EE/CprE/SE 492 BI-WEEKLY REPORT 1

1/25/21 – 2/8/21

Group number: SDMAY21-26

Project title: Automated Configuration Testing Framework for KBase

Client &/Advisor: Myra Cohen

Team Members/Role:

  Daulton Leach: Scrum master / Developer

  Hunter Hall: Development

  Sergey Gernega: Development

  Caleb Meyer: Development

  Jake Veatch: Development

  Daniel Way: Development

- **Weekly Summary**
  This week the team regrouped following our extended break. We discussed the current state of the project, our next steps, and overall strategy as we move into the second semester. We discussed upcoming features including Dockerizing our application. We started planning our weekly meeting times as well as milestones for the semester. We started developing to work towards our first two week sprint for this second semester. Each team member selected an issue to begin working on for the next sprint. We will discuss our goals for our first sprint with our advisor and make sure the requirements for the project have not changed since last semester. The overall objective for the week was to get back into the flow of senior design and begin developing new features to our existing prototype for our next sprint.

- o **Past week accomplishments**
    - ᐧ Daniel Way: Reviewing project state, reviewing issues, beginning work on logging.
    - ᐧ Jake Veatch: Becoming more familiarized with the previous state of the project. Picking up old tasks in the backlog from last semester. Ideated new tasks that will aid in the project setup for this semester.
    - ᐧ Caleb Meyer: Review project, identify problems and future plans. Discussed plans with teammates. Refamiliarized self with project structure, Kbase formate as well as selenium API.
    - ᐧ Sergey Gernega: Identified current and pending issues regarding projects before and after break. Reviewed selenium framework documentation to help accomplish future plans. Review project structure, locate potential areas to refactor previous code implementations
    - ᐧ Hunter Hall: Identifying potential problems in the project to discuss with the client.
    - ᐧ Daulton Leach: Planned weekly meetings with the team and advisor. Prepped the team for our PIRM meeting. Began developing functionality for KBase to read variable inputs from a file to then be input by selenium to run our flux balance analysis tests. Began developing functionality to add in the remaining FBA variables that were not already added in.
- o **Pending issues**
    - ᐧ Daniel Way: Determining which logging framework to use.
    - ᐧ Daulton Leach: Determining the best sampling methodology to use and how to go about constructing it. Deciding what types of files we want our users to be able to input data in.
    - ᐧ Sergey Gernega: N/A
    - ᐧ Caleb Meyer: N/A
    - ᐧ Hunter Hall: N/A
    - ᐧ Jacob Veatch: N/A

- o **Individual contributions**

NAME	Individual Contributions	Hours this week	HOURS cumulative
Daniel Way	Adding detailed logging.	7	7
Jake Veatch	Update installation and README documentation for project setup and running. Research creating a Docker container for the application to run on any user's machine.	7	7
Sergey Gernega	Add multiple gene knockouts as when users enter input. Refactoring previous code.	7	7
Daulton Leach	Planning meetings, Adding ability to read	8	8

	KBase inputs from a file, Adding in remaining variables and their functionality in the GUI		
Caleb Meyer	Refactor code. Identify HTML tags for automation.	7	7
Hunter Hall	Automated user inputs on the Kbase site and the custom GUI form.	7	7

- o **Plans for the upcoming week**

  ・Daniel Way: Continue with detailed logging, implement reactive UI updates.

  ・Daulton Leach: Begin constructing random sampling methodology, Add in the ability to read inputs from a file then send those inputs to the selenium web driver.

  ・Caleb Meyer: Fix code misplacement.

  ・Jake Veatch: Create a Docker container for the application to run on any machine. Update README to show steps for installing and using the application with a Docker container.

  ・Hunter Hall: Add more input variables on the GUI form.

  ・Sergey Gernega: Work on adding multiple gene knockouts, and possible refactoring.

- o **Summary of weekly advisor meeting**

Reviewed current progress and planned next steps. Discussed updates to the current KBase system. Discussed new inputs that are desired to be added to the program. Discussed the benefits of Docker for setup and running of the application. Discussed random sampling of testing and the uses of random sampling for testing KBase. For our next iteration we need to add the rest of the configurable variables to the GUI/Selenium driver. We discussed everyone's plans for the upcoming iteration and made sure everyone was clear on the plans for the short term development of the project. We reviewed the progress made last semester and decided what issues we need to take on for the next sprint.