that operate on instance field need to be non static.