EE/CprE/SE 492 WEEKLY REPORT 2

1/30/2025 – 2/12/2025

Group number: 42

Project title: Grid GPT 2.0 AI Virtual Assistant

Client &/Advisor: Dr. Gelli

Team Members/Role:

Luke Eitzmann - Power Co-Lead

Ian Louis - Power Co-lead

Scott Rininger - Power Co-lead

Aditi Nachnani - Full Stack AI Co-Lead

Ian Bussan - Full Stack AI Co-Lead

- ○ **Weekly Summary**
  - ● We got together as a group and created a game plan for our client meeting. The Grid team looked into openDER and did market research on DSOs and their function. The AI team continued the development of the docker application and fixed current issues with the build. The AI team also looked into setting up the VM in Linux for custom configurations. The team scheduled a meeting with Mahmoud Gnash to discuss our progress towards our goals.

- ○ **Past week accomplishments**
  - ● **Luke Eitzmann**: Accumulated OpenDER examples files. Practiced and experimented with their uses.
  - ● **Ian Louis**: Ian looked into openDER. He familiarized himself with the functions of openDER. Ian also looked into integrating altDSS with openDER. He found a way to integrate them by creating DER files using altDSS and passing them to openDER
  - ● **Ian Bussan**: Ran docker in the VM machine for Linux, and configured the VM machine to support the project. Continued building the DB_GPT, added Go backend for AI query and Swagger documentation.

- **Aditi Nachnani**: Aditi worked on a bug in the current GridAI application which was not letting users upload zip files. She also looked into setting up the VM since the application was not running on her local machine. And she is currently working on solving another issue which results in an internal server error when a user tries to upload a zip file.
- **Scott Rininger**: Scott did market research on DSOs to further the grid teams understanding of their markets, processes, and services

o **Individual contributions**

NAME	Individual Contributions *(Quick list of contributions. This should be short.)*	Hours this week	HOURS cumulative
Ian Bussan	Ran the Docker application in VM. Updated the DB_GPT to support the Go backend.	8	12
Ian Louis	Researched openDER and how the python library works. He came up with a plan to integrate altDSS with openDER. He began programming a script for this integration.	8	12
Aditi Nachnani	Fixed a bug; Set up the VM; Working on a 500 internal server error issue	8	12
Luke Eitzmann	Gathered OpenDER examples files for the team to use for practice and research.	8	12
Scott Rininger	Performed market research and presented the findings to the team	8	12

o **Plans for the upcoming week**
- **Luke Eitzmann**: This week's agenda is to work with fellow member Ian Louis to learn about the uses of OpenDER and discover new ways to implement and integrate with our code.
- **Ian Bussan**: Continuing to implement DB_GPT, including connecting the frontend API call to the Go backend. Also, correctly setup the VM to support the Linux configuration and custom configuration to make development easier.
- **Aditi Nachnani**: Aditi will continue working on the 500 internal server errors. After that is fixed, I will work on building the UI for dss_gpt. If that error takes longer than anticipated to get fixed, then I will work on building the dss_gpt with LangChain.
- **Ian Louis:** Ian will continue working on DSO_GPT. His goal is to finish his script to integrate openDER with altDSS for the next meeting.
- **Scott Rininger:** Scott will be using his knowledge gained from market research to

create a classification on the needs DSOs have to best strategize for dso_gpt.

- o **Summary of weekly advisor meeting**

  - Our team met with Dr. Gelli on 2/7 to discuss our progress so far this semester. Ian Louis and Luke Eitzmann discussed his progress with adding OpenDER functionality to DSO_GPT. Dr Gelli gave Ian and Luke some feedback on their approach to speedup the process. Scott gave a presentation on the findings from his market research. The AI team got feedback on how to set up the Linux VM configurations and best docker development practices.