

SD MAY 25-43

**GRID AI: BUILDING A USER-FRIENDLY GRID VISUALIZATION AND WEB-INTERACTIVE INTERFACES FOR THE GRIDAI ELECTRIC POWER GRID MANAGEMENT SOFTWARE**

**DR. GELLI RAVIKUMAR – PROJECT CLIENT**

**JESUS SOTO – WIDGETS DASHBOARD DEVELOPER**

**RANGSIMUN BARGMANN – WIDGETS DASHBOARD DEVELOPER**

**SKYLER KUTSCH – SVG DIAGRAMS DEVELOPER**

**FRANCK NDOUTOUME – CODE EDITOR DEVELOPER**

**HANG KIM THANG – MAP BOX DEVELOPER**

**JUSTIN SOBERANO – MARKET DASHBOARD DEVELOPER**

**Weekly Summary**

*This week mainly focused on learning Firebase to integrate it into the front end. After last week's meeting, each action item has a good starting point for a backend schema. Thus, this week's aim was to make steps towards integration with the backend. The main goal was learning how the existing code base makes calls to Firebase and adapting that to each member's component. This required a lot of coordination and troubleshooting with the graduate student advisor and will be the main focus of next week's meeting.*

**Past week accomplishments**

- **Jesus Soto:** Enhanced the widgets data schema according to research on the Thingboard IoT platform and insight given by the clients. Worked on the widgets integration of Firebase.
- **Rangsimun Bargmann:** I finalized the first iteration of the Firebase schema to store dashboards in the backend. Additionally, I was able to successfully integrate with Firebase to retrieve dashboard data from the backend. Users can now have dashboards that are persistent when reloading the webpage.
- **Skyler Kutsch:** Implemented the ability to recover recently deleted graphs and a new component to view and edit diagrams from the diagrams list.
- **Franck Ndoutoume:** Updated and Created comments and chatMessage Collection in Firebase.
- **Hang Kim Thang:** Created a file for the data display on side navigation, tested on a separate program to make sure it's working.
- **Justin Soberano:** Implemented the dashboards for the ISO and DSO stakeholders. Started to implement many reusable components between the different dashboards.

## Individual contributions

<u>NAME</u>	<u>Individual Contributions</u> <i>(Quick list of contributions. This should be short.)</i>	<u>Hours this week</u>	<u>HOURS cumulative</u>
Jesus S.	Enhanced Widgets data schema and Firebase integration.	15	21
Rangsimun B.	Finalized first iteration of dashboard schema, successfully implemented calls from the frontend to the backend.	14	20
Skyler K.	New features which are recover deleted files, view file info, and edit file info. Created one new component for view/edit and one for recovering files.	6	12
Franck N.	Updated and Created comments and chatMessage Collection in firebase.	15	21
Hang Kim T.	Finished implementation for data display, need to merge in current to project.	12	12
Justin S.	Implemented Stakeholder Dashboards Implemented reusable components	6	12

### ○ Plans for the upcoming week

- **Jesus Soto:** Finalize Firebase integration for widgets, ensuring a smooth transition and proper testing. Start the integration of widgets and dashboards.
- **Rangsimun Bargmann:** I need to add some additional routes for creating, deleting, and modifying dashboards (post, delete, and put). And familiarize myself with the Babel library for rendering code in real time for widget retrieval.
- **Skyler Kutsch:** Create dynamic data files that will feed the SLD react app dynamic data about the nodes. Create new card displays and options for the dynamic node data. Finalize recovering deleted graphs feature.

- **Franck Ndoutoume:** Test db operations(Perform real-time updates through firestore listeners) Deploy and Optimize(Review indexing for performance and finalize firestore integration into application ).
- **Hang Kim Thang:** To make sure API calls are working, and have improvement on the page.
- **Justin Soberano:** Start on making the design between the dashboards more streamlined and inspired by Google Cloud Platform Control Panel.

### **Summary of weekly advisor meeting**

Overall, the client was happy with the progress we have made with each action item's integration into Firebase. By the next meeting, there should be successful routes and endpoints for calling the backend from the frontend application. Additionally, there should be some coordination between the dashboard and widgets action items for handling data in Firebase, such as how the different Firebase collections will interact on the backend when fetching dashboards and widgets.

### **Weekly Meeting Notes**

We presented our progress slide deck without much feedback. We are working on Firebase integration and progressing our action items.