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Bi-Weekly Report 2 - CPR E 491
Professor Myra Cohen

DNA To Feature Models

The following report entails the progress of the senior design team for the project, DNA to Feature Models, in the past two weeks. The team has achieved a stronger understanding in generic Feature Models and how to build them from bottom-up. The team is progressing in a way such that each member is working on a subset of the project that gives us hands-on experience with Feature Models, and allows us to discover some weaknesses and where each member fits best. The project foundations are coming together and hence, the next bi-weekly report will include a significant completion step.

Abdul Rahman El Moughrabi

Throughout the two weeks after the previous report, I kept working on understanding the project as a whole. I tried to get some practice with eclipse plugins, viewing the Bio Bricks respiratory, and coding with Java/XML. My group and I decided to divide the project into five parts, and I have been appointed to the web scraping segment of the project. To get myself comfortable with what I will be doing the next two semesters, I did some research on how to do web scraping, ways we can extract user-readable data from the respiratory we are given, and software design. The other thing I spent some time doing was downloading some feature models and implementing/ editing them in eclipse. I now have a basic understanding of how these model features are implemented and how we will be using them for our project. This is how I want to approach this project by first recognizing how everything works and the little details of all the project aspects will help me better do my part with minimal error and time.

Total Cumulative Hours: 5 hours

Ahmad Nazar

These past two weeks, I dedicated myself to understanding generic Feature Models with n-features. This step allowed me to invest time in further broadening my knowledge on how to build feature models given a set of features. Another portion of my time was spent analyzing the relationships in forming/adding features and their inherent characteristic in a feature model; this step also envisioned the formation of these models in a .xml file. I now understand the heuristics of a Feature Model and have started implementing a parser that creates a .xml file given a file input with a family of features and their respective relationships. I am currently on hold with this program because our project advisor's research assistant has created a web scraper for the online

BioBricks Repository, and will introduce us to this program in the next advisor meeting; I would like to understand the logistics of this program first before proceeding with further steps.

Total Cumulative Hours: 6.5 hours

Ahmed Alketbi

In the previous two weeks, we dived more into the practical part of the project after we grasped a foundation on the project. During the first week, we decided to familiarize ourselves with the required material and tools we need so I invested my time to learn how information are organized in the BioBrick repository to get an idea of how we can pull the information. During the 2nd week, we decided to utilize some of our previous skills to split the project into parts. My job was to familiarize myself with featureIDE and process the provided XML files that describe the feature models. Our next goal is to meet with Mikaela Cashman, a research assistant with prof Cohen, to get an idea of the tool she made for the project and how can we start.

Total Cumulative Hours: 5 hours

Hyegeun Gug

For the last two weeks, I went through the project documents and journals provided by Professor Myra to fully understand what our project will be more focused on. This helped me get familiarized with models used and what represents throughout the previous programs. Another thing i tried to work on for our project was actually going through the program that Professor Myra's research assistant made, which is a web scraper for the BioBricks Repository. I still couldn't fully understand the program so hopefully by the next Tuesday, meeting with a graduate student would help me move forward. I also tried to finalize our website as simple but efficient to approach and descriptive enough for other people.

Total Cumulative Hours: 5.5hours

Prathik Nair

These past few weeks I have been re-familiarizing myself with eclipse, eclipse plugins, and the BioBrick repository; I have a good understanding of what the scope of our project is, but I still have some questions regarding the final output of our program. Once the web scraper pulls in information from the BioBricks repo and pairs it with the data we have in the plugin, what do we expect to see? This is a question I plan to bring up in the next advisor meeting. I do believe I need to spend more time actually working on the project in the coming weeks. I have spent most of my time training myself and researching, but it is time to become more useful!

My plan this week is to get an idea of what part of the project my group wants to delegate to me, and actually start working on that in the coming weeks.

Total Cumulative Hours: 4.0 hours

Plan of Action:

1. By next reporting, we will work on our design document report.
2. Start familiarizing with feature IDE, after meeting with graduate student
3. Try testing, analyze and look into xml files used in the Eclipse IDE