Project Axious   Project Document

Tea Weight Scale System.

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Introduction

The Tea Weight Scale System integrates modern technology with agriculture, allowing for precise weight measurements and real-time data management. This ensures efficiency and accuracy in the tea collection process.

Purpose of the Project

- Address challenges in traditional tea weighing methods: errors, delays, inefficiencies.

- Introduce accurate weight measurement using load cells

- Enable seamless data transmission and centralized record-keeping.

Project Goals

Automation

Automating weight measurement and data entry eliminates manual tasks and reduces errors.

Accuracy

Precise weight measurements ensure fair payments and accurate records for tea farmers.

Efficiency

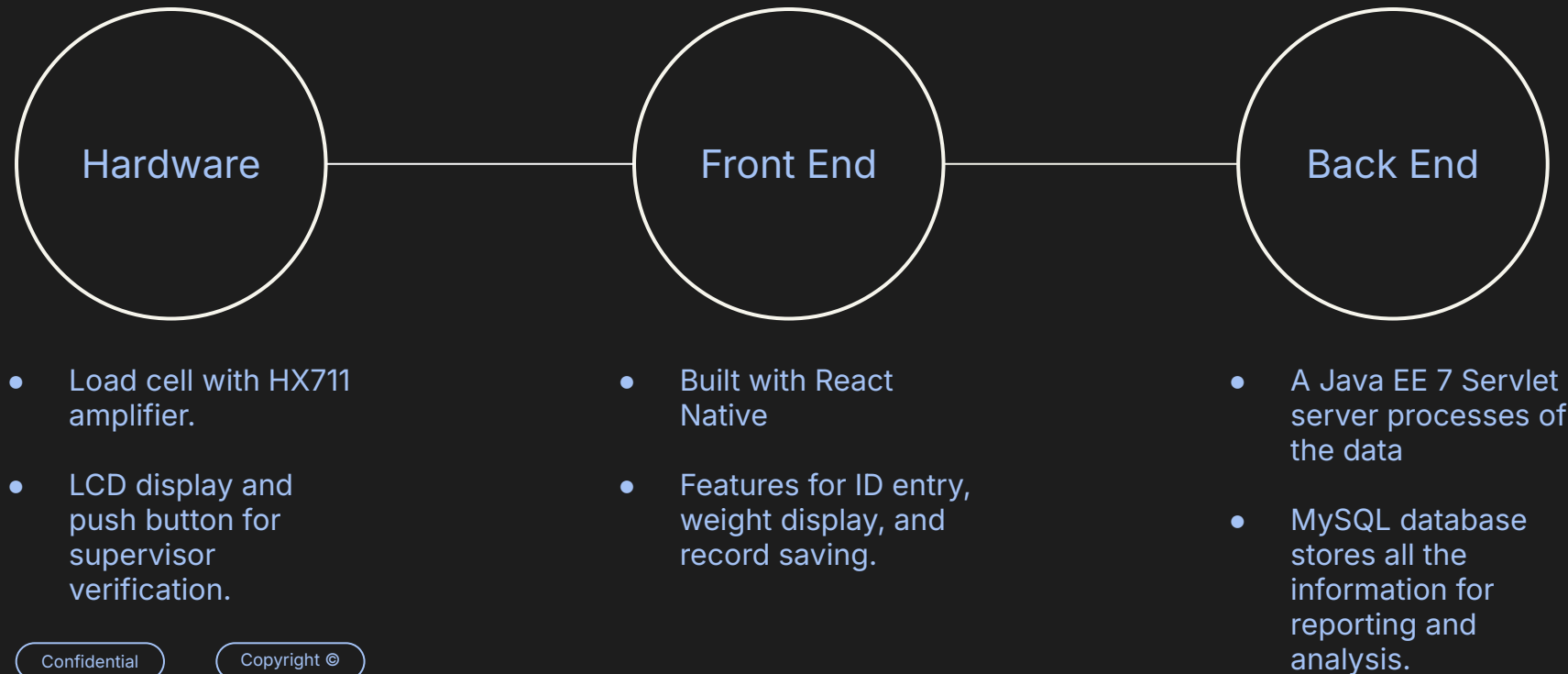Digitizing records streamlines the collection process, minimizing delays and manual errors.

User-friendly Interface

The system features a web-based interface that is intuitive and easy to navigate.

System Overview

Hardware

Front End

Back End

- Load cell with HX711 amplifier.

- LCD display and push button for supervisor verification.

- Built with React Native

- Features for ID entry, weight display, and record saving.

- A Java EE 7 Servlet server processes of the data

- MySQL database stores all the information for reporting and analysis.

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Benefits of the System

Accuracy

Ensures real-time, error-free weighing.

Efficiency

Speeds up collection and reduces manual errors.

Data Integrity

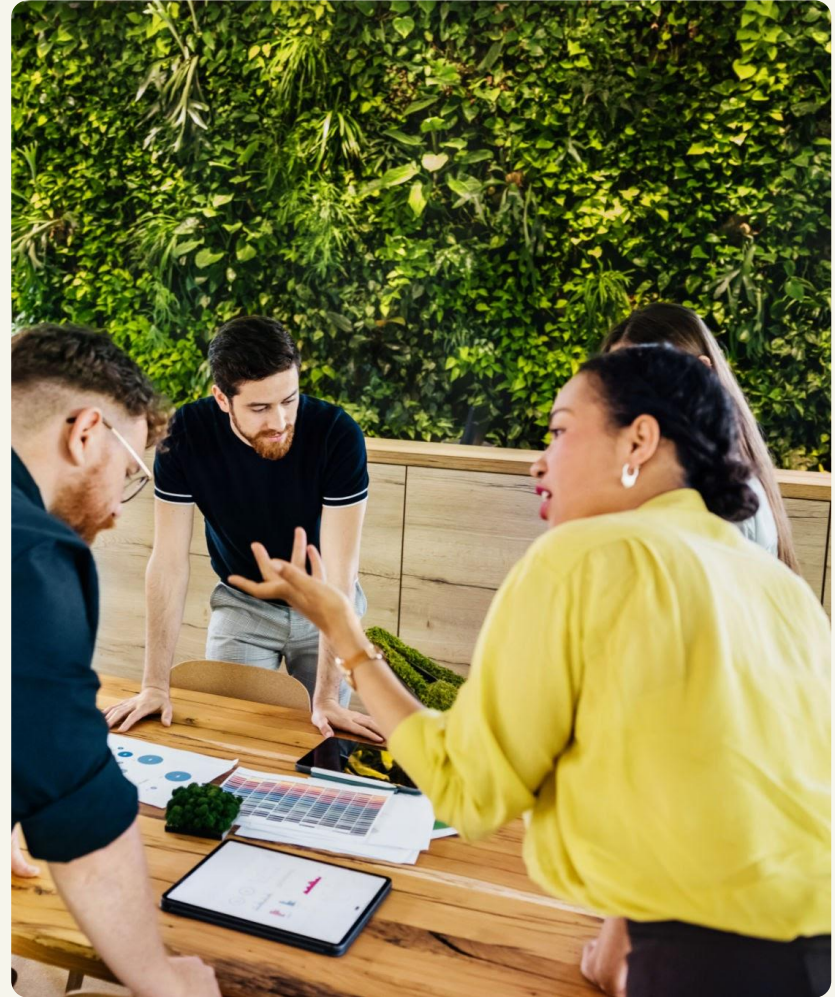Centralized storage for secure records.

Scalability

Extendable to multiple sites and features.

Conclusion

The Tea Weight Scale System modernizes tea collection by combining hardware automation with web-based data management, ensuring accuracy, efficiency, and transparency.

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Project Demonstration