# PROJECT DESCRIPTION:

**Shopify Plaza**

It is a shopping store management software.The software is made to be operated by both the customer and the administrator.

# TOOLS USED:

* The code is written using C language.
* Besides using basic input output ,linked list data structure and file handling have been incorporated in the project for memory allocation and management.
* The whole program is built using ADT format having 3 files :

1.header.h

2.projectfile.c

3.functions.c

* .csv files are used to store bill details, customer records and inventory record .

1.Bill\_details.csv

2.Customer\_details.csv

3.Inventory.csv

* The whole program has been modulated into a number of functions to make it efficient and user friendly.
* The .csv files are automatically updated to keep the stocks ,customer details and bill records up to date.

# STRUCTURES

1. typedef struct node

{

int id;

char category[500000];

char name[500000];

int qty;

int price;

char location[10];

struct node \*next;

}item;

(a)Stores the item .

(b)Contains attributes of an item a next pointer which points to the next node containing next item.

2. typedef struct date

{

int dd;

int mm;

int yy;

}date;

(a)Stores the date.

(b)Each node structure stores the date,month and year.

3. typedef struct customer

{

int id;

char name[500000];

date bday;

char phoneno[11];

date entry;

int points;

char membership[500000];

int rate;

struct customer \*next;

}customer;

(a)Stores the customer details.

(c)Contains attributes of a customer and a next pointer pointing to the next node.

4. typedef struct bill{

int customerno;

int billno;

char itemname[500000];

int qty;

int t\_price;

date cur\_date;

struct bill \*next;

}bill\_det;

(a) Stores the details of the bill of a customer.

(c)Each node contains information of each invoice generated and a next pointer which points to the next node in the linked list.

# FUNCTIONS:ACTION PERFORMED

1. void setColor(int);

This function has been used to change the font color on the console.

2. void correctpass();

It displays the main menu to the admin when correct password is entered.

3. void inventory();

It displays the Inventory/list of all items to the admin.

4. void screen1(char);

(a)It takes a character input as argument which tells whether the user is a customer or admin.

(b)This function reads all the files used in the program and also shows the respective opening screens for customer and admin.

5. void customer\_entry();

It displays the main menu to the customer and asks whether he wants to check item location or generate the bill.

6. void checkLocation();

It shows the location of a particular item in the store to the customer.

7. void customerDetails();

It displays the details of the customers to the admin.

8. void generateBill();

It facilitates the user to choose the items to buy and then modify according to his needs and finally generate the total amount to be paid.

9. void update\_details();

This function updates all the values in the three .csv files from the recent updates in the linked lists.

10. void offerzone();

It displays the offerzone and all the discounts to the customer who is currently not a member.

11. void invoice(int,int);

(a)It takes two integer arguments as input, it takes the total bill amount and Bill number from the generateBill() function .

(b)This function generates the final invoice, it shows the bill summary the final amount to be paid after application of valid discounts.

# CONTROL FLOW:

* The welcome screen asks the user to enter whether he is the admin or a customer.
* If the user is **admin** he has to verify so by entering a password (ADMIN) to proceed further and there are options to show password or to try again (maximum 3 times) if the password entered is incorrect .

**If the user enters the wrong password three times he is denied access and he is locked out.**

* Upon **getting access** the admin can view :
* Details of all customers
* Details of inventory
* Statistics i.e.about the total sales,rating,number of members for each type of membership and stock details of inventory.
* If the user is **customer** he is given with options to
* To check location of a given product:Upon entering the product name the location of the product is displayed
* To generate bill : The customer supposed to enter his name ,birthdate ,phone number and the name and quantity of items that he wants to buy one by one.
* To make the program user friendly the user is shown his current bill and then is given a choice to modify the quantity of an item or delete an item in case he wishes to do so.
* Finally, the user can generate the bill.
* When the invoice is printed background checks are done to see if the customer is new or an existing one.
* If the customer is an existing one then its details are fetched from the **Customer\_details.csv** file to check if he is an existing member ,if today is the customer’s birthday ,if he has points greater than 500 which make him eligible for additional discounts.
* If the customer is new then he is shown with the various benefits of different types of membership and is given an option to take one.
* Finally, the invoice which is generated shows the purchase summary,the grand total ,the tax applied and the amount payable after applying the eligible discounts.
* If the points are redeemed then then the number of points left are also displayed.
* Also,the number of points that the user earned on this purchase are also displayed.
* At the end the user is asked to rate his experience by giving us the appropriate number of stars (input taken as \*).
* All these details are then updated in the required files .

# CONTRIBUTORS

1.Aditya Srivastava(1910110034)

2.Jayati Sharma(1910110181)

3.Samriddhi Panwar(1910110343)

4.Akansh Mittal(1910110039)

5.Ansh Gupta(1910110072)

The whole project was completed successfully by equal contributions from each member be it discussing the draft of the project to its implementation in code and debugging.

# **For collabOrating WE HAVE USED GITHUB**

A few tips:

1.All the .csv and .c files should be in the same folder.

2.Run all the three files by creating a project in codeblocks.

3.Please run the program on windows as the header file (windows.h) does not work on ubuntu.

4.Your antivirus settings may block the opening of .csv files suspecting some false malicious action so its better to exclude the file from the antivirus scan.

\*\*\*\*\*\*\*