**Discussion**

First we will summarize this project, and the project is about scientific social network:

* A Scientific Social Network
* Users can make connections, form groups and interact with group members and colleagues
* A Scientific Workflow Management System
* Designed to arrange a group of computational steps and workflows in a scientific application

In the project we have implemented 8 design patterns as follows:

* State pattern
* Iterator pattern
* Builder pattern
* Adapter pattern
* Composite pattern
* Façade pattern
* Abstract factory pattern
* Template pattern

To improve the application in future work, there are three possible ways:

* Implement filter pattern for searching function.
* User can mention their friends in comment and suggestion area with “@”.
* User can mention a specific workflow in comment and suggestion area with hashtag.
* Users can effectively and efficiently manage the workflows that they have posted.