SE 492 - sdmay20-54

Enabling Repeatable Graph-based Experimentation and Education

Week 2 - Semester 2 Report

1/31-2/13

Client: Ben Holla

Faculty Advisor: Suresh Kothari/Payas

Team Members:

Austin Gregory - Report Manager

Peter Marasco - Communication Coordinator

Blake Mulnix - Trello Manager

Kyle Ferguson - Meeting Coordinator

Matthew Schaffer - Technical Leader

Past Week Accomplishments

- Created UI for website — Austin
  - Began construction of website HTML/CSS code
  - Created a tab-view html page which has description of project, images of graph
- Created Wrapper for website — Blake and Matthew
  - Embedded the jupyter kernel into our html, allowing the user to interact with the graph as they would in the jupyter kernel through our website
- Added containers to graph visualization — Kyle
  - Added containers which hold our graph visualizations to allow the user to interact with the whole graph, which will enable future features such as graph querying
- Added context menu options — Peter
  - Added the ability for the user to add nodes to the graph
  - Added the ability for the user to change the contents of a node

Pending Issues

- Change import/output approach for graph for future scaling (Priority)

- Refine UI/Wrapper Website (Priority)
  - Make UI look cleaner, merge the embedded wrapper into website
  - Create/discuss website domain
- Refine containers to graph visualization (Priority)
  - Make containers have more interactibility
- Add typing to graphs (genetic graphs, statistical data, software)
- Edges in graph crossing (requires overhaul of algorithm)
- Add further context menu options
- Save graphs to notebook
  - Save XML files to the notebook rather than importing each time

Individual Contributions

Team Member	Contributions	Weekly Hours	Total Hours
Austin Gregory	Final Presentation, Status Report, Develop list of features to add	13	17
Peter Marasco	Final Presentation, Develop list of features to add/manage trello	13	17
Blake Mulnix	Final Presentation, Develop list of features to add	14	18
Matthew Schaffer	Final Presentation, Develop list of features to add	13	17
Kyle Ferguson	Final Presentation, Develop list of features to add	13	17

Plans for Next Week

- Even More Changes to Menu Options for nodes - Peter

- ○ Allow on-click menu options for nodes to provide additional information/utility
- ● Overhaul Graph Import/Export Approach - Blake/Matthew
  - ○ Begin an overhaul of graph import/export for future scalability
  - ○ Use JSON/Java Objects to store graphs
- ● Add containers to graph visualization - Kyle
  - ○ Wrap graphs in a container which can be moved/managed as a whole
- ● Refine UI/Wrapper Website - Austin
  - ○ Enhance design of website UI
  - ○ Embed graph visualization in website