EE/CprE/SE 492 WEEKLY REPORT 11/08
January - December
Group Number: 1
Project Title: Applying and Evaluating Blockchain in Energy Delivery Systems
Client: Grant Johnson
Advisor: Dr. Gelli Ravikumar
Team Members/Roles:
Owen Snyder - Frontend/UI Developer
Josh Edwards - Backend API Developer
Emileo Xiao - Testing/Evaluation Lead
Dylan McCormick - Lab Integration Lead
Thai Pham - Blockchain Lead

Weekly Summary (Short summary about what the group did for the week. This should be about a paragraph in length. These are just a few questions to help you get started. What was the overall objective for the week? In general, what tasks were completed? Were there any changes made to the project?)

Overall objective of the week was to do a code review after taking time to work towards a sample implementation using a few tools we had talked about with our advisor. We are still working on getting our blockchain network set up and running so that we can combine our implementations.

Past week accomplishments (Please describe/summarize as to what was done, by whom, when and, collectively as a group. This should be about a paragraph or two in length. Bulleted points are acceptable as well. Please keep only your technical details related to your project. Figures, schematics, flow diagrams, pseudocode, and project related results are acceptable, but please ensure that they are legible (clear enough to read) and to provide an explanation. If researching a topic, please add a few details about what was learned and how it is relevant to the project. If two or more people worked on a single task, be sure to distinguish how each member contributed to the task. Specific details relating to the assistance provided to other members may be included here. Do not include classwork, such as individual reflection assignments, and group meetings as part of your duties.)

Owen Snyder - Began prototyping the UI and becoming more familiar with ReactJS Development
Josh Edwards - Learning about React and ExpressJS to make the API endpoints and how to deploy said endpoints within the Linux VM's that have been provided.
Emileo Xiao - Hyperledger Caliper returns a benchmark report that returns data based on the tests it has run on the tutorial blockchain. Created the flowchart diagram of our work using VMs and the different softwares.
Dylan McCormick - Worked on setting up and configuring smart contracts that can interact with our api and client.
Thai Pham - Implementing/Designing network environment to deploy the smart contracts and to connect the endpoints.

Pending issues (If applicable: Were there any unexpected complications? Please elaborate.)

Owen Snyder - N/A
Josh Edwards - N/A
Emileo Xiao - N/A
Dylan McCormick - N/A
Thai Pham - N/A

Individual contributions (Creating this section is optional, but it is Required to include the "Hours Worked for the Week" and their "Total Cumulative Hours" for the project for each member somewhere relevant in your report. Your individual weekly hours should be at a minimum of 6-8 hours for this course. So please manage your time well. Also, ensure that
individual contributions support your claim to the weekly hours. Be honest with the reports.) NAME Individual Contributions (Quick list of contributions. This should be short.)

Team Member	Contributions	Weekly Hours	Total Hours(from this semester)

Owen Snyder	Research on UI Implementation	4	24.5
Josh Edwards	Continued Python Websockets, Packaging and forwarding data to API	3	22
Emileo Xiao	Worked with Thai to expand the blockchain	6	26
Dylan McCormick	Troubleshooting of docker and smart contracts. Configuring smart contracts/possible applications.	12	38.5
Thai Pham	Researching and going through HyperLedger-Fabric documents as well as old team's code to learn how to create chain code.	6	28

Comments and extended discussion (Optional)
Feel free to discuss non-technical issues related to your project.

Plans for the upcoming week (Please describe duties for the upcoming week for each member. What is(are) the task(s)? Who will contribute to it? Be as concise as possible.)

Owen Snyder - Get an initial working version of the UI implemented with a simple dashboard. Discuss with Emileo and Josh about specific design decisions to

determine what data the UI will need to display and how it will be communicated through the entire system.

Josh Edwards - Finish the API endpoints, begin talking with Thai about what format the requests need to be in for the Smart Contracts to be able to execute efficiently.

Emileo Xiao - Discuss with Owen on how he wants to format the benchmark report data that is returned from Hyperledger Caliper on the frontend UI. Try to create more elaborate benchmark tests.

Dylan McCormick - Spent a lot of time debugging docker/smart contract issues and setting up configuration for smart contracts to function with our client/api implementations.

Thai Pham - After implementing network and chain code to run the block chain, plan to integrate with the smart contracts to bring through the meat of the project.

Summary of weekly advisor meeting (If applicable/optional)
(Provide a concise summary on the contents and progress made during the advisor meeting.)

We met with our client and advisor. Went through a code review and example implementation so that we could use it to tweak our project to be a bit better and continue to line up our goals and expectations with where we want to be.