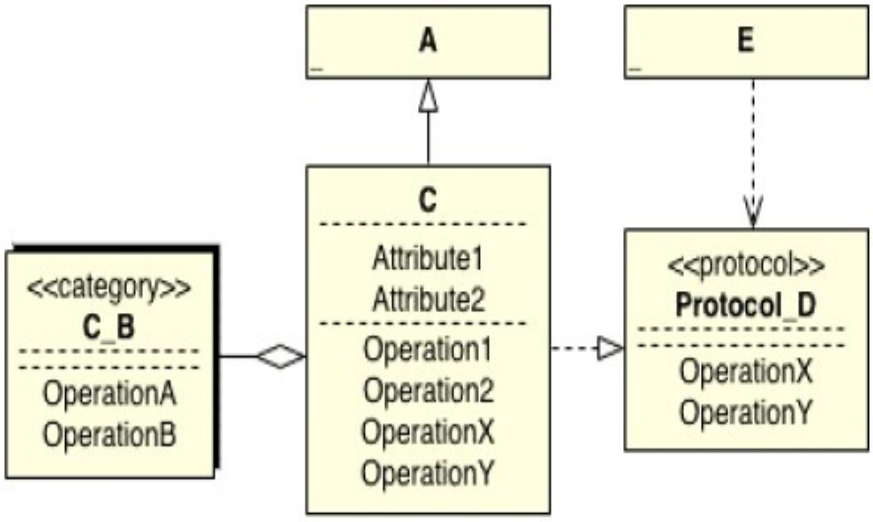
The UML class diagram below shows the object-oriented constructs in Objective-C represented by class objects and relationships.



UML Class Diagram for Objective-C Constructs

In the diagram above, the objects A, C and E represent normal classes. Class C has two attributes named Attribute1 and Attribute2 and four operations named Operation1, Operation2, OperationX and OperationY. Class A and E may also have attributes and operations, but we've chosen a suppressed presentation where they are hidden as indicated by the … in the lower left corner of the class box. The object named C_B is an Objective-C category of class C. Notice the shaded box outline and the stereotype «category». The object named Protocol_D is an Objective-C protocol represented as a UML interface with the stereotype «protocol».

In addition to various named boxes with attributes and operations, a UML class diagram connects nodes with lines indicating relationships between classes, categories and protocols.

In the diagram above, class A is a superclass of class C. Stated another way, subclass C inherits the attributes and operations of class A. This is represented in UML with a solid line from the subclass and hollow arrow pointing at the parent class.

Class C has an aggregation by reference to its category C_B. This is represented in UML as a solid line from the category object to a hollow diamond attached to class C. Think of the category as part of the C class, since other objects that communicate with an object instantiated from class C can use the new operations named OperationA and OperationB added by category C_B.

Class C implements OperationX and OperationY specified by protocol Protocol_D. UML shows that relationship with a dashed line and hollow arrow pointing at the implemented interface.

Class E depends on the interface specified by OperationX and OperationY in protocol Protocol_D. UML shows that dependency with a dashed line and open arrow pointing from E to Protocol_D.