

Summary Report: Inventory Management System

Introduction

This Inventory Management System, developed by Abdul Moiz Arsalan, is a Python-based console application designed to manage and track products within an inventory. The system allows users to add new products, update the quantity of existing products, and display the current inventory.

Features

1. Add New Products:

- The system allows the user to add a new product to the inventory by entering the product's name, price, and quantity.
- The system checks if the product already exists in the inventory to prevent duplicate entries.

2. Update Product Quantity:

- Users can update the quantity of an existing product by providing the product's name and the new quantity.
- The system validates the input to ensure that the quantity is an integer.

3. Display Inventory:

- The system provides a display of all products currently in the inventory, showing the name, price, and quantity of each product.
- It also formats the output to present the data clearly and concisely.

4. User Interaction:

- The system is menu-driven, offering the user four main options: Add Product, Update Quantity, View Inventory, and Exit.
- It handles invalid inputs and guides the user to provide correct data.

Workflow

The program begins with an empty inventory and continuously prompts the user to select an action from the menu. Depending on the user's choice, the corresponding function is called to add a product, update product quantity, or display the current inventory. The program ensures that all operations are user-friendly, with appropriate messages for errors and successful actions.

Conclusion

The Inventory Management System is a simple yet effective tool for managing small-scale inventory operations. It allows users to keep track of products and their quantities in a streamlined manner. The system's validation checks and user prompts contribute to an efficient and error-free user experience. This project demonstrates fundamental skills in Python programming, including input handling, list manipulation, and user interaction.