Individual Weekly Report

Name: Abdiel Rivera
Team: Bray IIoT Smart Solutions
Date: 2/3/2025

Current Status

1. What did you **personally** work on this past week?

Task	Status	Time Spent
Lo-fi prototyping	complete	1 hour

Include **screenshots/graphics** to illustrate what you did this past week:

415.2 Lo-fi Prototyping

Fig 1. Lo-fi Prototype of Dashboard

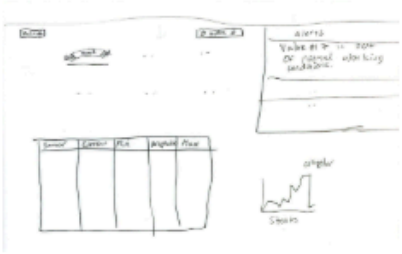

Fig 2. Lo-fi Prototype of Dashboard

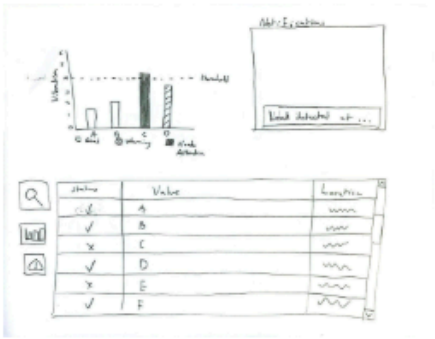

Fig 3. Lo-fi Prototype of Dashboard

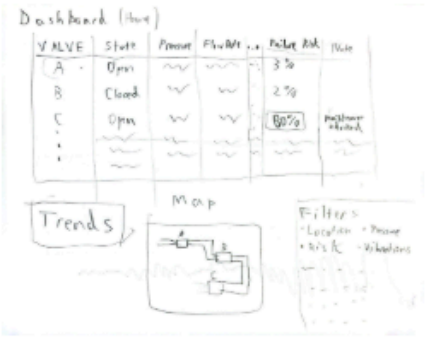

Fig 4. Lo-fi Prototype of Dashboard

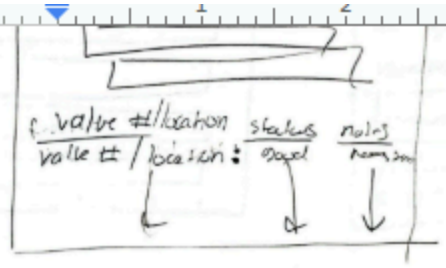

Fig 5. Lo-fi Prototype of Dashboard

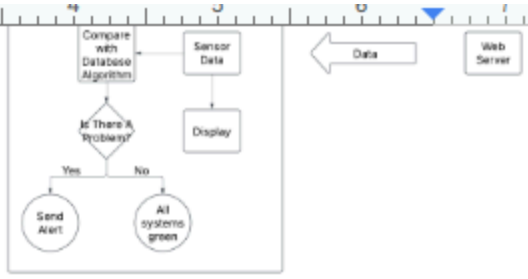

Fig 6. System Diagram

Considering the nature of our project, we believe that simplicity would need to be one of the key features of our user interface. As can be seen from the multiple Lo-fi prototypes of our web application's dashboard, the user should be able to open up the app and immediately see all the pertinent information that comes with maintaining a valve system. As part of our project, we will need to implement a sensor that could detect issues with a specific valve and alert the user in the event of abnormal activity. As such, being able to see the status of all valves and receive alerts in the event that a valve does fail are must haves for our web application. Additionally, the web application will be able to display collected data to the user in the form of charts or graphs so that any trends can be taken note of. Also, the user should be able to view the status of any specific valve within their system. As the project develops, these features might increase in scope, but the core idea is what will be expanded upon by the final product.

As for the system behind such a project, this is detailed in our system diagram as seen in Fig 6. The valve will have a sensor attached to it that will process the raw data to minimize the presence of noise. Afterwards, the data will be sent via transmitter to a receiver that is server-side. Once the server receives the data it can then analyze it to determine whether the sensor is detecting any abnormal behavior such as a leak. If the system does detect a problem, it will alert the user and send some kind of notification as shown in the Lo-fi prototype. In addition, the server will contain previously collected data that the web application will display for the user as well as any other relevant information.

2. What problems did you run into? What is your plan for them?

   Our team has yet to get in contact with Bray so it is difficult to write the report and make plans for what to do when we don't completely know what we are doing.

3. What is the current overall project status from your perspective?

   The project is at an impasse until we can get in contact with Bray, but by looking at the previous team's report we are closer to gaining an understanding of what our project entails

4. How is your team functioning from your perspective?

   Our team is getting along great and we are all very proactive about getting assignments done on time.

5. What new ideas did you have or skills did you develop this week?

   I have had to learn better time management skills to be able to balance all my assignments and get them on time.

6. Who was your most awesome team member this week and why?

   Josh Werner has been a huge help and has given some good advice.

Plans for Next Week

What are you going to work on this next week?

I will work on the functional design of the capstone report and the reference search.