

**DAILY TRANSACTIONS MANAGEMENT SYSTEM**

**TARGETED FOR FINANCIAL AGENTS**

**AUTOMATED FINANCIAL RECORD, CUSTOMER RELATIONSHIP &  
INVENTORY MANAGEMENT**

**Live Demo:** [View the Live Demo](#)

- Login username: **demo**
- Login password: **demo1234**

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## 1. Introduction

The Daily Transactions Management System is designed to streamline the recording and management of financial transactions for agents. This web-based application enables agents to efficiently process money transfers and withdrawals, while simultaneously sending SMS notifications to customers to confirm the successful completion of their transactions. This project leverages an SMS API, which can be integrated with any telecom provider's API of your choice.

### Key Features:

- **Transaction Management:** Add, update, and delete both deposit and withdrawal transactions.
- **SMS Notifications:** Automatic SMS notifications sent to customers after each transaction (requires an SMS API).
- **Real-time Analytics:** Analytics for transactions available in daily, weekly, monthly, annual, and lifetime intervals.

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## 2. Features

### Transaction Management Features

Feature	Description
<b>Register Transaction</b>	Allows the agent to add new transactions, including both deposits and withdrawals.
<b>SMS Feedback to Customer</b>	Customers receive SMS notifications after transactions are added, updated, or deleted.

<b>Real-time Transaction Analytics</b>	View transaction analytics on a daily, weekly, monthly, or yearly basis.
<b>Add, Delete, Update Transaction</b>	Full functionality for managing transaction records, including adding, deleting, and updating details.

## Inventory Management Features

Feature	Description
<b>View Transactions</b>	View all transaction records with the ability to filter and sort by specific criteria.
<b>Add Products</b>	Add products to the inventory, either individually or in bulk.
<b>Sell Products</b>	Products sold are removed from inventory automatically.
<b>View Sales</b>	Track sales over a given period: Today, yesterday, this week, this month, or annually.
<b>Stock Status</b>	View products that are out of stock and manage their removal.
<b>Update/Remove Products</b>	Update existing product information or remove products from the inventory.
<b>Real-time Inventory Analytics</b>	Visualize sales trends and product statuses in the inventory.

## Other Features

- **Bulk Product Registration:** Register multiple products purchased at once and automatically distribute the total amount across the items.
- **Stock Updates on Sales:** Products sold are automatically removed from inventory and marked as sold.
- **SMS Notifications:** Customers receive SMS updates after transactions are added, updated, or deleted.

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## 3. Problem Statement

This system is targeted at financial agents and small businesses, particularly in East and Central Africa, that handle daily transactions. Existing methods for transaction tracking are often manual, prone to errors, and can lead to delays and miscommunication. Furthermore, customers often do not receive timely updates on their transactions, which can cause dissatisfaction. The system also aims to address inventory management challenges faced by agents in handling products and sales.

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## 4. Importance of the Project

The system offers the following key benefits:

Benefit	Description
Efficiency	Saves time by automating transaction recording and notifications.
Accuracy	Reduces human error in transaction entries and inventory management.
Customer Satisfaction	Provides customers with immediate transaction feedback, improving trust.
Data Security	Ensures that sensitive data is securely stored and accessed.
Consistent Records	Real-time sales and transaction analytics ensure accurate financial tracking.

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## 5. Main Objective

The primary goal of the Daily Transactions Management System is to develop a comprehensive and efficient web application that:

- Accurately records daily financial transactions such as deposits and withdrawals.
  - Sends immediate SMS notifications to customers upon transaction completion.
  - Provides a user-friendly interface for both agents and customers.
  - Manages inventory and product sales effectively.
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## 6. Specific Objectives

To achieve the main goal, the project will include the following objectives:

Specific Objective	Description
User Interface Design	Create an intuitive and responsive UI for agents to easily input and manage transactions.
Transaction Handling	Implement secure and efficient backend logic for transaction processing and data storage.
SMS Integration	Integrate with a third-party SMS API to send real-time transaction updates to customers.
Data Reporting	Develop tools for generating daily, weekly, and monthly reports for transaction tracking.
Error Handling	Ensure robust error handling and logging for system stability and maintenance.

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## 7. Design Methodology

### Technologies Used

Technology	Description
Backend	Django: A high-level Python web framework for rapid development.
Frontend	HTML: Markup language for structuring web pages. Bootstrap: For responsive web design. JavaScript: For enhanced functionality and interactivity.
Database	SQLite: A lightweight relational database for storing data.
SMS Service	A RESTful API for sending SMS notifications (customizable to any provider).

## Development Approach

Approach	Description
Agile Methodology	Iterative development with regular feedback from stakeholders.
MVC Architecture	Use of Model-View-Controller design to separate concerns for easier maintenance.
Version Control	Git for tracking changes and collaboration.

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## 8. Conclusions and Future Work

The Daily Transactions Management System provides a robust solution for managing financial transactions while ensuring effective communication with customers. This system is scalable and adaptable to future enhancements.

### Future Enhancements

Enhancement	Description
User Authentication	Implement secure authentication for user data protection.
Payment Gateway Integration	Add support for various payment methods, including credit cards and mobile payments.
Analytics Dashboard	Build a dashboard to visualize transaction trends and customer behaviors.
Mobile Application	Develop a mobile app to provide access to the system on the go.
Integration with Telecom APIs	Directly integrate with telecom companies for smoother transaction processing.

This project not only improves daily transaction management but also lays the foundation for more sophisticated financial services in the future.

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