

# **Purple Bean Agro – B2B Coffee & Chicory**

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# ABSTRACT

This project presents the design and development of a fully functional Product Inquiry Website built using modern web technologies, with the objective of replicating real-world B2B product showcase and enquiry workflows. The website, developed as a personal learning project, demonstrates how manufacturers and exporters digitally present their product range, communicate specifications, and handle customer inquiries. Built using React.js, Tailwind CSS, Framer Motion, React Router, JSON Server, and EmailJS, the platform provides an interactive user experience through a dynamic product catalogue, category-based filtering, modal-based product details, and automated inquiry initiation. Users can explore various coffee and chicory products, view detailed descriptions and specifications, and generate quote requests through integrated email and scheduling options. The backend simulation using JSON Server enables data management for products and admin operations, while the Admin Panel supports CRUD functionality for real-time content updates. Overall, this project highlights practical skills in frontend development, API integration, UI/UX design, animations, and full-stack concepts, while demonstrating how digital systems streamline product discovery and communication in industries dependent on customized or bulk order inquiries.

# INTRODUCTION

In today's global marketplace, a strong digital presence is essential for manufacturing and export based companies to reach and engage international buyers. Purple Bean Agro Industries Pvt. Ltd., a manufacturer of premium instant coffee, chicory products, tea blends, and beverage premixes, recognized the need for a modern, interactive, and content-rich platform that reflects its capabilities and supports business communication with clients across more than 20 countries. To address this requirement, the Purple Bean Agro Web Platform was developed, a comprehensive React-based application designed to showcase the company's product portfolio, highlight its manufacturing strengths, and simplify the process of enquiry and order initiation for importers, distributors, wholesalers, and private-label brands.

The platform is built using React.js, chosen for its component-based structure, efficient rendering, and ability to support scalable front-end architectures. Combined with Tailwind CSS, React Router, and Framer Motion, the website delivers a visually appealing, responsive, and highly interactive user experience. The system includes dedicated sections such as Home, About Us, Products, Contact, and an internal Admin Panel. Each page integrates thoughtful layout design and animations to ensure seamless navigation. The Products Page serves as a dynamic digital catalogue where users can filter items by category, subcategory, and sub-subcategory, search products using the global navbar search, and view detailed specifications and pricing labels in a dedicated product modal. This transforms what would traditionally be a static brochure into an interactive, user-friendly exploration system suitable for B2B buyers.

Beyond customer-facing features, the project incorporates a functional Admin Management System powered by JSON Server, enabling authenticated team members to manage the product database without a complex backend. This includes adding new products, editing product details, uploading images, updating features and specifications, and deleting outdated listings all through an intuitive interface. The Contact Page further enhances communication by integrating EmailJS for form submissions, Cal.com for appointment scheduling, and WhatsApp chat buttons for instant outreach. Combined, these features create a complete digital ecosystem that supports the company's sales operations, improves buyer engagement, and establishes a professional online identity. Overall, this project demonstrates how modern frontend technologies can be strategically applied to elevate the operational and marketing capabilities of a real-world manufacturing business.

# SCENARIO-BASED INTRODUCTION

Imagine an international coffee buyer searching for a reliable supplier of instant coffee, chicory blends, and beverage premixes. After browsing through several options, the buyer lands on the Purple Bean Agro website, where they are immediately greeted with a full screen hero banner showcasing real factory imagery and a bold message positioning the company as a global manufacturing partner. As the buyer scrolls through the homepage, they explore sections explaining the company's mission, values, and export capabilities, followed by a structured presentation of product categories and a transparent overview of the company's sales process. This creates a guided discovery experience where buyers can evaluate the brand's credibility and product range even before initiating contact.

Curious to know more, the buyer navigates to the Products page. Here, they find a well-organized digital catalogue that supports filtering by category, subcategory, and sub-subcategory, enabling them to quickly locate items like Flavoured Hazelnut Coffee or Amruttulya Elaichi Tea. The integrated search bar refines results instantly, making navigation efficient for users handling large product lines. Upon selecting a product, a detailed modal appears with high resolution imagery, key features, specifications, and a "Request Quote" button that opens a pre-filled email to the sales team. This creates a seamless bridge between product discovery and inquiry initiation, mirroring the real workflow of B2B buyers who need detailed specifications before placing bulk orders.

Behind the scenes, the company's internal team operates the Admin Panel, which serves as a simple content management system. When a new product variant is released, a sales team member logs into the admin dashboard, uploads product images, enters specifications, sets pricing labels, and marks the product as "NEW." These updates are instantly reflected on the live site through the JSON Server backend. Meanwhile, the Contact page provides buyers with multiple communication pathways, such as EmailJS based form submission, automatic email replies, WhatsApp quick-chat, and Cal.com scheduling, ensuring that no lead is lost. In practical business scenarios, this complete workflow replicates how real suppliers and international buyers interact from initial discovery and detailed evaluation to inquiry, negotiation, and long-term partnership building.

## TARGET AUDIENCE:-

The Purple Bean Agro platform is designed for importers, distributors, HoReCa buyers, and private-label brands seeking reliable bulk coffee and chicory suppliers. It also supports wholesalers and procurement teams who require detailed product information before ordering.

## **USER INTERFACE & TECH STACK:-**

The Purple Bean Agro website features a clean, user-friendly interface that makes it easy for buyers to browse product categories, filter items, view detailed specifications, and contact the company without confusion. A modern React.js front end combined with Tailwind CSS ensures responsive layouts and consistent visual styling across all devices, while React Router enables smooth page navigation and Framer Motion adds subtle animations for a premium feel. On the data side, JSON Server powers the product and admin APIs, and integrations like EmailJS, Cal.com, and WhatsApp links support seamless communication and lead capture, creating a professional, end-to-end digital experience for B2B users.

## **KEY FEATURES:-**

1. **Advanced Product Catalogue** – Filter by category, subcategory, and sub-subcategory with instant search, helping buyers quickly find specific products.
2. **Rich Product Details Modal** – High-quality images, key features, specifications, and direct “Request Quote” and “Download Catalogue” options.
3. **Modern & Responsive UI** – Built using React.js, Tailwind CSS, and Framer Motion for smooth animations and seamless navigation across all devices.
4. **Integrated Communication Tools** – EmailJS forms, WhatsApp chat, Cal.com scheduling, and mailto links ensure fast and reliable buyer communication.
5. **Admin Panel for Product Management** – Admins can log in to add, edit, update images, manage specifications, and delete products using a lightweight JSON Server backend.
6. **Smooth Navigation & UX Enhancements:** Includes scroll to top functionality, responsive layouts, real factory imagery, product badges (e.g., **NEW**), and structured sections for About, Sales Process, and CTA.

# PROJECT GOALS AND OBJECTIVES

The primary goal of the Purple Bean Agro website is to function as a professional digital front for the company while providing a well-organized and accessible catalogue of all product offerings. The platform aims to represent the brand effectively, enhance user experience, and streamline communication between the business and its clients.

## 1. Brand Presentation

The website is designed to clearly communicate the company's mission, vision, values, and manufacturing capabilities. To strengthen brand identity, real factory imagery and storytelling elements, such as an "Our Journey" section, are incorporated to provide authenticity and build trust with users.

## 2. Admin-Friendly Product Management

An admin panel is implemented to simplify internal management tasks. It includes:

- Admin login functionality
- Session handling powered by JSON Server
- Full CRUD operations for product management (Create, Read, Update, Delete)
- Easy editing of product features, descriptions, prices, and images

## 3. Modern Tech Stack & Best Practices

The project utilizes a contemporary technology stack including React, Vite, Tailwind CSS, React Router, Framer Motion, and JSON Server. Development follows best practices such as:

- Building reusable components
- Maintaining a clean and scalable project structure
- Ensuring full responsiveness and visual consistency across devices

# **PRE-REQUISITES:-**

Here are the key prerequisites for developing and running the Purple Bean Agro frontend application using React.js, Tailwind CSS, and supporting technologies:

## **1. Node.js and npm:**

Node.js is a powerful JavaScript runtime environment that enables JavaScript execution outside the browser. It is essential for running React-based development tools, installing dependencies, and managing build processes.

Install Node.js and npm on your system, as they are required to set up and run the Purple Bean Agro project.

Download Node.js:

<https://nodejs.org/en/download/>

Installation Instructions:

<https://nodejs.org/en/download/package-manager/>

Node.js provides the environment needed to run the development server, manage packages, and build the production version of the application.

## **2. React.js:**

React.js is a popular JavaScript library used to build interactive, component-based user interfaces. The Purple Bean Agro website uses React to create reusable components such as the Navbar, Product Cards, Modals, Contact Form, Admin Panel, and more.

Install React and Create the Project:

You can create a new React app using Vite for faster development:

`npm create vite@latest`

- Enter project name
- Choose React as your framework

- Navigate to the project folder:

```
cd project-name  
npm install
```

**Run the Development Server:** `npm run dev`

This command launches the local server, and the application can be accessed at:

<http://localhost:5173>

### 3. HTML, CSS, JavaScript Basics:

To effectively work on this project, developers should have foundational knowledge of:

- HTML – for structuring UI components
- CSS / Tailwind CSS – for styling and layout
- JavaScript (ES6+) – for dynamic behavior, handling events, and interacting with APIs

Tailwind CSS is heavily used in the project for rapid styling and responsive designs.

### 4. JSON Server:

The Purple Bean Agro project uses JSON Server to simulate a backend and store:

- Product Data
- Admin Credentials
- Sessions

**Install JSON Server globally:**

```
npm install -g json-server
```

### **Start JSON Server:**

```
json-server --watch server/db.json --port 5000
```

This creates API endpoints like `/products`, `/admins`, and `/sessions`.

## **5. EmailJS Setup:**

EmailJS is required for sending emails directly from the Contact Form on the website without a backend.

- Create an EmailJS account
- Set up Service ID, Template ID, and Public Key
- Install EmailJS in the project:

**To install run this command on terminal:** `npm install emailjs-com`

This enables the website to send automated replies and forward customer inquiries to Purple Bean Agro.

## **6. Version Control (Git):**

Use Git for version control to track changes, collaborate, and manage different versions of the project.

- Download Git:  
<https://git-scm.com/downloads>

You may also use platforms like GitHub, GitLab, or Bitbucket for repository hosting.

### **Development Environment:**

A code editor or IDE helps write, debug, and maintain the project efficiently. Recommended options include:

- Visual Studio Code (VS Code) – <https://code.visualstudio.com/download>

- Sublime Text – <https://www.sublimetext.com/download>
- WebStorm – <https://www.jetbrains.com/webstorm/download>

VS Code is widely preferred due to its extensions, React support, and integrated terminal.

## PROJECT STRUCTURE:

The Purple Bean Agro project is organized into a clean and modular folder structure to ensure scalability, maintainability, and ease of development. The main logic of the application resides inside the src folder, which contains the core files such as App.jsx, main.jsx, and index.css. Within src, the components directory holds all reusable UI elements like the Navbar, Footer, Product Modal, Hero Section, and CTA block allowing consistent design and efficient reuse across multiple pages. The pages directory contains full-screen views such as Home, Products, About, Contact, and Admin, each responsible for rendering complete sections of the website.

Supporting functionality is separated into dedicated folders: the services directory manages API communication through endpoint configurations, while the utils folder includes helper functions such as the email service integration and product filtering logic. The public folder stores static assets like the catalogue PDF, background video, and factory images, which are directly accessible by the browser. Additionally, the server folder contains the db.json file used by JSON Server to simulate a backend for products, admin authentication, and session management. Together, this structured layout ensures that the project remains organized, easy to navigate, and adaptable for future enhancements.

The Purple Bean Agro project follows a well organized folder structure designed to maintain clarity, scalability, and ease of development. The application is divided into logical modules such as components, pages, services, and utilities, ensuring that each part of the project is easy to manage and extend. Below is the structured breakdown:

PURPLEBEANSITE	
>	public
▽	server
{}	db.json
▽	src
>	assets
▽	components
JS	AboutUs.jsx
JS	CTA.jsx
JS	Footer.jsx
JS	HeroSection.jsx
JS	Navbar.jsx
JS	Product.jsx
JS	ProductModal.jsx
JS	SalesProcess.jsx
JS	ScrollToTop.jsx
▽	pages
JS	About.jsx
JS	Admin.jsx
JS	Contact.jsx
JS	Home.jsx
JS	Products.jsx
▽	services
JS	api.js
▽	utils
JS	emailService.js
JS	productFilter.js
#	App.css
JS	App.jsx
#	index.css
JS	main.jsx

# PROJECT FLOW

The system uses a JSON Server running on a separate port, such as <http://localhost:5000>, to serve the backend collections including /products, /admins, and /sessions. This server acts as the primary data provider for the application, enabling product retrieval, admin authentication, and session management. A Google Drive demonstration link may be added later, similar to the format used in the CodeCraft report.

## Milestone 1: Project Setup and Configuration

The project begins with the initialization of a React application built using Vite + React for optimal performance and modular development. Several dependencies are installed to support routing, animations, UI components, styling, and email communication. These include react-router-dom, framer-motion, lucide-react, tailwindcss, postcss, autoprefixer, and emailjs com. Tailwind CSS is configured along with the global stylesheet (index.css) to define core styling utilities across the project.

To manage data, a JSON Server is configured by creating a server/db.json file containing the collections products, admins, and sessions. The server is launched using the command:

```
npx json-server --watch server/db.json --port 5000
```

## Milestone 2: Core Layout and Navigation

### App.jsx Component – Overview

The App.jsx component acts as the central wrapper for the entire application. It is enclosed within a BrowserRouter, enabling navigation between different pages. A custom ScrollToTop component is included to ensure that the page automatically resets to the top whenever the route changes, improving user experience.

The App component maintains a searchTerm state that is shared with both the Navbar and Products components. This allows the Navbar to update the search input, and the Products page to filter items based on the entered search query. Smooth page transitions are achieved using AnimatePresence from Framer Motion. The final layout rendered by App.jsx follows a consistent structure, displaying the Navbar at the top, the page specific Routes in the middle, and the Footer at the bottom.

## Milestone 3: Navbar Component – Overview

The Navbar component is responsible for site-wide navigation and includes links to Home, Products, About Us, Contact, and Admin sections. It manages several internal states: isOpen, which controls the visibility of the mobile menu; scrolled, which updates the background style when the user scrolls; and localSearchTerm, which stores the current value of the search bar.

When the user types into the search bar, the component triggers the onSearch() function passed from App.jsx. If the user is not already on the Products page, the system automatically redirects them to /products to display filtered results. On mobile devices, the Navbar displays a collapsible drawer containing navigation links, a search input, and a “Get in Touch” button leading to the Contact page.

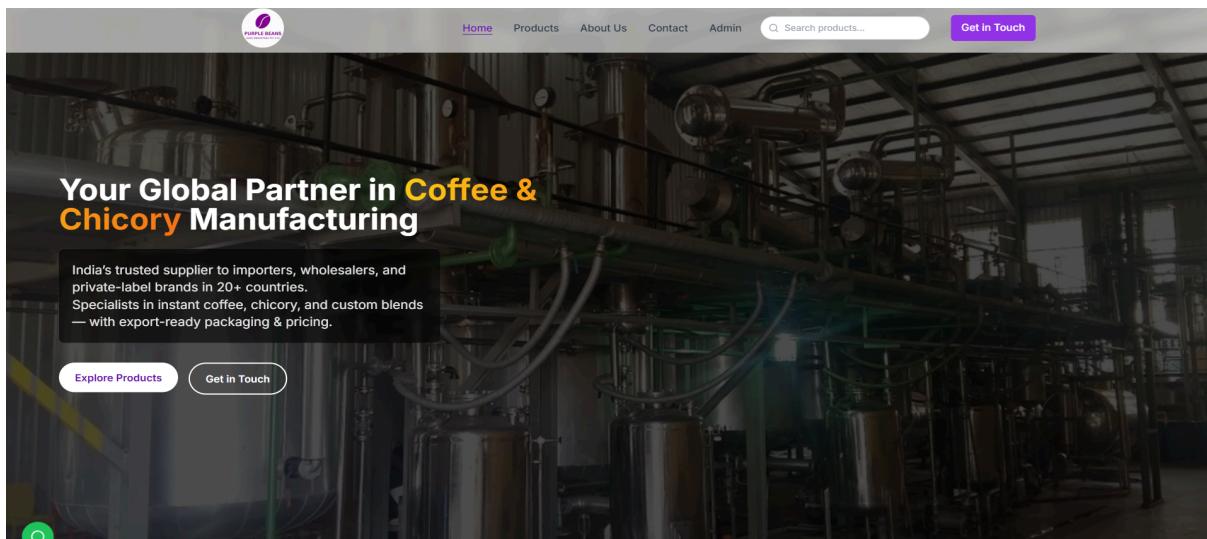
## Milestone 4: ScrollToTop Component – Overview

The ScrollToTop component enhances navigation by monitoring route changes using the useLocation() hook. Whenever the pathname updates, the component triggers a smooth scroll to the top of the page with:

```
window.scrollTo({ top: 0, behavior: 'smooth' });
```

This component renders no UI elements; it serves solely as a behavioral enhancement to improve user experience.

# SCREENSHOTS



A screenshot of the "Products" page. The top navigation bar includes "Home", "Products", "About Us", "Contact", "Admin", a search bar, and a "Get in Touch" button. Below the navigation, there are three main product categories: "Flavoured Coffee", "Plain Coffee", and "Coffee Beans". Each category has a sub-menu dropdown. Under "Flavoured Coffee", there is a card for "Butterscotch Flavoured Coffee" with a rating of 4.9. Under "Plain Coffee", there are cards for "Agglomerated Instant Coffee" (rating 4.7) and "Freeze Dried Arabica" (rating 4.9). Under "Coffee Beans", there is a card for "Plain Coffee - Signature Blends" (rating 4.9). Each product card includes a thumbnail image, product name, rating, description, flavor options, roast level, price, and a "View Details" button.

A screenshot of the "About Us" page. The top navigation bar is identical to the products page. The main content area has a purple header with the title "About Us". Below the title, there is a paragraph about the company's commitment to quality and customer satisfaction. To the right of the text is a large image of a steaming cup of coffee with latte art. At the bottom of the page, there are two sections: "Our Mission" and "Our Vision". Each section has a circular icon, a title, and a brief description.

PURPLE BEANS
Home
Products
About Us
Contact
Admin

Get in Touch

### Send us a Message

Fill out the form below and we'll get back to you within 24 hours.

Message \*

Tell us about your requirements...

Send Message

### Get in Touch

Phone

+91-8101287339  
+91-91649460527  
Mon-Sun from 10am to 10pm IST

Email

Purplebeanagro@gmail.com  
Calistofoodx@gmail.com  
We respond within 24 hours

Office

PBAI Pvt. Ltd, Factory No. 12/4  
Near Dapodi Metro Station, Dapodi,  
Pimpri-Chinchwad,  
Pune, Maharashtra 411012  
Visit us during business hours

PURPLE BEANS
Home
Products
About Us
Contact
[Admin](#)

Get In Touch

### Create New Product

Add a new product to your catalog

Product Image

Click to upload or drag and drop  
PNG, JPG, GIF up to 5MB

Short Description

Brief description of the product

Existing Products
Manage your product catalog
11 items

#2 Butterscotch Flavoured Co...  
Flavoured Coffee • Signature Blends

Edit Delete

#3 Agglomerated Instant Coffe...  
Plain Coffee • Agglomerated

Edit Delete

#4 Freeze Dried Arabica  
Plain Coffee • Freeze Dried

Edit Delete

#5 Tea Premix - Cafe Style  
Premix • Tea Premix • Cafe Premix

Edit Delete

#6 Tea Premix - Vending Mac...  
Premix • Tea Premix • Vending Machine Premix

Edit Delete

#7 Green Coffee Beans - Arab...  
Coffee Beans • Green Beans • Arabica Cherry

Edit Delete

#8 Roasted Beans - Robusta ...  
Coffee Beans • Roasted Beans • Robusta Cherry

Edit Delete

#9 Instant Iced Tea - Lemon  
Tea • Iced Tea

Edit Delete

#10 Tea Extract - Green  
Tea • Tea Extract • Green

Edit Delete

#11 Crystal Coffee  
Crystal Coffee

Edit Delete

#12 Cold Coffee Premix  
Flavoured Coffee • Ready To Drink

Edit Delete

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# CONCLUSION

The Purple Bean Agro web application successfully demonstrates how modern frontend technologies can transform a traditional manufacturing and export business into a dynamic, user-friendly digital platform. By leveraging React.js, Tailwind CSS, Framer Motion, and JSON Server, the project delivers a seamless browsing experience with smooth navigation, responsive layouts, and visually engaging product presentations. Buyers can easily explore categories, view detailed product specifications, and initiate inquiries through integrated communication channels such as EmailJS, WhatsApp, and Cal.com. This ensures that potential clients receive the information they need quickly and efficiently, enhancing overall customer engagement and trust.

On the operational side, the integrated Admin Panel provides the company's internal team with a simple yet effective tool to manage product data without the need for a complex backend system. Features like product creation, editing, deletion, image uploads, and specification management make the system highly adaptable to real-time business needs. Overall, the project not only strengthens the digital presence of Purple Bean Agro but also lays the foundation for future scalability, whether through advanced backend integration, e-commerce expansion, or multi-user workflows. The application stands as a practical and professional solution for modernizing B2B interactions in the coffee and chicory industry.

# REFERENCES

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