

Object

Objects are real world things. Real world objects have two characteristics

1. State
2. Behavior

If we consider dog as an object then it has state(name, colour, breed etc) and behaviors are(barking, running, fetching, wagging tail etc)
States are variables and behavior are methods.

Objects provide some benefits such as:--

1. Hiding the internal details. Interacting only with the object hide the internal implementation of the code.
2. Code re-use. If an object is already exist we can use it in some other program.
3. Pluggability and debugging easy. If an object turn out to be problematic we can simply remove it from our application and add an another object to our program.

If a bolt is broken we just replace it we don't replace the entire machine.

Class

Class are blueprint of an object. Object is created base on the class. In real world a car company can have many different kind of or brand of cars. But all the cars are made from same set of blueprint.so we can say that a car is an instance of the car object.