Profit Pulse: Analytics Suite

Team Members

Aaryan Bose 23517057

Jai Singh Bisht 23517050

Siddhant Jain 23517058



Ms. Kirti Jain **(**Department of Computer Science)

Abstract

The Profit Pulse: Analytics Suite is a comprehensive software solution developed using Python and aimed at enhancing the efficiency of grocery store operations. This project provides a user-friendly interface for both customers and store administrators, offering features such as inventory control, order processing, and data analysis. The integration of Python facilitates seamless application development.

Motivation

The motivation behind the Profit Pulse: Analytics Suite Project stems from the need to address challenges faced by traditional grocery store management systems. Manual record-keeping, inefficient inventory control, and a lack of data analysis tools often lead to operational inefficiencies and missed business opportunities. With the increasing demand for streamlined and technologically advanced solutions in the retail sector, the Profit Pulse aims to provide a modern and automated approach to grocery store management.

Methodology

1. **Requirement Analysis: -**

* Identify and document the functional and non-functional requirements of the Profit Pulse.
* Understand the key features, user roles, and data entities involved in the system.

1. **Data Analysis and Visualisation:**

* Integrate Matplotlib and Pandas libraries to generate comparison charts and graphs for cost vs. MRP, cost vs. total units sold, and total units imported vs. total units sold.
* Develop functions to retrieve relevant data from the database for analysis and visualization.

1. **Data Entry and Validation:**

* Implement functions for adding new grocery items, validating user inputs, and handling errors.
* Ensure data integrity by incorporating validation checks, such as verifying unique item codes and ensuring proper input formats.

Facilities Required

**Software’s required:**

* Visual Studio Code for Python
* Multiple Search Engines (E.g. Google, edge, bing, yahoo) for testing website.
* compatibility and responsiveness.

BIBLOGRAPHY

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