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Vegetable Supply Chain & Delivery Management System

Project Overview:

The client operates a supply chain network for vegetable collection, packing, and delivery. The process includes collecting vegetables from farmers, third-party suppliers, and vendors, packing them at designated centres, and delivering them to airports for shipment. The system should streamline and automate order management, collection, delivery, labour tracking, payouts, and reporting.

1. Application Components

- **Admin Panel (Web Application)**

- **Driver Mobile App (Android)**

- **Backend + Database + API Integration**

- **UI/UX Design**

- **Deployment, Testing, and Training**

2. Project Objectives

- Simplify the process of vegetable procurement and delivery.

- Enable real-time monitoring of drivers, orders, and deliveries.

- Streamline communication between admin, farmers, vendors, and drivers.

- Automate payout calculation for farmers, drivers, and labourers.

- Generate detailed operational and financial reports.

3. Admin Panel Modules

3.1 Dashboard

- Overview of total farmers, suppliers, drivers, labours.

- Daily summary: total orders, deliveries, pending collections.

- Graphs for vegetable quantities, payouts, and delivery performance.

- Quick access to recent notifications, active orders, and alerts.

3.2 Vegetable Vendor Management

- Add/Edit/Delete vendor details.

- Vendor type selection: Farmer / Supplier / Third Party.

- Contact information, address, assigned produce list.

- Vendor performance & history tracking (quality, supply frequency).

- Vendor status (Active / Inactive).

3.3 Farmer Management

- Farmer registration and profile management.

- Link farmers to specific crops/vegetables.

- Daily/weekly rate update for each vegetable.

- Calculate cost for farmers based on daily market price.

- Farmer payment (payout) history & pending dues.

- Farmer activity dashboard (supplies, returns, payments).

3.4 Supplier Management

- Maintain details of all suppliers or third-party aggregators.

- Track supplier-wise vegetable procurement and payments.

- Manage supplier order allocation.

3.5 Third Party Management

- Manage external third-party procurement sources.

- Maintain agreements and payment terms.

- Track quantities collected and delivery frequency.

3.6 Driver Management

- Add/Edit/Delete driver profiles.

- Assign drivers to collection or delivery tasks.

- Track driver current location & trip history.

- Manage vehicle details (type, number, capacity).

- Track driver availability & working hours.

3.7 Labour Management

- Labour registration and attendance tracking.

- Daily login/entry system for labours.

- Assign labour to packing or loading/unloading work.

- Daily wage calculation based on attendance.

- Labour payout tracking (Paid / Pending).

- Performance tracking & total working hours/month.

3.8 Order Management

- Manual order entry based on client requirements.

![Deecodes.io logo]

- Assign orders to farmers/vendors based on vegetable type and quantity.

- Calculate required quantities for each collection point.

- Assign driver(s) for pickup and delivery.

- Track order status: **Created → Assigned → Collected → Packed → Delivered.**

- Generate order-wise summary and invoices.

3.9 Order Assignment & Collection Workflow

- Auto/manual driver assignment based on route and availability.

- Assign farmers/suppliers to each order based on quantity and location.

- Real-time update of collection status by drivers.

- Notify admin when vegetables reach the packing unit.

- Assign delivery driver to airport/flight loading.

3.10 Delivery Management

- Manage deliveries from packing unit to airport.

- Tracking of delivery driver status (in-house and airport deliveries).

- Update delivery status (In Transit, Delivered, Onboarded).

- Generate delivery slips and confirmation reports.

3.11 Role & Permission Management

- Create and manage user roles (Admin, Supervisor, Accountant, etc.).

- Define access levels for each role (View, Edit, Approve).

- Maintain activity logs for security and tracking.

3.12 Payout Management

Farmer Payout

- Auto-calculate based on supplied quantity and fixed daily vegetable rate.

- Track payment mode: Cash / Bank / Pending.

- Generate farmer payment history and receipts.

Labour Payout

- Calculate based on daily attendance and wage rate.

- Manage advance payments and deductions.

- Generate daily, weekly, or monthly wage reports.

Driver Payout

- Calculate based on delivery trips, distance, or per delivery.

- Manage extra allowances or fuel costs.

- Payment summary and status tracking.

3.13 Reports Module

- **Orders Report** – summary by date, client, and status.

- **Farmer Report** – supply quantity, total payout, pending dues.

- **Delivery Report** – route-wise, driver-wise, or airport delivery summary.

- **Labour Report** – attendance and wage details.

- **Invoice Report** – auto-generated for all orders.

- **Payout Report** – for all stakeholders (farmer, labour, driver).

3.14 Settings Module

- Manage vegetable master data (name, unit, category).

- Daily vegetable market rate update.

- Manage packing units and airport locations.

- Configure payout calculation formulas.

- Backup and restore system data.

- Update system roles and access permissions.

3.15 Notifications

- Push and in-app notifications for:

    - New order creation.

    - Driver assignment.

    - Delivery status updates.

    - Payout confirmations.

- Email/SMS alerts for key activities.

4. Driver Application Modules

4.1 Home / Dashboard

- View assigned orders and daily schedule.

- Quick summary: Pending collections, deliveries completed.

- Shortcut buttons for active orders and updates.

4.2 Profile

- View and edit driver profile.

- Update availability status (Active / On Leave).

- View payout history and trip summaries.

4.3 Delivery Management

In-house Delivery

- Pickup vegetables from farmers/vendors.

- Update live collection status (Collected / In Transit / Delivered to Packing Unit).

- Upload collection proof (image or signature).

Airport Delivery

- Pickup packed boxes from packing unit.

- Deliver to airport or flight loading area.

- Update delivery status (Delivered / Onboarded).

- Upload delivery proof.

4.4 Notifications

- Receive order assignments.

- Alerts for route changes or urgent updates.

- Payment notifications after successful payout.

4.5 Additional Driver App Features

- Route optimization and map navigation.

- Real-time delivery tracking for admin.

- Offline data saving (sync once online).

5. User Roles

Role	Access Level
Super Admin	Full access to all modules

Admin	Manage orders, payouts, and reports
Supervisor	Manage vendors, drivers, labours
Accountant	Handle payouts and financial reports
Driver	Handle assigned deliveries and status updates