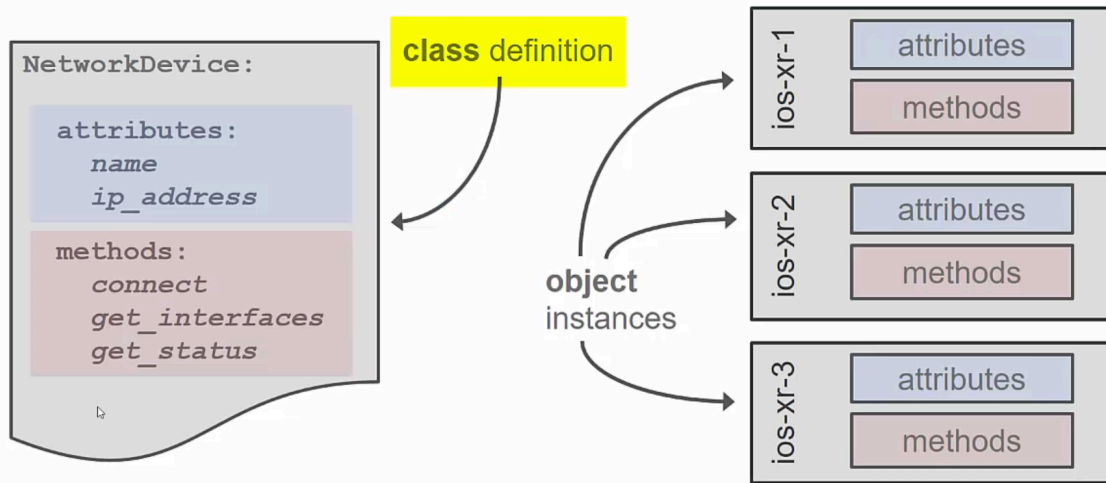


Classes and Objects

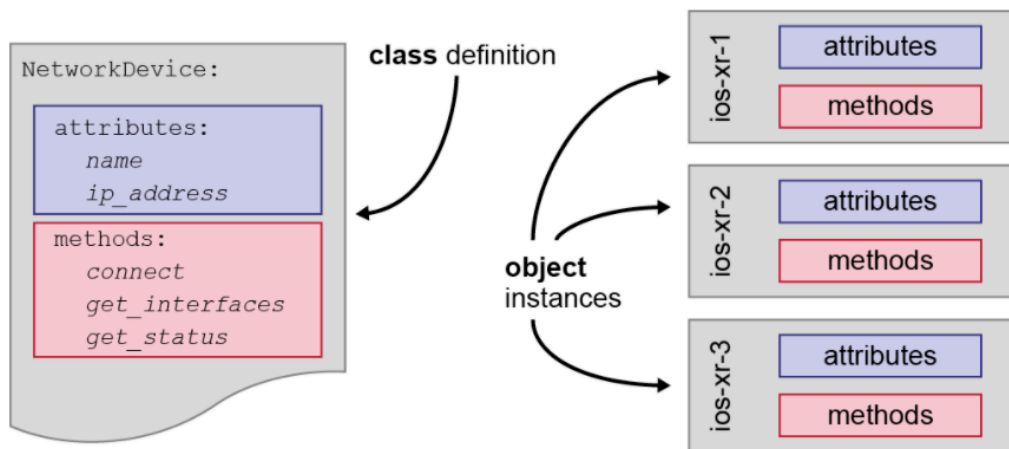


Attributes = data

Methods = functions

Methods are called to operate on these attributes

The figure below gives a graphical view of the difference between classes and objects. On the left is the class definition itself, of which there is only one. On the right are the instantiated objects that were created, using the class definition as a template.



The figure shows class definition versus object instance. The class definition on the left will describe the attributes that are contained in the object, and the methods that have been provided to implement the functionality of the class.

The object instances on the right have been created by an application, and represent actual devices in the network. Each object instance has the same set of attributes (for example, 'name', 'ip_address'), but each has its own attribute data (for example, the value of 'name' for the first device will 'ios-xr-1', the second would be 'ios-xr-2').

The object instances all have the same methods but these methods will operate on the data which is local to the specific object instance. Calling 'get_name()' on the top object would return 'ios-xr-1', calling 'get_name()' on the second object would return 'ios-xr-2', and so on.