



# Canteen Management and Billing System

## TEAM VISION - MEMBERS

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# Introduction

The **Canteen Management and Billing System** is a console-based application designed to streamline the management of food items and handle customer orders efficiently. This system is built using the C programming language and provides two main sections:

## Owner Section

→Add, delete, and view food items.

## Menu and Order Section

→View menu, place orders, generate bill.

# Function Prototypes

- 1** `addItem()`  
Adds new food items, checks for duplicates, stores in canteen.txt.
- 2** `viewItems()`  
Displays food items, reads data from canteen.txt.
- 3** `deleteItem()`  
Deletes items by ID, updates canteen.txt.
- 4** `ownerLogin()`  
Authenticates owner with password "admin".
- 5** `ownerSection()`  
Provides menu for adding, deleting, or viewing items.
- 6** `placeOrder()`  
Allows customers to place orders, calculates the total bill, and stores order details in orders.txt.
- 7** `orderSection()`  
Provides menu for viewing the menu or placing orders.
- 8** `main()`  
Main function: displays the main menu, calls the owner or order section.

# Structure Used

## Menu Structure

Defines food items with unique ID, name, and price.

## File Handling

Uses canteen.txt and orders.txt for storing data.

## Input/Output

Uses scanf() for numeric input, fgets() for string input, clears the input buffer after every scanf() call.

## Sorting

Sorts food items by ID before writing to canteen.txt.

## Error Handling

Checks for duplicate item IDs when adding new items, handles file opening errors gracefully.

# Libraries Used



stdio.h

Input/output functions like printf(), scanf(), fgets(), fscanf(), and fprintf().



stdlib.h

Memory allocation and program control functions such as exit().



string.h

String manipulation functions like strcmp(), strcspn().

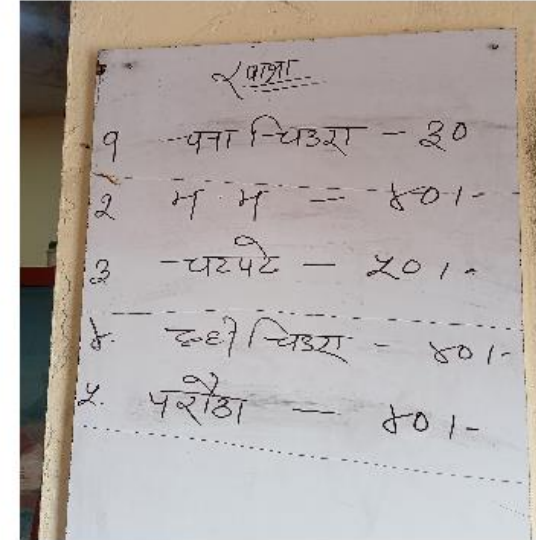
# Conclusion

The Canteen Management and Billing System is a practical application showcasing fundamental C programming concepts like file handling, structures, and input/output operations. It provides a user-friendly interface for managing food items and handling customer orders.





## Using whiteboard to write menu



## Using C program to write food menu

```
1. Owner Login
2. Menu and Order
3. Exit
Enter your choice(numbers only): 1
Enter Admin Password: admin

Owner Section
1. Add Item
2. Delete Item
3. View Items
4. Exit Owner Section
Enter your choice(numbers only):
```