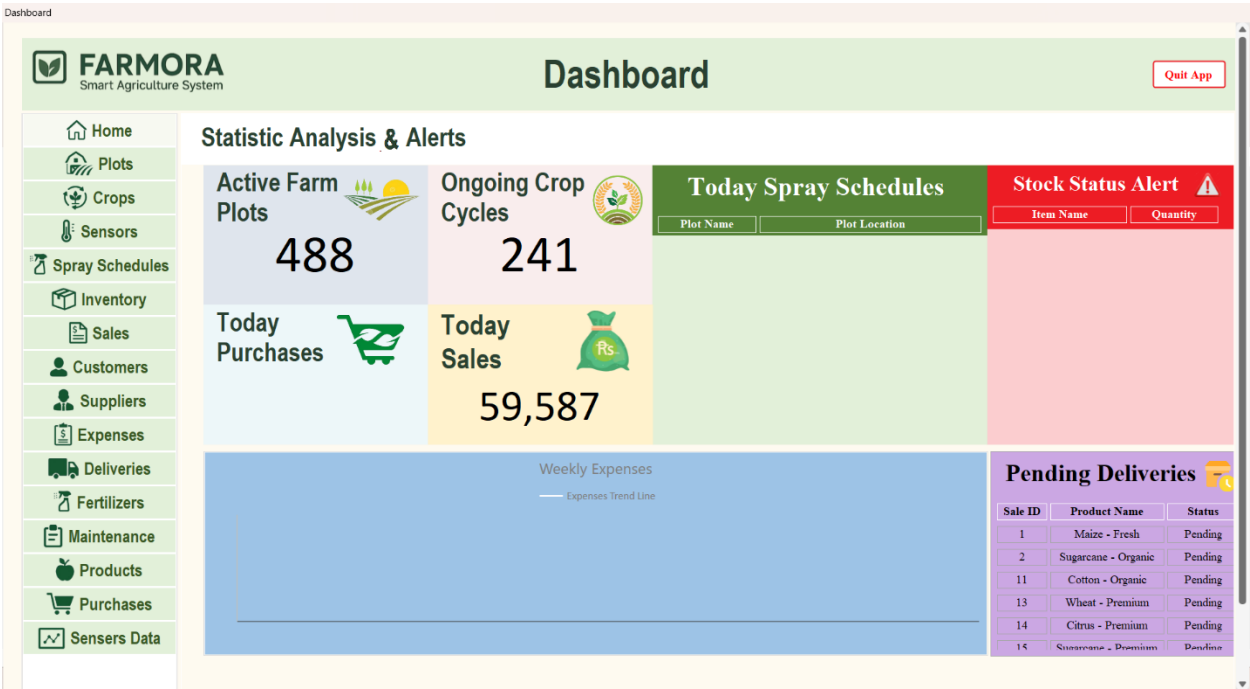


FARMORA Smart Agriculture System

Admyon Systems

Building Smarter Business Solutions



Project Overview

FARMORA is an advanced Smart Agriculture ERP designed for corporate farms and agricultural estates. It bridges the gap between field operations and back-office logistics by centralizing crop cycle tracking, land plot management, agricultural inventory, B2B sales, and real-time IoT sensor data monitoring into a single, cohesive platform.

Business Problem

Modern large-scale farms struggle to consolidate operational data. Relying on fragmented spreadsheets for seed inventory, separate logs for crop cycles, and disjointed records for sales and deliveries leads to immense inefficiencies. Crucially, without a system to actively monitor soil health and environmental sensor data (pH, humidity, nutrients), farm managers risk catastrophic crop failures, over-fertilization, and inaccurate yield forecasting.

Our Solution

Admyon Systems engineered a comprehensive AgriTech solution that digitizes the entire farming lifecycle. FARMORA allows farm managers to track distinct plots of land, monitor the exact status of ongoing crop cycles, and log critical environmental data from field sensors. By integrating this field data directly with inventory (seeds, fertilizers) and outbound delivery logistics, the system ensures optimal resource allocation and maximizes agricultural output.

Key Features

- Centralized Farm Dashboard (Active Plots, Spray Schedules, Stock Alerts)
- IoT Sensor Data Logging & Status Alerts (pH, Humidity, Temperature, Nutrients)
- End-to-End Crop Cycle Tracking (Planned, Active, Completed, Failed)
- Farm Plot Management categorized by Soil Type and Location
- Agricultural Inventory Control (Seeds, Fertilizers, Pesticides)
- Integrated Sales, Customer Loyalty, and Delivery Routing

Technologies Used

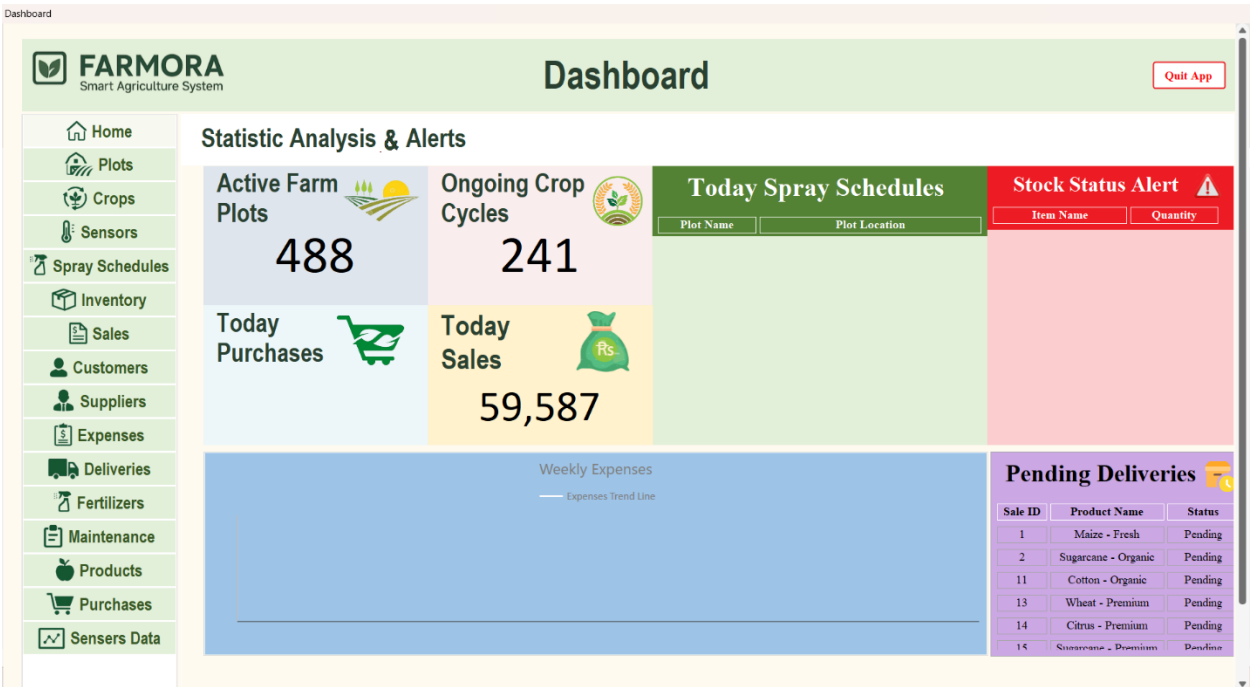
Technology	Used
Microsoft Access	✓
VBA (Visual Basic for Applications)	✓
SQL	✓

System Modules

- Smart Dashboard & Analytics
- Farm Plots & Crop Cycles
- IoT Sensors & Live Data Logs
- Agricultural Inventory & Products
- Sales, Customers & Logistics (Deliveries)
- Spray Schedules & Maintenance

Screenshots

Smart Farm Dashboard



A comprehensive visual command center providing farm executives with live KPIs, including active farm plots, ongoing crop cycles, daily sales, and critical stock status alerts.

Farm Plots Management

Dashboard

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Farm Plots List

Add New Farm

Plot ID	Plot Name	Plot Area	Soil Type	Plot Location	Is Active
1	Royal Farms	3	Loamy	Multan	☒
2	Royal Farms	6	Sandy	Sialkot	☒
3	Azadi Farm	2	Silty	Multan	☒
4	Al-Noor Farm	4	Sandy	Sialkot	☐
5	Shaheen Farm	8	Silty	Islamabad	☒
6	Falah-e-Insaniat Farm	9	Clay	Quetta	☐
7	Balochistan Ranch	10	Clay	Lahore	☐
8	Khyber Orchard	3	Loamy	Hyderabad	☐
9	Shaheen Farm	4	Clay	Lahore	☐
10	Indus River Farm	9	Loamy	Karachi	☐
11	Unity Farm	8	Sandy	Quetta	☐
12	Dostpur Farm	1	Clay	Karachi	☒
13	Green Valley Farm	1	Loamy	Multan	☒
14	Shaheen Farm	3	Loamy	Islamabad	☐
15	Sunrise Fields	5	Sandy	Faisalabad	☒
16	Sindh Delta Farm	5	Sandy	Hyderabad	☒
17	Star Aari Estate	10	Clay	Darbhanga	☐

A structured module to map out agricultural land, recording the exact plot area, geographical location, and specific soil types (Loamy, Sandy, Silty, Clay) for precise crop planning.

Crop Cycles Tracking

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Crop Cycles List

Add Crop Cycle

Cycle ID	Plot	Crop	Cycle Start Date	Cycle End Date	Cycle Status
3	Khyber Orchard	Sugarcane	1/29/2025 5:24:53 AM	7/14/2025 5:24:53 AM	Active
4	Royal Farms	Maize	11/4/2024 5:24:53 AM	2/13/2025 5:24:53 AM	Failed
5	Golden Harvest Farm	Mango	5/18/2025 5:24:53 AM	#####	Completed
6	Dostpur Farm	Maize	3/6/2025 5:24:53 AM	7/6/2025 5:24:53 AM	Active
7	Fertile Crescent Estate	Onion	7/26/2024 5:24:53 AM	2/8/2025 5:24:53 AM	Active
8	Balochistan Ranch	Potato	1/19/2025 5:24:53 AM	6/12/2025 5:24:53 AM	Active
9	Sunrise Fields	Sugarcane	9/15/2024 5:24:53 AM	#####	Active
11	Shaheen Farm	Rice	8/18/2024 5:24:53 AM	2/18/2025 5:24:53 AM	Planned
12	Shaheen Farm	Sugarcane	5/25/2025 5:24:53 AM	8/27/2025 5:24:53 AM	Active
13	Unity Farm	Sugarcane	2/22/2025 5:24:53 AM	8/25/2025 5:24:53 AM	Planned
14	Sindh Delta Farm	Citrus	2/8/2025 5:24:53 AM	8/18/2025 5:24:53 AM	Completed
15	Green Valley Farm	Cotton	3/15/2025 5:24:53 AM	5/20/2025 5:24:53 AM	Completed
16	Al-Noor Farm	Rice	#####	4/16/2025 5:24:53 AM	Failed
17	Unity Farm	Sugarcane	5/1/2025 5:24:53 AM	8/27/2025 5:24:53 AM	Failed
18	Royal Farms	Wheat	11/2/2024 5:24:53 AM	2/4/2025 5:24:53 AM	Completed
20	Balochistan Ranch	Rice	5/27/2025 5:24:53 AM	8/27/2025 5:24:53 AM	Completed
22	Azadi Farm	Citrus	7/11/2024 5:24:53 AM	#####	Completed

A dedicated lifecycle management screen that tracks the timeline and status of various crops (e.g., Sugarcane, Maize, Mango) from planting to successful harvest or failure.

IoT Sensors Data & Alerts

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All Sensors List

Add New Sensor

Sensor ID	Sensor Type	Measurement Unit	Sensor Location	PlotID
1	Nutrient	ppm	ouse No. 405, Street No. 64, Block D, Karac	Prosperity Fields
2	Humidity	°C	use No. 41, Street No. 16, Block B, Hyderab	Prosperity Fields
3	Temperature	g/m³	use No. 45, Street No. 93, Block A, Rawalpi	Green Valley Farm
4	Humidity	g/m³	ouse No. 66, Street No. 92, Block H, Lahor	Royal Farms
5	Nutrient	°C	use No. 351, Street No. 9, Block H, Hyderab	Star Agri Estate
6	pH	%	ouse No. 188, Street No. 38, Block H, Sialkc	Shaheen Farm
7	Nutrient	pH	use No. 344, Street No. 89, Block F, Faisalat	Fertile Crescent Estate
8	Nutrient	°C	use No. 176, Street No. 83, Block D, Hyderab	Balochistan Ranch
9	Humidity	%	use No. 422, Street No. 40, Block A, Rawalpi	Prosperity Fields
10	Temperature	g/m³	use No. 241, Street No. 35, Block C, Rawalpi	Falah-e-Insaniat Farm
11	Nutrient	g/m³	ouse No. 255, Street No. 36, Block F, Sialkc	Unity Farm
12	Temperature	ppm	ouse No. 91, Street No. 48, Block C, Lahor	Fertile Crescent Estate
13	Temperature	g/m³	use No. 288, Street No. 50, Block C, Rawalpi	Crescent Moon Farm
14	Nutrient	°C	use No. 97, Street No. 33, Block B, Hyderab	Azadi Farm
15	Nutrient	g/m³	use No. 349, Street No. 78, Block C, Faisalat	Al-Noor Farm
16	Nutrient	g/m³	ouse No. 241, Street No. 13, Block E, Karac	Crescent Moon Farm
17	Nutrient	nH	use No. 161, Street No. 36, Block A, Peshaw	Khyber Orchard

A highly advanced monitoring grid that logs environmental readings (timestamps, values) from field sensors and automatically flags abnormal readings with 'Warning' or 'Alert' statuses.

Agricultural Inventory

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All Inventory List

Add Inventory

Item ID	Item Name	Category	Stock Quantity	Stock Unit
1	Wheat Seed	Seed	4141	
2	Rice Seed	Seed	162	
3	Cotton Seed	Seed	3095	
4	Sugarcane Seed	Seed	3300	
5	Maize Seed	Seed	4709	
6	Mango Seed	Seed	3591	
7	Citrus Seed	Seed	2421	
8	Potato Seed	Seed	3677	
9	Onion Seed	Seed	326	
10	Tomato Seed	Seed	2336	
11	Urea Bag	Fertilizer	417	
12	DAP Bag	Fertilizer	2945	
13	NPK Bag	Fertilizer	3218	
14	SSP Bag	Fertilizer	393	
15	SOP Bag	Fertilizer	1817	
16	CAN Bag	Fertilizer	4276	
17	Pesticide A	Pesticide	1516	

A specialized stock control interface categorizing agricultural supplies—such as Wheat Seeds and Fertilizer Bags (Urea, DAP)—ensuring the farm is always ready for the next planting season.

Outbound Deliveries & Logistics

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Deliveries List

Add Delivery

Delivery ID	SaleID	Delivery Date	Delivery Status
1	1	6/22/2025 5:24:53 AM	Pending
2	2	6/23/2025 5:24:53 AM	Pending
3	3	1/18/2025 5:24:53 AM	Shipped
4	4	10/18/2024 5:24:53 AM	Cancelled
5	5	8/3/2024 5:24:53 AM	Cancelled
6	6	5/19/2025 5:24:53 AM	Delivered
7	7	4/9/2025 5:24:53 AM	Shipped
8	8	6/28/2025 5:24:53 AM	Shipped
9	9	12/17/2024 5:24:53 AM	Cancelled
10	10	12/25/2024 5:24:53 AM	Delivered
11	11	9/25/2024 5:24:53 AM	Pending
12	12	8/8/2024 5:24:53 AM	Cancelled
13	13	8/16/2024 5:24:53 AM	Pending
14	14	10/27/2024 5:24:53 AM	Pending
15	15	11/16/2024 5:24:53 AM	Pending
16	16	1/14/2025 5:24:53 AM	Cancelled
17	17	1/13/2025 5:24:53 AM	Pending

Quit App

A fulfillment tracking module linking finalized crop sales to their delivery status (Pending, Shipped, Delivered), ensuring smooth B2B operations with wholesale buyers.

Business Benefits

- ✓ Maximized crop yields by proactively monitoring real-time soil and environmental sensor data
- ✓ Streamlined farm operations by centralizing plot allocation and crop cycle timelines
- ✓ Prevented resource waste through precise tracking of seeds, fertilizers, and pesticides
- ✓ Enhanced B2B buyer relationships with an integrated delivery and customer loyalty system
- ✓ Provided farm owners with a holistic, real-time view of expenses, sales, and active operations

Project Highlights

- AgriTech Data Structuring
- IoT Sensor Logic Integration
- Crop Lifecycle Management
- Earthy, Industry-Specific UI
- Full Farm-to-Table Logistics

Future Enhancements

Future versions of this system may include:

- Live Weather API integration for predictive rain and storm alerts
- Automated SMS notifications to field managers when a sensor triggers a critical soil alert
- Drone and satellite imagery attachment capabilities for visual plot monitoring
- Predictive yield analytics using historical crop cycle data

Project Summary

FARMORA Smart Agriculture System highlights Admyon Systems' exceptional ability to innovate within the rapidly growing AgriTech space. By successfully merging field-level environmental data with enterprise-grade logistics and inventory tracking, the software empowers modern farms to operate with precision, profitability, and data-driven confidence.