

Krush Seva Kendra (Desktop Application)

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Abstract: The Krushi Seva Kendra Product Inventory System is a Java and MySQL-based desktop application designed to streamline the management of agricultural product sales. It automates key processes such as inventory tracking, billing, and product sales management, ensuring efficiency and accuracy. The system automatically generates bills upon purchase, updates product stock in real time, and supports various measurement units (kilograms, liters, milliliters) to handle different types of agricultural products effectively. Additionally, it provides a user-friendly interface with an organized layout for seamless operations. By eliminating manual errors and improving record-keeping, this system enhances productivity and modernizes the traditional Krushi Seva Kendra operations through technology-driven inventory and sales management.

Keyword:- Inventory Management, Product Stock Tracking, Agricultural Product Sales Analysis, Smart Farming Technology, Sales and Stock Evaluation

I. INTRODUCTION

Agricultural supply stores, known as Krushi Seva Kendras, are essential for farmers as they provide fertilizers, pesticides, and other farming essentials. However, traditional manual methods for managing inventory, tracking sales, and generating invoices often result in inefficiencies, errors, and data loss. To address these issues, the Krushi Seva Kendra Product Inventory System has been developed as a Java and MySQL-based desktop application that automates sales and inventory processes. This system automatically generates bills whenever a sale is completed and updates the inventory in real-time. It supports multiple measurement units (kilograms, liters, milliliters) for accurate stock management. Additionally, the system provides a clear and organized interface, allowing shop owners to manage stock efficiently and process transactions smoothly. By eliminating manual calculations and reducing billing errors, this system makes transactions faster and more reliable. It also incorporates quality checks for fertilizers to ensure

compliance with agricultural regulations. The modern and user-friendly interface is designed to make operations seamless for shop owners, enabling them to handle large transactions with ease. With its automated billing and inventory management features, the Krushi Seva Kendra Product Inventory System helps agricultural suppliers improve their service efficiency, reduce operational workload, and transition towards a more structured and technology-driven business process.

II. MODULE IDENTIFICATION

The Krushi Seva Kendra Product Inventory System consists of multiple modules that ensure smooth operations in inventory management, sales processing, and customer management. The User Authentication & Access Control module allows only authorized users, such as administrators and employees, to access the system. It includes a secure login system with role-based access to prevent unauthorized usage. The Product Management Module enables users to add, update, delete, and categorize products like fertilizers, pesticides, and seeds. It also ensures proper handling of different product units such as kilograms, liters, and milliliters.

The Inventory Management Module automates stock tracking by deducting sold quantities and alerting users about low stock levels. It also includes a quality control feature for fertilizers to maintain product standards. The Billing & Sales Module is responsible for generating invoices with unique bill numbers, including essential details such as the shop name, customer details, and transaction date. It also allows bill generation in PDF format for record-keeping. The Customer Management Module stores customer details, maintains purchase history, and provides easy retrieval of past transactions for better customer service.

The Reporting & Analytics Module helps in tracking sales performance by generating reports on daily, monthly, and yearly sales. It provides insights into

best-selling products and calculates profits to support business decisions. Lastly, the UI & Design Module focuses on creating a visually appealing user interface with an agriculture-related theme, ensuring a user-friendly experience with easy navigation. These modules work together to enhance the efficiency of Krushi Seva Kendra by automating inventory and sales processes, improving customer management, and providing valuable business insights.

III. SCOPE

The Krushi Seva Kendra Product Inventory System is designed to streamline and automate the management of agricultural products, ensuring efficiency in inventory tracking, sales processing, and customer service. The project primarily focuses on inventory management, allowing the addition, updating, and deletion of products like fertilizers, pesticides, and seeds while ensuring proper stock control and quality checks.

In terms of sales management, the system generates automated invoices with essential details such as customer information, shop name, date, and transaction details. It also ensures that product quantities are automatically updated upon each sale, reducing the chances of human error. The billing system includes PDF generation, making it easy to store and share records.

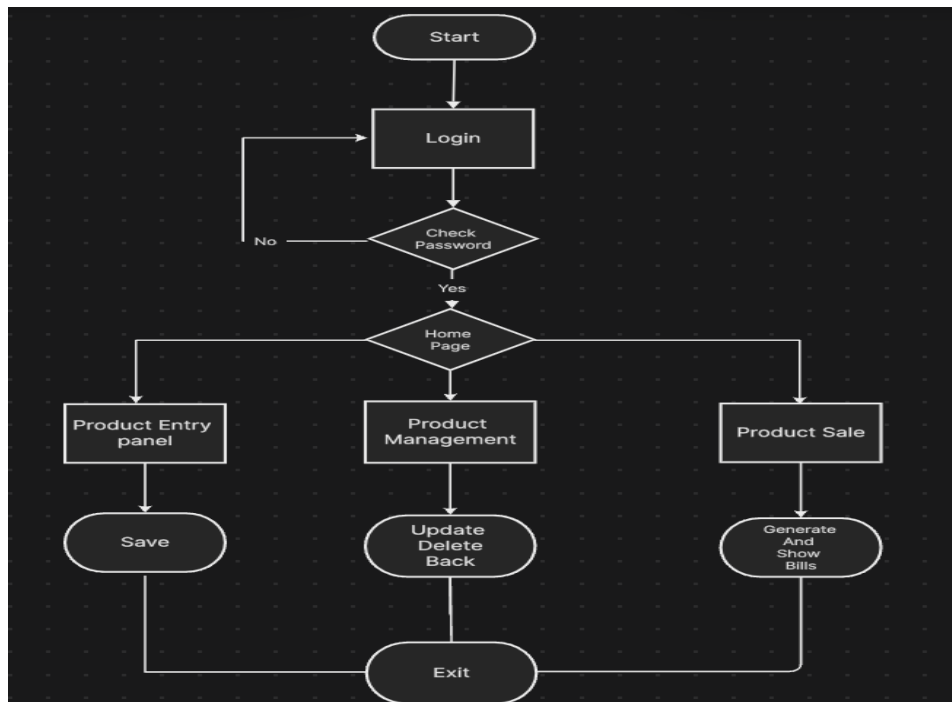
Additionally, the project includes customer management, where customer details and purchase history are stored for future reference. This feature improves customer service by enabling easy retrieval of past transactions and providing personalized recommendations.

The system also offers reporting and analytics, allowing shop owners to track daily, monthly, and yearly sales, analyze top-selling products, and make data-driven business decisions. Furthermore, the user interface (UI) design incorporates agriculture-related themes, making it visually appealing and easy to navigate.

IV. EXISTING SYSTEM

Sr.No.	Title of Paper	Year	Author	Gap Identified	Key Points
1.	Traditional Agricultural Product Inventory Management	2019	S. Verma, A. Desai	Manual stock tracking leads to errors and inefficiencies	Discusses challenges in managing agricultural product inventory manually and suggests improvements through automation.
2.	Automated Billing System for Retail Stores	2020	Dr. K. Sharma	Lacks integration with product stock updates	Explores automated billing solutions but does not focus on inventory reduction based on sales transactions.
3.	Digital Solutions for Small-Scale Retailers in Agriculture	2021	R. Kumar, L. Patel	Does not include unit-based tracking for fertilizers and pesticides	Introduces digital tools for managing retail shops but lacks specific functionalities for agricultural products.
4.	Improving Customer Management in Agricultural Retail	2018	J. Thomas, M. Singh	No proper system for maintaining customer purchase history	Proposes methods to improve customer management in agricultural shops but lacks implementation details for purchase tracking.

V. ARCHITECTURE DIAGRAM



VI. PROPOSED SYSTEM

1. Admin Login – Secure login system for the shop owner/admin to manage inventory and sales data.
2. Product Entry & Management – Allows the admin to add, update, and remove agricultural products (fertilizers, pesticides, seeds) with unit-based tracking.
3. Database Management – Stores and organizes product details, stock levels, sales transactions, and customer records
4. Automated Billing System – Generates and stores bills for product sales, automatically adjusting stock levels upon purchase.
5. Inventory Tracking & Alerts – Monitors stock availability and provides alerts for low stock to prevent shortages.
6. Customer Management & Purchase History – Maintains customer purchase records and sends WhatsApp notifications for billing via Twilio integration.
7. Reports & Analytics Dashboard – Displays sales reports, stock status, and financial insights to help the admin make data-driven decisions.

VII. RESULT

Samruddhi Krushi Aajare,Peth-Vadgaon

Login ID: Samruddhi123

Password: *****

Login Logout

ID	Product Code	Name	Type	Quantity	Unit	Price
72	POTFER8	potash	Fertilizers	109	Kg	1250.0
80	UREFER2	Urea	Fertilizers	613	Kg	1000.0
81	SULFER3	Sulphet	Fertilizers	246	Kg	1200.0
82	ROUPES4	Round-off	Pesticides	42	Liter	750.0
83	VIDPES5	Vidmar Super	Pesticides	54	Liter	850.0
85	10-FER16	10:26:26	Fertilizers	48	Kg	1000.0
90	HAMPES8	Hamala	Pesticides	8	Liter	750.0
91	AMMPER9	Ammonium Sulfate	Fertilizers	48	Kg	1500.0
93	MAGFER18	Magnesium Sulfate	Fertilizers	50	Kg	1250.0
95	KHUEQU10	Khurpi	Equipment	9	No Unit	750.0
97	HPHSEE12	hfh	Seeds	3	Kg	100.0
98	16-FER13	16:32:16	Fertilizers	48	Kg	1250.0
99	DAPPER14	DAP	Fertilizers	48	Kg	1000.0
100	IFFFER15	iffco	Fertilizers	10	Kg	1470.0

Update
Delete
Back

Customer Name:

Select Product:

Quantity to Sell:

Unit:



Generated Bill

Samruddhi Krushi Awjare, Peth-Vadgaon
Contact: 9699138886

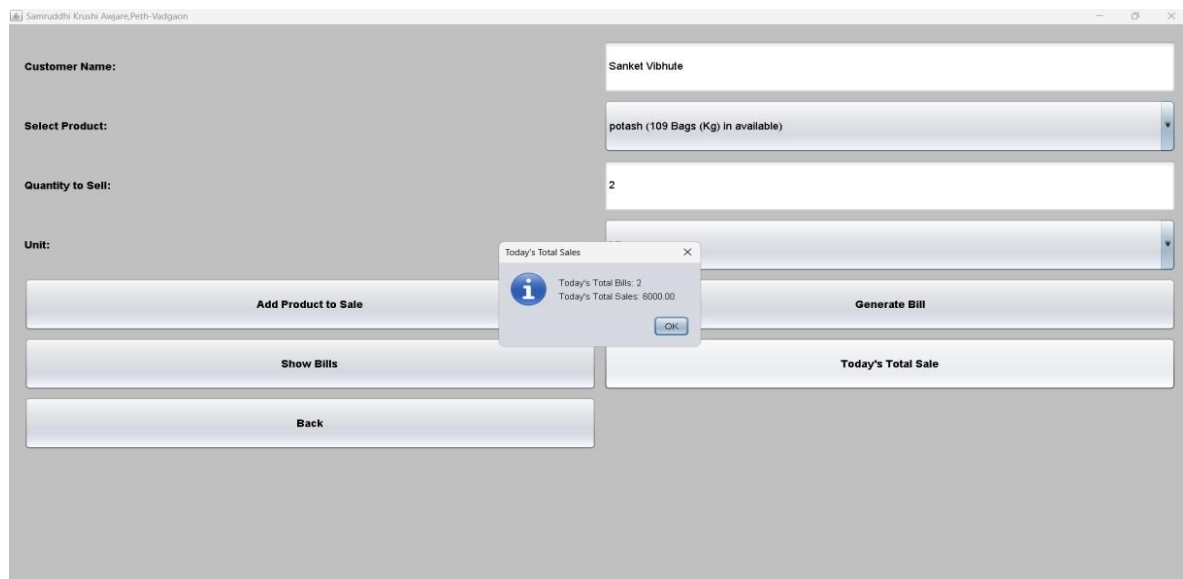
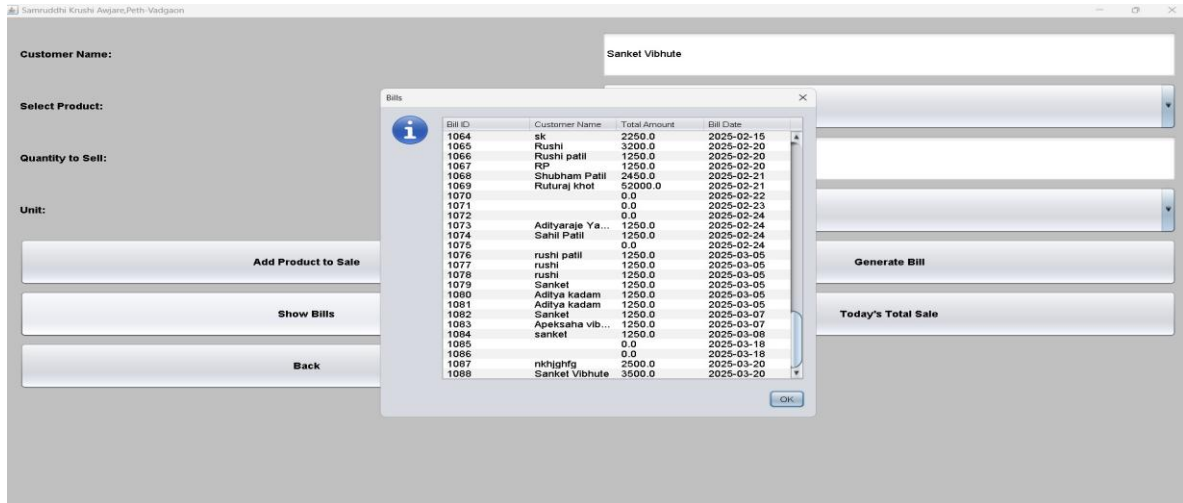
Date: 20/03/2025
Customer Name: Sanket Vibhute

Product Name	Type	Quantity	Unit	Price	Total
Urea	Fertilizera	2	Kg	1000.00	2000.00
Round-off	Pesticides	2	Liter	750.00	1500.00
Total Amount: 3500.00					

Thank you for your purchase!

Bill

Sale



VIII. CONCLUSION

The Krushi Seva Kendra Product Inventory System successfully addresses the challenges faced by agricultural product stores by providing an efficient and automated solution for inventory management and billing. This system ensures accurate stock tracking, reduces manual errors, and enhances the overall operational efficiency of the shop. By incorporating features such as real-time stock updates, unit-based inventory handling, automated bill generation, and customer information management, it simplifies business operations and improves customer service. Unlike generic inventory software, this system is specifically designed for Krushi Seva Kendra, ensuring that fertilizers, pesticides, and other agricultural products are managed correctly based on their unique unit measurements. The integration of an intuitive user interface, along with database support, allows for

seamless data storage and retrieval, making the system highly reliable. With the implementation of this inventory system, agricultural shop owners can optimize their resources, minimize losses due to overstocking or stock depletion, and enhance their decision-making process. Overall, this project provides a comprehensive, user-friendly, and agriculture-specific inventory management solution that can significantly improve business efficiency and customer satisfaction in the agricultural sector.

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