

## Leedana Software Brief

### Repository Management

Leedana's codebase is managed through Bitbucket, following a structured branch workflow to ensure efficient and reliable development.

- **Main Branches:**
  - **Main Branch:** The primary production branch. Only the CTO is allowed to merge the dev branch into the main branch at the end of sprints or in emergencies.
  - **Dev Branch:** The primary branch for ongoing development. Developers pull from and push to this branch using feature branches.
  - **Feature Branches:** New features or fixes are developed in individual feature branches created from the dev branch. After completion, these branches are merged back into the dev branch following a review.

### Pipeline Workflow

Leedana's development pipeline is designed for efficiency, focusing on maintaining high code quality.

- **To Do:** Tasks or features are defined and assigned to developers.
- **In Progress:** Developers work on their assigned tasks within feature branches.
- **QA (Single Review Process):** Upon completion, the code is reviewed by the CTO, Gabriel, to ensure it meets the required standards.
- **Done:** After passing the QA review, the code is merged into the dev branch and marked as complete.

### Software Overview

Leedana is a cutting-edge platform designed to educate users on sandponic technology, a proprietary water-saving farming technique. The software offers a range of core features aimed at enhancing the user experience and providing valuable tools for farmers and agricultural enthusiasts.

- **Farm Network:** This feature allows users to create and manage their own farms within the platform, akin to a social media app. Users can connect with others, view farms across the network, and share insights.
- **Learning Center:** An online course catalog where users can access educational content, including videos on sandponic technology and other related topics.
- **Opportunity Calculator:** This tool enables users to input three key variables to quickly calculate and forecast yield and costs, helping users make informed decisions. Most, if not all, of these calculators will be based on Excel sheets.

For more information on the prototype, you can visit [this link](#).

## Secondary Features

- **Authentication with Google:** Simplifies user login and account management.
- **Payment Processing:** Likely to be integrated with Stripe or a similar provider, allowing users to make purchases or payments within the platform.
- **Mobile Responsiveness:** Ensures the platform is fully accessible and functional on mobile devices.

## Admin Features

The Admin account in Leedana will have full CRUD (Create, Read, Update, Delete) operation control over most of the major data on the site, allowing for streamlined content and user management. Additionally, Admins will be able to create and manage greenhouse templates for users, which can be customized and used within the platform.

## Architecture

Leedana's architecture consists of two primary components:

- **Frontend Repository:** Built with ReactJS, this repository contains all client-side code, focusing on delivering a responsive and interactive user interface.
- **Backend Repository:** Built with NodeJS, this repository handles server-side logic, including data processing, API management, and communication with the MySQL database.

Both repositories are hosted on AWS, ensuring scalability and reliability.

## Database

Leedana utilizes a MySQL database for efficient data management. This relational database is critical for storing user data, farm information, course materials, and other essential data.

