



CropVista

*"Where data meets demand.
Revolutionizing crop supply."*



Team Members

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Problem Statement

In the agricultural industry, the lack of a transparent and efficient marketplace hinders the seamless exchange of crops between FMCG companies, distributors, and farmers. Traditional procurement methods suffer from opaque pricing and fragmented communication channels, leading to inefficiencies and missed opportunities.

Proposed Solution

Our idea proposes to provide a digital solution, to connect farmers, FMCGs, and distributors on one platform to enable transparency and effective production and usage of crops. This would also enable farmers to align their crop production with the market demand which will help reduce crop wastage and take informed decisions for crop production, making the process more efficient.

Tech Stack

Backend Stack

Mongoose { } 

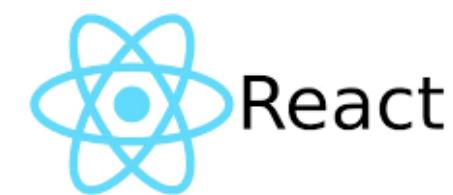
 express



bruno

Database

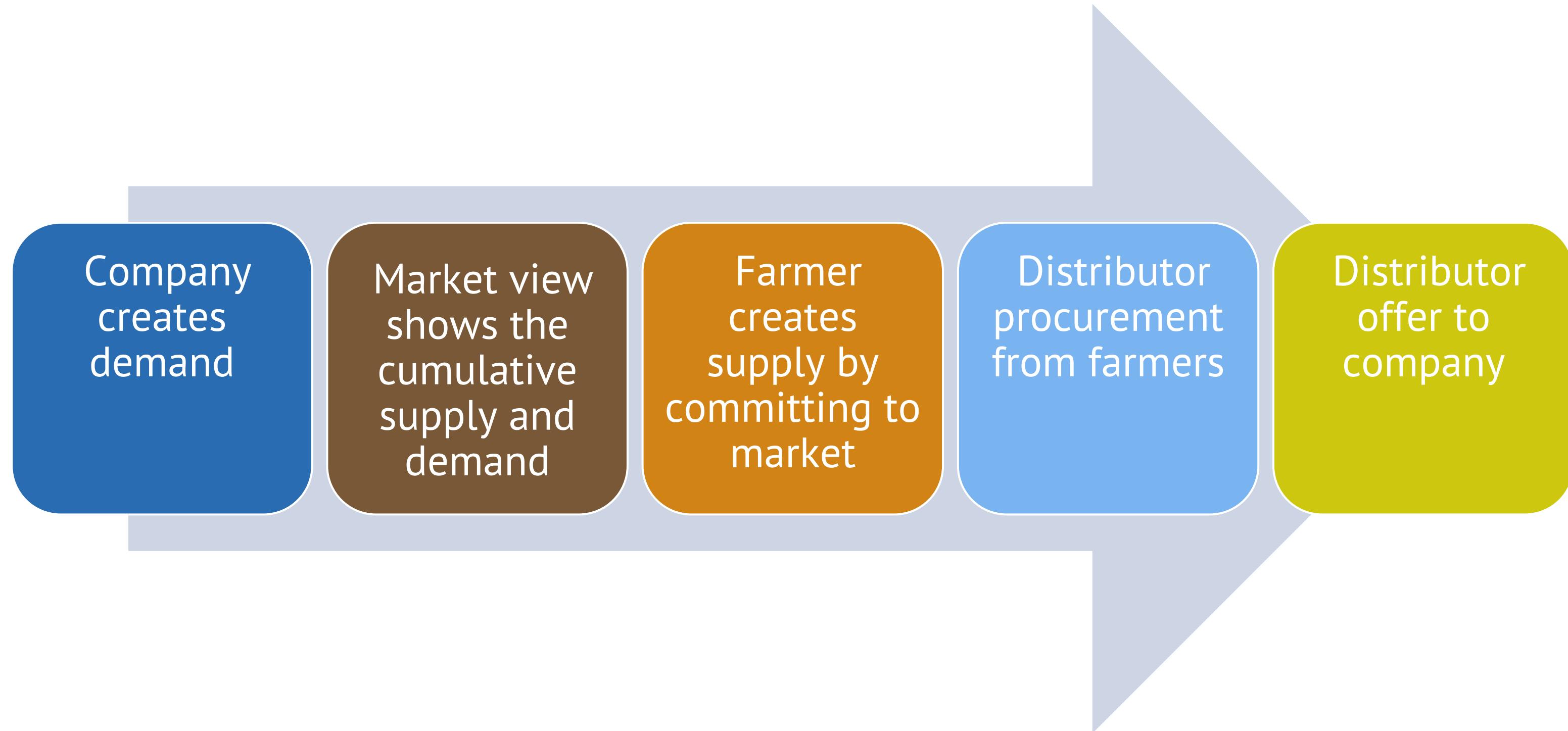
 mongoDB



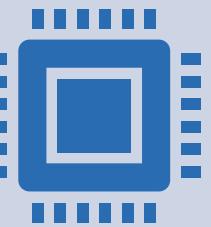
Frontend Stack



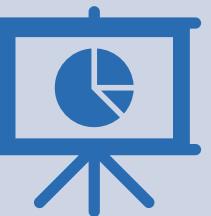
Process Flow



Project Highlights



Chatbot Integration: Utilizes Fugu capabilities, including the VirtualKeyboard and Navigator API, to implement an interactive chatbot feature.



Dynamic Components: Includes reusable grid tables, pie charts and bar graphs that adapt their display based on the data provided.



Contract Documentation: Allows contract agreements between parties to be generated as downloadable PDF files.

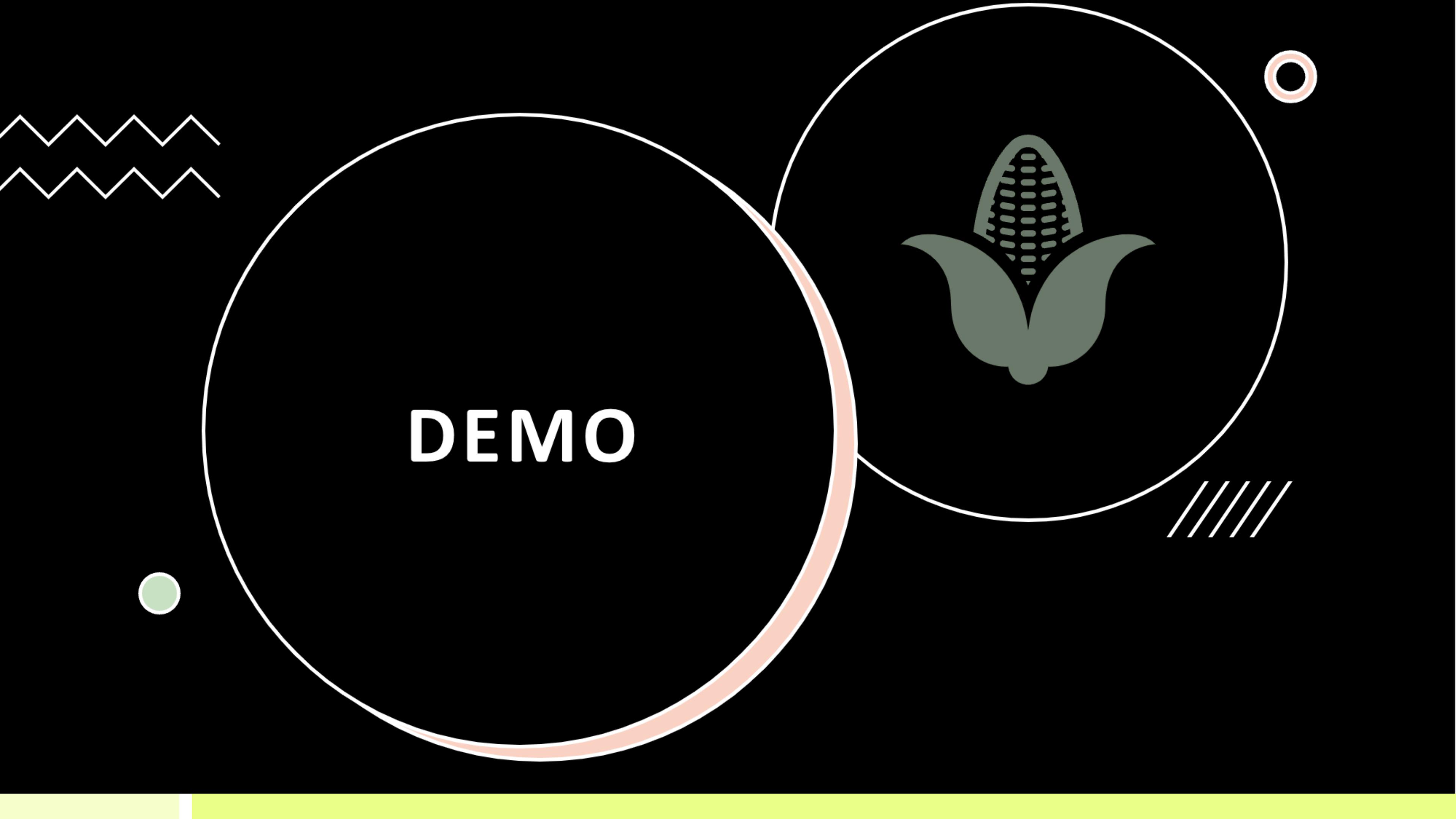
Node packages used

Server side:

- cors: to enable Cross-Origin Resource Sharing for secure API access
- debug: to provide a debugging utility for Node.js applications
- dotenv: to load environment variables from a .env file
- express: a web application framework for Node.js
- mongoose: to provide a MongoDB object modeling tool for Node.js

Client side:

- @emotion/react & @emotion/styled: utilities for styling components with Emotion
- @mui: Material Design components and icons for React
- @reduxjs/toolkit: to simplify Redux state management
- date-fns: used for date utility functions
- i18n: used for internationalization framework and backend loading for translations
- jspdf: to generate PDF files in the browser
- react & react-dom: core library and DOM methods for React
- react-hot-toast: toast notifications in React
- react-i18next: to integrate i18next with React
- react-redux: to connect Redux with React components
- react-router-dom: to manage routing in React applications



DEMO

Landing Page

The screenshot shows a Windows desktop environment with a green-themed wallpaper featuring palm trees and a tractor. A browser window titled "Crop Vista - CropVista" is open, displaying the CropVista landing page. The page has a dark orange header with the CropVista logo and the tagline "Where data meets demand. Revolutionizing crop supply." Below the header is a large orange background image showing a landscape with a tractor, a person, and palm trees. To the right of the image is a sign-in form with fields for "Username *", "Password *", and a "SIGN IN" button. There is also a link "Don't have an account? Sign Up". The taskbar at the bottom shows various pinned icons, and the system tray indicates the date and time as 8/11/2024 at 9:34 PM.

Crop Vista - CropVista

EN HI

Sign In

Username *

Password *

SIGN IN

Don't have an account? [Sign Up](#)

9:34 PM 8/11/2024

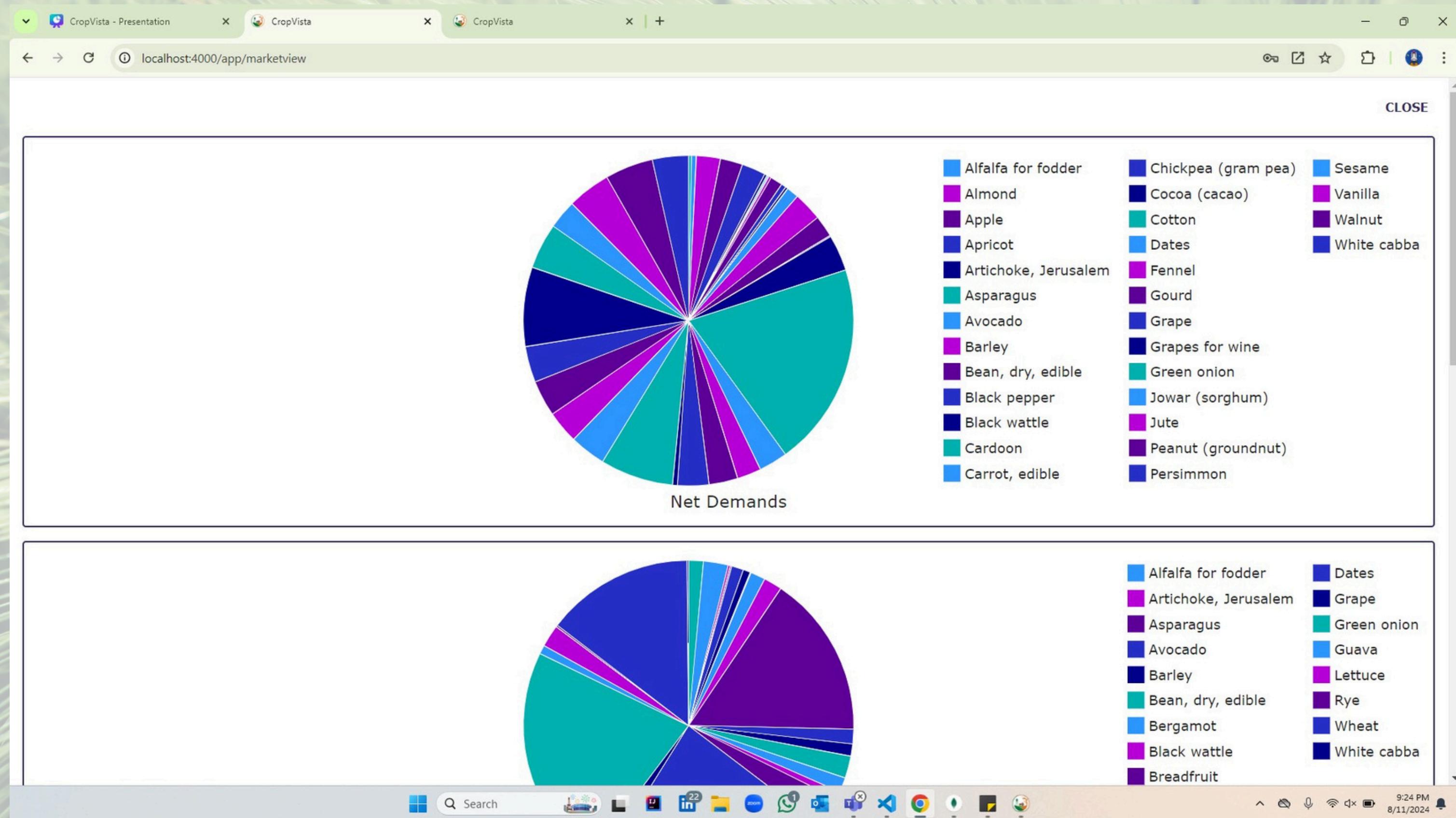
Chatbot Implementation Using Fugu Capabilities

The screenshot shows a web-based application interface for CropVista. At the top, there are three tabs: "CropVista - Presentation", "CropVista", and "CropVista". The main browser window displays the URL <localhost:4000/app/marketview>. The interface has a dark header bar with navigation links: "MARKET VIEW", "MY DEMANDS", "MY NEGOTIATIONS", "MY CONTRACTS", "EN" (language switch), "HI" (language switch), and a "Dabur" logo.

The main content area is titled "Market View" and features a "VISUALIZE" button. On the left, there is a "Crop" list table with columns for "Crop" and "Supply (tons)". The table contains entries like Persimmon, Rye, Safflower, Sesame, Vanilla, Walnut, Wheat, White cabbage, and another entry for White cabbage. On the right, there is a "Timeline (days)" table with columns for "Timeline (days)" and "Supply (tons)". The timeline shows values such as 38, 24, 94, 23, 68, 53, 83, 43, 53, 993, 38, and 39. The supply column shows values like 0, 12, 0, 0, 0, 0, 0, 0, 0, 0, 1000, 0, and 10.

A central modal window is open, showing a conversation between a user and a bot. The user says "Hi" and the bot responds with "Hello! How can I assist you today?". The user then asks "how to create demand" and the bot provides instructions: "To create a demand in the market, click the "Create Demand" button in My Demands and fill in the required details." Below the modal is a text input field with "Type a message..." placeholder and a "Send" button.

Visualization of Demand and Supply



Downloadable Contracts in PDF Format

The screenshot shows a web browser window for the CropVista application. The URL in the address bar is `localhost:4000/app/contracts`. The page title is "My Contracts". The interface includes a top navigation bar with tabs: MARKET VIEW, MY SUPPLIES, MY NEGOTIATIONS, and MY CONTRACTS. On the right side of the top bar are language settings (EN, HI), a user icon, and a three-dot menu. Below the navigation bar, there are three contract card components, each with a "VIEW CONTRACT" button.

Distributor	Crop	Contract Date
HarvestHaven Ltd.	Avocado - A	August 11 2024
HarvestHaven Ltd.	Barley - A	August 11 2024
HarvestHaven Ltd.	Chickpea (gram pea) - A	August 11 2024

The bottom of the screen shows a taskbar with various icons and system status indicators.

Internationalization

The screenshot shows a web browser window with multiple tabs open. The active tab is titled "localhost:4000/app/marketview" and displays a table of crop market data. The interface is multilingual, with labels in Hindi and English. The table includes columns for Crop Name, Measurement, Weight (kg), Availability Date (Days), and Availability Quantity (kg). A footer navigation bar at the bottom of the page includes links for "Presentation", "CropVista", "Meeting in Web Dev project", and "Final Project".

बाज़ार दृश्य

विज़ुअलाइज़

फसल	ग्रेड	मांग (टन)	समयरेखा (दिन)	आपूर्ति (टन)
खुरमा	ब	१५००	३८	०
राई	अ	०	२४	१२
राई	अ	१००	९४	०
राई	ब	१४००	२३	०
राई	ब	१८००	६८	०
सप्तावर	अ	१९००	५३	०
तिल	ब	१२००	८३	०
वनीला	अ	१८००	४३	०
अखरोट	अ	२०००	५३	०
गेहूँ	अ	०	९९३	१०००
सफेद बन्द गोभी	ब	१५००	३८	०
सफेद बन्द गोभी	ब	०	३९	१०

Search

9:32 PM 8/11/2024