**Synopsis**

Topic:

Supermarket Management System

Objective:

The objective of the “Supermarket Management System “

is to produce software which manages the sales activity done in a supermarket. The users will consume less time in calculation and the sales activity will be completed within a fraction of seconds whereas manual system will make the user to write it down which is a long procedure, and it also consumes a lot of time.

The data will be stored in a CSV file. Because of this software, paperwork will be reduced, and the user can spend more time on monitoring the supermarket. The project will be user friendly and easy to use.

Project Description:

The “Supermarket Management System” is based on the sales transaction of items in a supermarket. This system has 2 main parts i.e., the User part and the Admin part. The item names along with their price, quantity available and expiry date, are added to a multi-linked list based on the categories they belong to. Each category is given a unique id based on which it is available in the linked list. Similarly, all the items are given unique ids according to the category they belong to. This authority is given only to admin. Any modifications to be done in the item price or the item quantity can be done only by admin. He also has the right to delete any item. As the customer views the products, he is supposed to enter the item id and the quantity of the item he wants to purchase. The system will display a prompt saying item has been added to the cart if the item is present and the quantity entered is available otherwise it will display the required error message. The user can also delete any item from the cart. Finally, the total amount will be displayed on checkout.

Modules:

1. Admin login
   1. The admin should enter the correct password in order to get access to the system’s database
   2. After login, he can view all the items, update price or quantity of any item or delete any item
   3. The admin can logout from the application after which no further operations will be allowed. The admin needs to log back in with the correct password to proceed further.
   4. The admin will get a maximum of 3 tries to login if he gives the wrong password
2. User login
   1. The user has an option to view all the items in the supermarket.
   2. He can add any item to the cart along with the required quantity. If the quantity or the item is not available , an appropriate error message is displayed.
   3. He can also view the items in the cart. If required, he can also delete items from the cart.
   4. On checkout, the final bill is displayed.
   5. The user can logout from the application after which no further operations will be allowed. The user needs to enter again into the system in order to proceed further.

Overview:

|  |  |
| --- | --- |
| Category 1 | Qty |
| Down pointer | Right pointer |

Item(Name, Price, Expiry date) | Next pointer

Item(Name, Price, Expiry date) | Next pointer

|  |  |
| --- | --- |
| Category 2 | Qty |
| Down pointer | Right pointer |

Item(Name, Price, Expiry date) | Next pointer

Item(Name, Price, Expiry date) | Next pointer

|  |  |
| --- | --- |
| Category 5 | Qty |
| Down pointer | Right pointer |

|  |  |
| --- | --- |
| Category 3 | Qty |
| Down pointer | Right pointer |

|  |  |
| --- | --- |
| Category 4 | Qty |
| Down pointer | Right pointer |

Item(Name, Price, Expiry date) | Next pointer

Item(Name, Price, Expiry date) | Next pointer

Item(Name, Price, Expiry date) | Next pointer

Item(Name, Price, Expiry date) | Next pointer

Item(Name, Price, Expiry date) | Next pointer

Item(Name, Price, Expiry date) | Next pointer

SOFTWARE REQUIREMENTS:

1. C Programming
2. CSV File

CONCLUSION:

“**Supermarket Management System**” software developed for a

company has been designed to reduce the time taken to handle the sales activity. It is designed to replace an existing manual record system for reducing time taken for calculations and for storing data. This system will reduce manual work, calculations and will also provide periodic reports any time