

Abstract

Architectural pattern is the one of the most important parts in the development of a well-structured software, in this case, the code should be maintainable, readable, traceable, and modifiable. There are several architectural patterns that are available to be used by the developers. One of the most widely used is MVC (Model View Controller). The MVC pattern is also widely adopted in the development of applications in the iOS platform. However, according to the literature, the implementation of the MVC pattern violates the SOLID principles especially Single Responsibility Principle (SRP) - in this case of the implementation of the controller layer. In this paper, we propose the modification of the MVC architectural pattern in iOS application development in order to comply to the SOLID principle and reducing complexity of a particular module (layer). A comparative study was conducted by using a tool called coherent-swift (using LCOM4 as a method of measuring cohesion) to compare the level of cohesion as a measure of SRP. The result of the study shows that the modified MVC get a better cohesion level rather than the original one.