

CSE-174 PROJECT PROPOSAL

Project Name: Inventory Management System

Group Number: 04

Team Members:

1. Md. Samiul Alam Rezon (202322033)
2. Lauhe Mahfuz Siam (202322034)
3. Md. Adnan Sadik (202322035)
4. Safwan Ibn Ahmad (202322009)
5. Arnab Nag (202322047)
6. Jubair Haider (202322046)
7. Kazi Tahsin Shafayet (202322038)
8. Indillah Mursalin (202322042)
9. Silvia Rahman Shamanta (202322041)

Department: Aeronautical Engineering 15th Batch

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Inventory Management System

Introduction:

The purpose of this application is to manage any inventory system of any kind of organization with efficiency and ease. This will allow a user to add new products, modify product details, remove product, view products, sell product from inventory, keep record of the status and number of the products and keep track of top selling and least selling products etc.

Features:

1. **Friendly Interface:** It's very easy for users to figure out what to do with the user interface and every step is guided as much as possible.
2. **Real-Time Inventory Tracking:** Implement a real-time tracking mechanism to monitor stock levels, reducing the risk of stockouts or overstock situations.
3. **Reporting and Analytics:** Generate comprehensive reports and analytics to provide insights into sales trends, top selling items and other key performance indicators.
4. **Ease of Use:** Anyone can use this program with its guided interface and its easy accessibility.

Accessibility:

Accessibility is a primary objective of this Inventory Management System. Designed with inclusivity in mind, this program ensures that individuals of all backgrounds and abilities can easily navigate and utilize its functionalities. By employing a user-friendly command line interface and guided steps, it promotes ease of use, making it accessible to everyone regardless of their technological expertise.

Functionalities:

1. **Addition of Products:** Each product can be added with necessary properties by the user using only a set of questions and it can be stored to be used later.
2. **Modification of Product Details:** Products and their properties e.g. quantity, VAT, discount etc. can be modified at any time using a function in the menu.
3. **Removal of Products:** Products already existing in the system can be later removed using their unique identifier.
4. **Viewing:** Using this program, a user can see all the products and items added to an organized list and see all the necessary data required.
5. **Purchasing:** This program can enable users to sell products and keep track of the sales, the taxes, the discounts etc.

6. **Analytics:** Users can use this program to keep track of sales information like top selling products, sales trends etc.
7. **Generating Product Quantity Chart:** Users can use this program to generate charts to observe the total quantity of certain products.
8. **Receipt Generation:** Users can generate receipts when sales occur which contain all necessary information like price, vat, taxes, discounts etc.

Implementation Tools:

The proposed Inventory Management System will be developed using the C programming language, ensuring high performance, efficiency, and compatibility with a wide range of hardware and operating systems.

Limitations:

This program doesn't have any Graphical User Interface (GUI) and rather uses a minimalist command line interface. This program also doesn't contain any permanent database because of technological stack limitations.

Future Scope:

This program can help businesses like grocery shops, bookstores and other businesses which require keeping an inventory. It can help with doing tasks which are tough to do using pen and paper with ease and it can also help keeping track of sales trend which can help businesses to grow their business even more and stay competitive in evolving markets.