Development Plan/Milestones:

Current Status - Week 4 - 9/2:

- Database Schema planned.
- Database Schema implemented.
- Basic Node Express web server set up.
- Some work done on design and layout.
- Arduino setup with amplifier and bin performed.

Targets for end of week 5 - 16/2:

Main aims: populate the database and test it. Get the web server set up. Make instructions so that all members know how to set up a local environment for testing and development.

- Database:
    - Fill with dummy data
    - Export filled database so that other members can use and test on it.
    - Perform queries on filled database to test functionality.
    - Have someone look over our database ERD schema.
    - Create basic web page for submitting Item form data.
- Server
    - Find way to connect to web server.
    - Connect database to local development environment (and create set of instructions for others to do so)
    - Copy Database over to web server and get it set up there.
- Design
    - Site map
    - Set of designs - that contain space for all functions
    - Start building HTML pages
- Arduino
    - Ensure outputs of the Arduino are good.

Targets for end of Reading Week - week 6 - 23/2:

Main aims: Finalise HTML templates and write the code to fetch and send data that will later be used to populate the dynamic templates (or be implemented on final pages)

- Database
    - Revise and Improve database schema (if any issues were found).
    - Create test web pages that fetch, process and display Data as required.
    - Create test web pages and functions that allow for shelf items to swap places and to replace shelves with a new item (deleting the old data)
- Server
    - Maintain routes and setup for testing pages and the HTML pages in development
    - Implement JavaScript functions required to process data and call them correctly in requests to display that processed data on the page (on test pages).
- Design

    - Set of HTML pages
    - Start working on creating dynamic templates (EJS) using database calls to generate page content
- Arduino
    - Test connectivity between the Arduino and the Database/Web server.

Targets for end of week 7 - 1/3

Main aims: Ensure the connectivity of the Arduino and the database. Start working out how to perform the item setup process with the Arduino.

- Database
    - Finalise database schema.
    - Populate database with data (self generated or from the Arduino)
    - Item setup process with the Arduino.
- Server
    - Improve functions and routing to work with dynamic EJS pages
    - Make sure the connection between the web server (database) and the Arduino works.
    - Work out how to perform the item setup process with the Arduino
- Design
    - Set of EJS templates with data processing functions copied over from test pages
- Arduino
    - Ensure connectivity with database - Insert weight data from the Arduino directly onto the database.

Targets for end of week 8 - 8/3

Main aims: Finish all pages and functions - then focus on testing

- Database
    - Finalize data for non-live shelves (the dummy ones not connected to the Arduino).
    - Double check the outputs of all operations are correct.
- Server
    - Finalise routing and functions - set the server up to run live (and not locally for dev)
    - Test the item setup process - shelf position swap - update item details etc.
- Design
    - Functionally finished dynamic pages - make any aesthetic improvements
- Arduino
    - Make sure it all works fine.
    - Test a mode with increased update frequency - for live presentation

Targets for final week before Presentation - 13/3

Main aims: Hopefully all development done - continue testing - prepare for presentation 13/3

- Database
    - Hopefully all done - fix any outstanding issues.
- Server
    - Hopefully all done - fix any outstanding issues.
- Design

    - Hopefully all done - make any small aesthetic changes
- Arduino
    - Hopefully all done - pray it works