**PROBLEM STATEMENT AND RELEVANCE**

The purpose of this project is to identify the problems generated because of the fact there’s still lack of digitization in stores that sell various products. This makes the process of buying and selling slow and the customers as well as the shopkeepers face difficulties. Hence the need for a digital Store Management System is utterly significant. The reasons why a Store Management System, like our project, is a very basic and relevant need for all the non-digital stores around the world are -:

1. CURRENT GAPS IN PRE-EXISTING SYSTEMS -

Lack of ease of access and use: Due to lack of digital systems in many retail stores,the customers face the deficiency of ease of access to the products and their details.The deficiency is also faced by the store managers who find it difficult in finding various product details, in adding product details or in sorting the items.

1. FACTORS CONTRIBUTING TO THE PROBLEM -

Lack of resources is the biggest factor here. The other factor is lack of awareness.

1. HOW OUR PROJECT HELPS -

* Our project is an easy-to-use, cheap (if bought) store management system which can be used by shopkeepers with the only requirement being of a computer.
* Increases efficiency: This project, if used can increase the pace of the process of buying and selling by many times.
* Provides easier access to the data of the items to the customers and to the shopkeepers as well.
* Reduction of Cost: The use of such a data management system can reduce manual labour and the logistical costs like those of stationery etc.
* Makes the process of shopping exciting for the users. Hence such systems can help in attracting more customers.
* Safety: Because this data management system is on a digital platform, the data is safer as it wont get lost or deleted easily. Also the presence of a login feature with a password, it limits absolute access to people other than the store managers who might misuse the data.

**LIST OF DATA STRUCTURES USED**

1. **ARRAYS:**

* It is used to represent multiple data items of same type by using only a single name.
* It can be used to implement other data structures like linked lists, stacks, queues, trees, graphs etc.
* 2D arrays can also be used to represent matrices.
* We have used arrays in our project to store item names and brand names.

1. **LINKED LISTS:**

* They are dynamic in nature and allocate the memory when required.
* Linked lists make the process of insertion and deletion significantly easier.
* Through linked lists,we can easily execute Stacks and Queues.
* Linked lists are preferable over using File Handling as it is easier to access, manipulate, change and organizing data in a linked list.
* We have used linked lists in our code for deletion of items, addition of items and displaying the items.

**DISTRIBUTION OF TASKS**

**PROGRAM:**

* **Logic of the Code (Jatin Baghel, Kshitij Vats, Raj Aryan Sharma)**
* **Design, Menu page and Flow of user-interface,Exit message (Raj Aryan Sharma)**
* **Password function, Cart function using linked list, its display and its features, Final testing and rectification(Jatin Baghel)**
* **Main function, structure containing details of items and use of arrays, Input function for entering details of newly added item and their display(Kshitij Vats)**

**REPORT:**

* Introductory page, Problem statement and relevance, List of data structures used, Distribution of tasks (Raj Aryan Sharma)
* Description of important functions, Algorithm of used functions (Kshitj Vats)
* Flowchart, Screen-shots of output results (Jatin Baghel)