Milestone 5 Report

Engicoders
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- **(2%) Update the requirement document, including:**
    - **A brief description of the software you are building**
    - **A list of user groups for your software, along with an example scenario for each user group of how they will use the software**
    - **The final list of requirements of the software that was built. Incorporate feedback from M2.**

Status of Software Implementation

Implemented Requirements

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- Sign up
- Sign in
- Upgrade
- Select data from api and use
- Filter data
- Select visualization type
- High low limits
- Alarm mngmt
- Prediction
- Display results
- Export results
- Alarm log
- Export alarm log
- Signout
- Premium upload

- Seamless selection from API
- The webpage should run on any modern device, including mobile.
- The prediction algorithm should not take more than 1 minute to process future data
- User input data must be securely stored, as it could include confidential information
- The webpage must be able to handle multiple user interactions at the same time

Unimplemented Requirements

Initially, our project intended to allow users to input or select multiple sensors to visualize in the end. Unfortunately, we could not implement this into the program due to time

constraints as well as it would cause difficulties with the way our project takes inputs from users. We also intended to have preset data from an API in a list for users to easily select, but now we make the users get the channel and route id from a public channel in thinkspeak to access data to use in the program. Finally, the users are not able to manipulate the axis of the charts since that can not be implemented with the selected chart import. Chart.js automatically chooses the best axis to view the input data anyways.

Backlogged Tasks

When problems arose with user stories and tasks that were either changed, or not possible, the tasks were altered and implemented or marked as not feasible and closed respectively. This left no tasks in the backlog by the end of the project, but the notable unfinished or changed tasks are: task #34 multiple sensors which was marked as unfeasible, task #109 and #132 which changes the preset data list to inputs from the user which gets data from thinkspeak, and task #259 axis manipulation which was marked as unfeasible and unnecessary due to chart.js doing the work anyways.

System Architecture

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Code Reuse

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Known Bugs with Solution

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- How many of your initial requirements that your team set out to deliver did you actually deliver (a checklist/table would help to summarize)? Were you able to deliver everything or are there things missing? Did your initial requirements sufficiently capture the details needed for the project?
- If you have any requirements unimplemented, you will want to include an extra section showing those requirements have not been implemented.
- If you have a requirement that is partially working but feel that there's enough you don't want to call the whole requirement as incomplete, then break it up into two requirements, with one shown as tested and working, while the other is shown as not working.
- How many tasks are left in the backlog?
- What is the architecture of the system? What are the key components? What design patterns did you use in the implementation? This needs to be

sufficiently detailed so that the reader will have an understanding of what was built and what components were used/created. You will need to reflect on what you planned to build vs what you built.
- What degree and level of re-use was the team able to achieve and why?
- Indicate any known bugs in the software.
- Explain how these bugs can be fixed.

Project Handover

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- Installation details needed to deploy the project
- Dependencies needed to deploy the project
- Any maintenance issues required to run the project (e.g., account information)

Reflections

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1. How did your project management work for the team? What was the hardest thing, and what would you do the same/differently the next time you plan to complete a project like this?
2. Do you feel that your initial requirements were sufficiently detailed for this project? Which requirements did you miss or overlook?
3. What did you miss in your initial planning for the project (beyond just the requirements)?
4. Would you (as a team) deal with testing differently in the future?
5. If you were to estimate the efforts required for this project again, what would you consider? (Really I am asking the team to reflect on the difference between what you thought it would take to complete the project vs what it actually took to deliver it).
6. What did your team do that you feel is unique or something that the team is especially proud of (was there a big learning moment that the team had in terms of gaining knowledge of a new concept/process that was implemented).