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Derrick Yee's Individual Contribution Page

Fall 2013 Contributions

I am currently a Computer Science Major on the Design Team. Through the semester of Fall 2013, I focused on improving software engineering practices throughout the AguaClara files and code repositories. This included implementing a streamlined process in documenting code, increasing efficiency in methods, and looking into upgrades to the current software. In addition, I went in depth of a project to create a plant cost calculator on the AguaClara website.

From analyzing the documents within the AguaClara design folder, a documentation guideline was created in order to improve understanding from member to member of the AguaClara team. This project was to help improve software engineering practices throughout all of the code on the server.

The second task was to analyze the layout of the code on the server of the EtFlocSedFi files, which is compilation of all of the methods throughout the design folder. This consisted of analyzing how the code is exactly referencing each other in order to improve efficiencies. It was concluded that the references were not going to be able to call one another in MathCAD 15.0, and looking how to upgrading to MathCAD Prime 3.0 was the next task. The next step would to check whether the files on the server would work probably in the new program.

Finally, the final project was to create a plant cost calculator to share the cost information from the website and to make this information more visible. In designing the plant cost calculator, the design portion was separated into three different sections. The first was to determine the user needs. In this case, the user needs to receive information regarding the plant cost estimation. The user will be providing the input so that they will have a good idea on the cost estimate of the plants to make an informed decision. The second step was to determine how the data will be received and calculated. In this case, there is a separate MathCAD file that has the calculations, but determining how the website will pull the information is an extremely important step. The final step in the design process was creating a design that fits the user needs determined from step one and how to organize the information from the second step. A full prototype was calculated, but the next step would be to implement the design into the website.