

# **Retail Management System**

## **Final Project Proposal**

Diploma in Software Engineering 23.1

School of Computing

National Institute of Business Management

Colombo 07

**Project title:**

Project Proposal for a Retail Management System For Ekanayake Printers & Bookshop (Pvt) Ltd.

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**Name of Course:**

Diploma in Software Engineering 23.1F

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## **Introduction of the Organization**

Ekanayake Printers & Book Shop (Pvt) Ltd. was the first printing press and book-shop in Veyangoda. Established in 1935, it has provided a great service to the area in terms of stationary and printing works ever since. They specialize in printing, provides a wide range of stationary, books and school items and other services such as photo editing, precision paper trimming, custom picture framing, book-binding and advertisements for small businesses. This institution, founded by Mr. Ekanayake, is currently being run by his son.

## **Organization Structure**

The organization's structure includes the owner, a manager, and two workers who handle various tasks related to printing, customer service, and managing inventory.

## **Current Operations in Organization**

Currently, the organization relies on manual pen and paper methods along with file-based Excel spreadsheets to manage its operations, including stock, customer receipts, supplier information, and profit analysis.

## **Users and Responsibilities**

- Owner: Oversees overall operations, strategic planning, and decision-making.
- Manager: Manages day-to-day activities, coordinates with suppliers, handles customer inquiries, and supervises workers.
- Workers: Responsible for printing tasks, managing inventory, and assisting customers.

## **Problem Definition**

The current manual and spreadsheet-based system is prone to errors, inefficiencies, and delays. It lacks the capability to provide real-time insights into stock levels, profitability, and customer trends. Additionally, manual processes consume valuable time and resources, hindering productivity and growth potential.

## **Project Objectives**

- Automate and streamline inventory management processes.
- Enhance customer service and satisfaction through efficient order processing and tracking.
- Improve decision-making by providing accurate and timely data on stock levels, sales, and profitability.
- Increase operational efficiency and reduce costs associated with manual tasks.

## **Proposed Solution**

We plan on implementing a Retail Management System tailored to the specific needs of Ekanayake Printers & Bookshop (Pvt) Ltd. Our system will include modules for inventory management, supplier / customer relationship management, sales analysis, and financial reporting. Additionally, it will integrate with existing hardware such as bar-code scanners and receipt printers to further streamline operations.

# **Project Scope**

## **Inventory Management:**

- Track and manage stock levels of printing materials, stationery, and school items.
- Notify when certain items are nearing low stock levels.

## **Sales and Customer Management:**

- Process customer orders, generate receipts, and manage sales transactions.
- Maintain customer records, preferences, and purchase history.

## **Supplier Information:**

- Store and view supplier information, including contact details and pricing.

## **Profit Analysis:**

- Analyze sales data, profit margins, and revenue trends.
- Provide insights into the most profitable and trending products.

## **Integration and Hardware Compatibility:**

- Ensure compatibility with existing hardware, such as bar-code scanners, and receipt printers.
- Integrate seamlessly with other business processes and systems.



**Security:**

- Use a login page before granting access to the system.
- Define user roles based on job responsibilities and access requirements, such as Owner, Manager, and Worker.
- Incorporate logging mechanisms to record user activities, including login attempts, access requests, and system interactions.
- Encrypt sensitive data.

**Scalability and Future Enhancements:**

- Design the system in a way which accommodates for additional feature updates.

**User Training and Support:**

- Conduct training sessions and provide the necessary documentation to familiarize the staff members with the new system.

## **Conclusion**

In summary, our solution satisfies the organization's need for a more efficient and reliable Retail Management System. By adhering to our project scope, we aim to improve their operational efficiency, enhance customer satisfaction, and help them grow as a business.

# Approval Letter

19.02.2024

The Course Director,  
School of Computing,  
National Institute of Business Management,  
No 120/03,  
Wijerama Mawatha,  
Colombo 07.

Dear Sir,

## Approval for implementing Stationery & Printing Press Management System

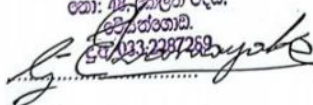
This is to inform you that our Press has approved the solution which was given to the Stationery & Printing Press Management System by the solution of NIBM (CODSE23.1F-060, CODSE23.1F-094, CODSE23.1F-095, CODSE23.1F-175).

The Current System is a manual system & there is no website for our Press which was a huge problem to Manage the Process of Our Press.

Our Press appreciate & approve the automated system which was proposed by the students after studying our current system.

It is new experience for our Press to Work with students & we are pleased to help them throughout the project.

Yours Faithfully,

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The Owner

Ekanayake Printers