

Timeline:

- **October 30 - November 5:** Finalize the design of the GUI and establish the database schema completely.
- **November 6 - November 12:** Begin GUI development and setup database connections.
- **November 13 - November 19:** Develop the backend functionality for managing crop cycles and harvest data.
- **November 20 - November 26:** Implement inventory tracking for seeds and tools and other functionalities.
- **November 27 - December 1:** Finalize all coding, perform thorough testing, and prepare for submission of Milestone 4.
- **December 2 - December 3:** Conduct final tests and polish the application for the demo.

Task Breakdown:

1. GUI Design and Development (Frontend):

- **Amir:** Design and implement the GUI layout for the main dashboard, including the navigation between different functionalities.
- **Engy:** Create the HTML/CSS templates for web-based components, ensuring they are intuitive and user-friendly.
- **Zoe:** Assist in integrating the frontend with the backend and ensure that user inputs are correctly captured and processed.

2. Database Schema and Backend Development:

- **Engy:** Lead the development of the backend in PHP, handling database connections, and implementing functions for data retrieval and updates.
- **Zoe:** Develop the SQL queries for inserting and updating the database, focusing on crop management and disease diagnosis functionalities.
- **Amir:** Work on the backend for the inventory management system, handling both seeds and tools.

3. Testing and Quality Assurance:

- **Zoe:** Lead the initial round of testing, focusing on unit tests for the database operations.
- **Amir:** Conduct integration tests, ensuring that the frontend and backend work together seamlessly.
- **Engy:** Perform user acceptance testing by simulating user interactions and collecting feedback for improvements.

4. **Documentation and Final Preparations:**

- **All Members:** Contribute equally to the project documentation, ensuring that each member can discuss the overall architecture and individual components of the project.

5. **Project Integration and Final Review:**

- **All Members:** Work together in the final week to integrate all components of the project, resolve any lingering issues, and ensure that the application is ready for the demo.