NIE Institute of Technology, Mysuru

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Inventory Tracker

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Brief Project Overview

- The inventory management ensures that the company always has the required materials and products in hand while keeping the cost as low as possible.
- Inventory Management refers to the process of supervising and controlling the stock items of a company.
- Typically, Inventory Management Systems are used by firms that either sell a product or manufacture a product for the purpose of accounting all the tangible goods that allow for a sale of a finished product, or parts for making a product.

Project Uniqueness

+Easy and intuitive to use.

+Our project helps in organizing and maintaining data with well designed file structures and by eliminating the legacy methods of maintaining data in physical files.

+No maintenance required (Overhead of maintaining all the data in physical files can be eliminated).

+Program takes less space on the harddisk.

Project Analysis

- We have used **Document Processing** and **Indexing** in this project.
- **Document Processing** is used to collect and manipulate data to produce meaningful information.
- It includes the basic file operations.
- **Indexing** is a data structure technique which allows you to quickly retrieve records from a database file.
- An Index is a small table having only two columns. The first column comprises a copy of the primary or candidate key of a table. Its second column contains a set of pointers for holding the address of the disk block where that specific key value stored.

System Requirements

+No special hardware or software is needed for this program.

+But the minimum specs are:

+Processor with 233Mhz or higher clock speed.

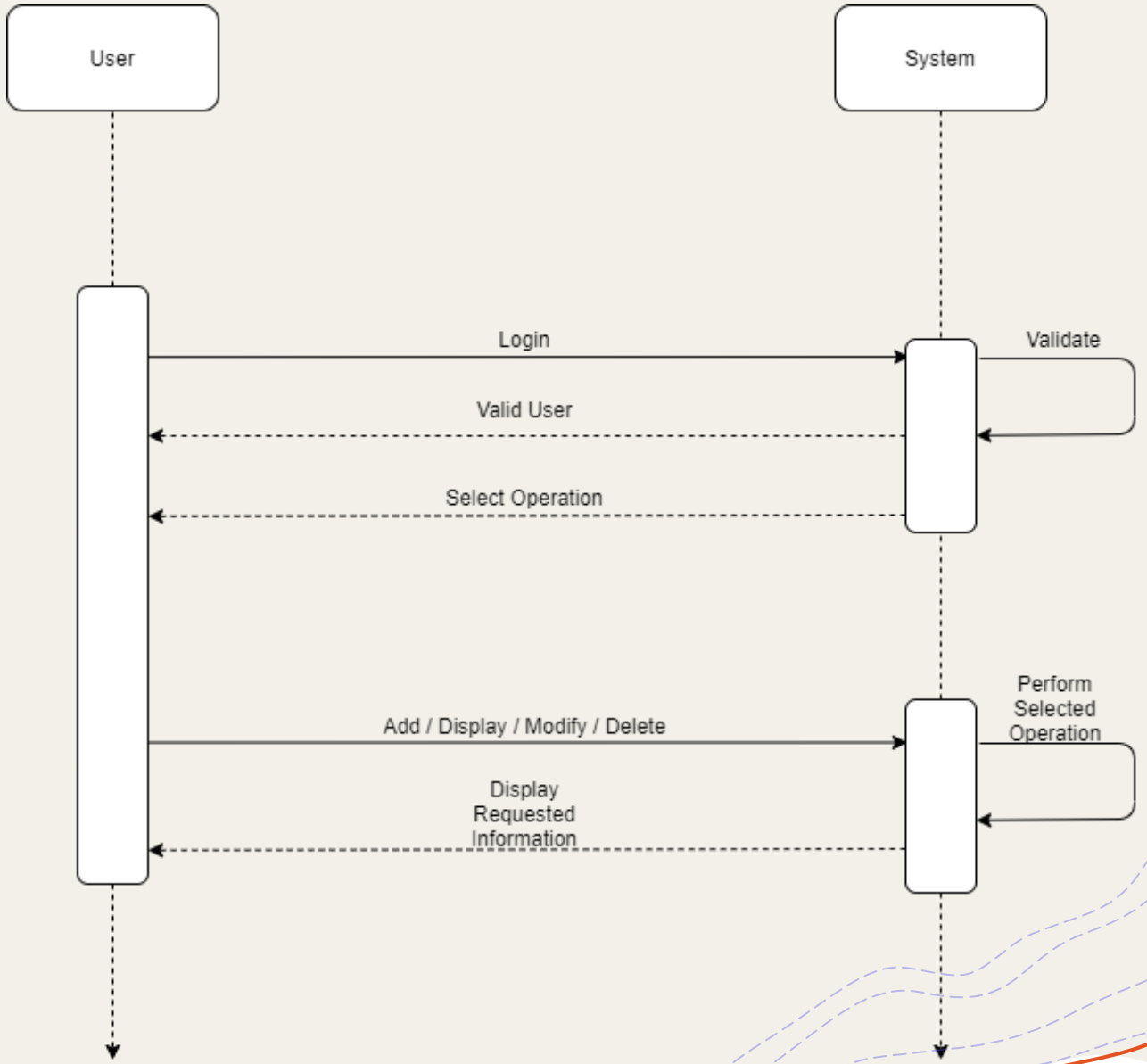
+128 Megabytes or higher RAM.

+Windows XP or newer OS.

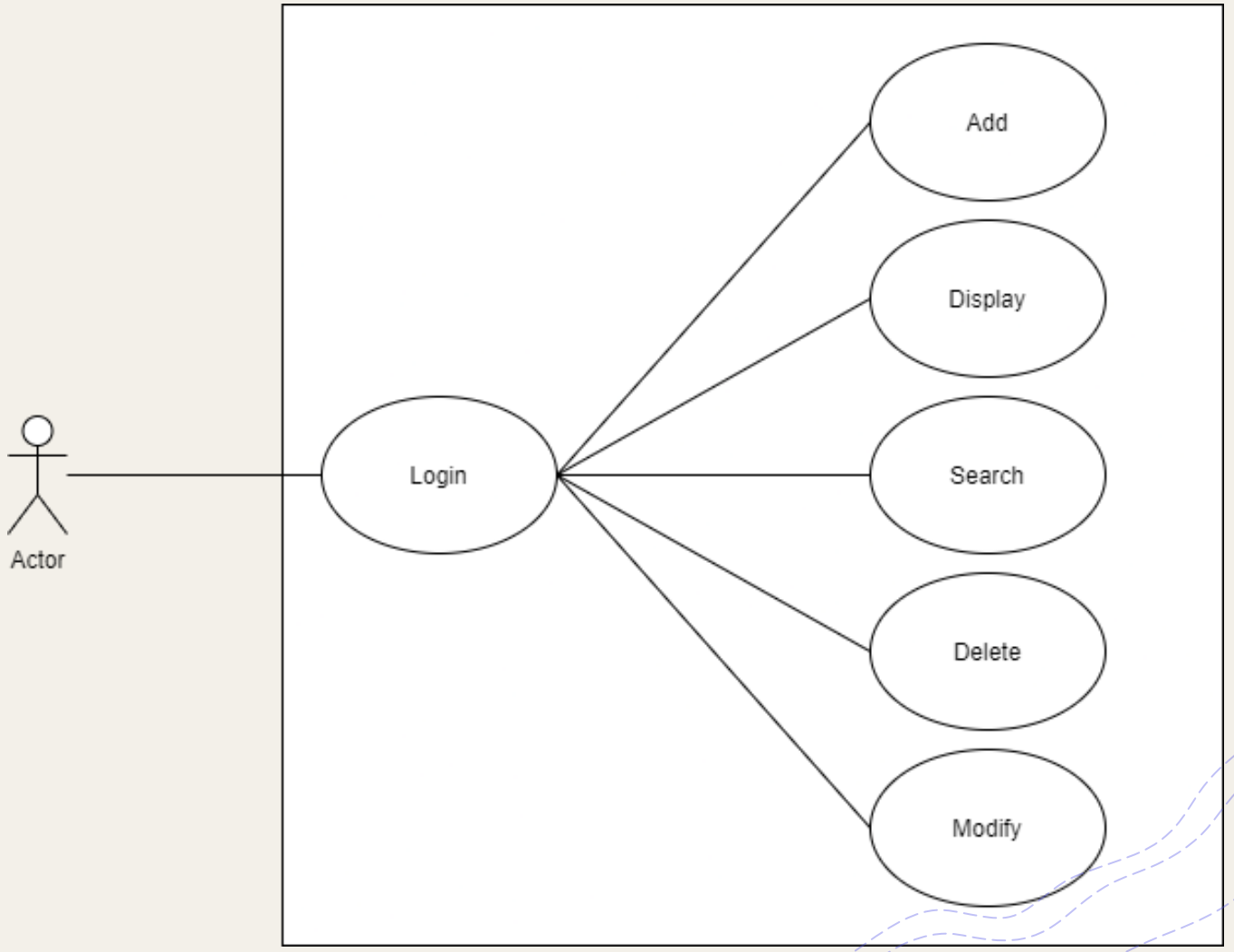
Literature Survey

+ Impact of Inventory Management on Firm's Efficiency (This study investigated the effect of various inventory management factors on firm's efficiency).
+ Inventory Management as a Determinant for Improvement of Customer Service
+ An Assessment of the Effects of Inventory Management Procedures on Performance
+ A Study on Relationship between Inventory Management and Company Performance (This study textile store as an example for the case study)

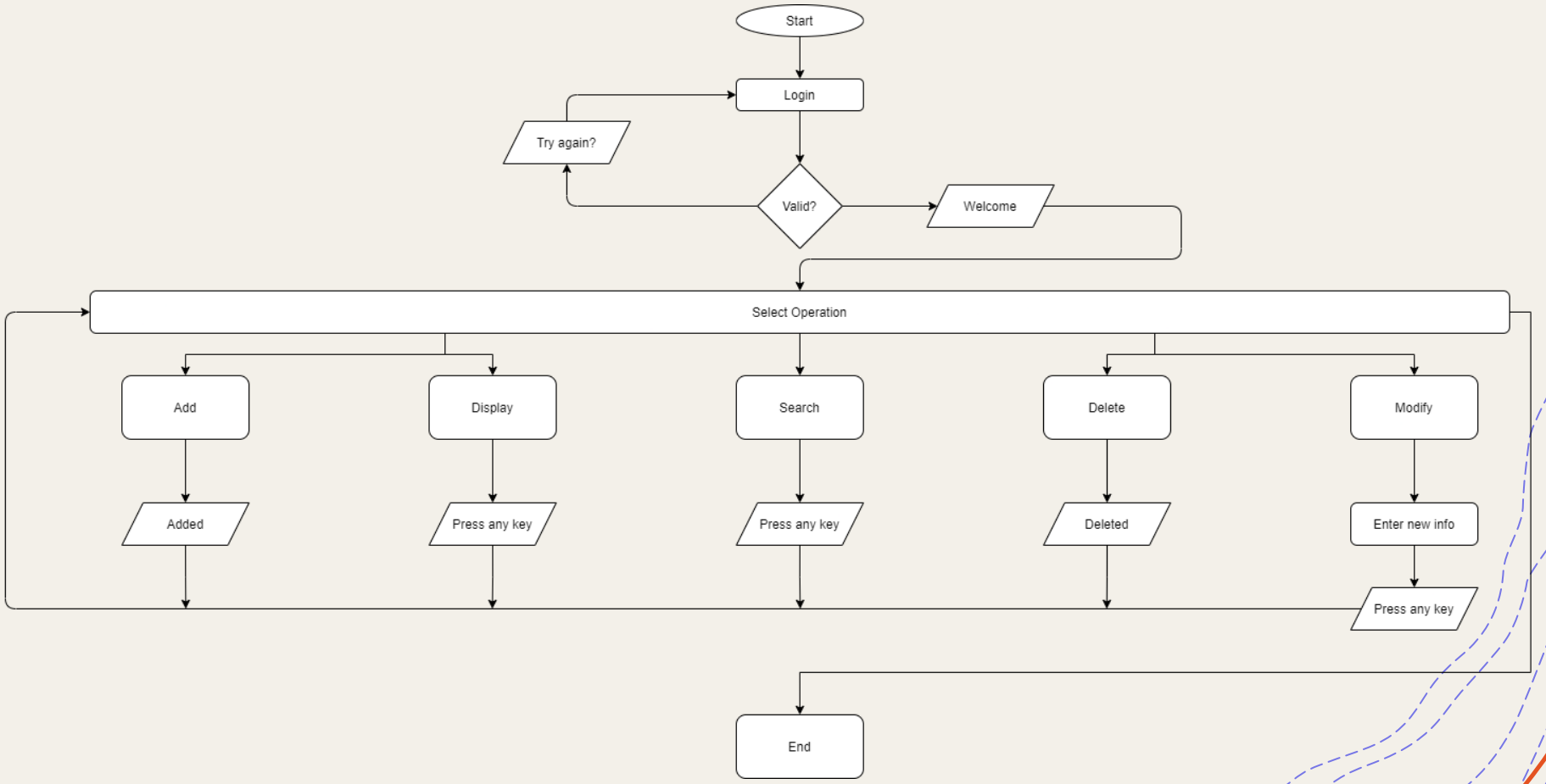
Sequence Diagram



Use Case Diagram



Activity Diagram



Output Model

Inventory Tracker

Enter your password: <enter password here>

Welcome <your name here>

1. Add
2. Display
3. Search
4. Delete
5. Modify

Choose your option: <your option here>

Add

<enter details like product ID, product name, product stock, product type etc.>

Product Added Successfully!

Display

<displays product ID, name, stock, type etc. of all the product>

Search

<enter either product ID or product name to show the details of the desired product>

Delete

<enter either product ID or product name to delete the desired product>

Modify

<enter either product ID or product name to select the desired product and then add the new details>

Future Enhancement

+We could make a GUI for this.

+We can also make a web app for this and host it on a server for commercial use.

+We can also add billing system.

Conclusion

- Overall, this is just a basic implementation of an inventory tracking program.
- This is helpful in maintaining the inventory in a simpler way.
- The code used in the program is robust and understandable which helps the user to execute and retrieve the required records with ease.

Thank you!

References:

GitHub repos for code reference

Diagrams.net for the system architecture diagrams