Background and Motivation

This project constructs a backend API for scientific workflows social network. In workflow-centric scientific social network, scientists can publish and share their experiments in the form of scientific workflow, and they are able to communicate on the basis of the workflow. For example, a user can create a workflow with basic information such as workflow description, tasks, inputs and outputs, links and instructions, associated datasets, then this user can add contributors (other users that contribute to this workflow) to share this workflow. Also, user can add other workflows that attribute this workflow. Furthermore, this project contains features such as user login system, user access control based on user groups, user friend list, subscribe, user profile, tagging, forums, mark post as discussion or question, mark reply as answer, moderator rights and so on.

Building a workflow-centric scientific social network allowing scientists to communicate and share their ideas of a scientific project in a more effective and productive way. They can comment on the entire workflow, and collect the ideas from the other scientists to help improve their research. Furthermore, user can organize collaborators with self-defined access control, making the whole scientific process clearer and more organized. User can tag workflows and posts, so when they are interested in a specific topic, they can go through the workflows and posts that are related very quickly. Workflow-centric scientific social network brings many benefits to the process of scientific research, and this is the reason why we devote ourselves on this project.