User Manual for Mess Management System

Introduction The Mess Management System is a console-based application designed to efficiently manage the operations of a mess, including member management, expense tracking, and meal accounting. This manual provides step-by-step instructions for using the system.

Getting Started

System Requirements

- Operating System: Windows

- Compiler: GCC or any C++ compiler

- Terminal or Command Prompt

Running the System

1. Run the .exe file.(Mess_Management.exe)

2. Use the menu to navigate through the system.

Main Menu Options

1. Login

- **Purpose**: Authenticate existing users.

- **Steps**:

    1. Select the Login option.

    2. Enter your username and password.

    3. Upon successful login, you can access other features.

    4. Wait 3 second after successful login.

2. Register

- **Purpose**: Register a new user.

- **Steps**:

    1. Select the Register option.

    2. Provide a unique username and password.

    3. The system will save your credentials for future login.

    4. Wait 3 second after successful register.

3. Add Member

- **Purpose**: Add a new member to the mess.

- **Steps**:

    1. Select the Add Member option.

    2. Enter the member's ID, name, and contact information.

    3. The system initializes the member's meal count and investment as zero.

    4. Wait 3 second after successfully adding member.

4. View Members

- **Purpose**: Display a list of all mess members.

- **Steps**:

    1. Select the View Members option.

    2. The system will show details such as ID, name, contact, meal count, and investment.

    3. You can only view member for 10 seconds.

5. Remove Member

- **Purpose**: Delete a member from the system.

- **Steps**:

    1. Select the Remove Member option.

    2. Enter the ID of the member to be removed.

    3. Wait 3 second after successfully removing member.

6. Add Investment

- **Purpose**: Update a member's investment.

- **Steps**:

    1. Select the Add Investment option.

    2. Enter the member ID and the investment amount.

    3. The system updates the member's investment record.

    4. Wait 3 second after successfully adding investment.

7. Add Expense

- **Purpose**: Record a new expense for the mess.

- **Steps**:

1. Select the Add Expense option.

2. Enter the date, description, and amount.

3. The system saves the expense.

4. Wait 3 second after successfully adding expense.

8. View Expenses

- **Purpose**: Display all recorded expenses.

- **Steps**:

    1. Select the View Expenses option.

    2. The system shows details such as date, description, and amount.

    3. You can only view expenses for 10 seconds.

9. Add Meal

- **Purpose**: Record meals consumed by a member.

- **Steps**:

    1. Select the Add Meal option.

    2. Enter the member ID, date, and number of meals.

    3. The system updates the member's meal count.

    4. Wait 3 second after successfully adding meal.

10. View Meals

- **Purpose**: Display the meal records.

- **Steps**:

    1. Select the View Meals option.

    2. The system shows details such as member ID, date, and number of meals.

    3. You can only view meal for 10 seconds.

11. Calculate Bill

- **Purpose**: Calculate and display bills for all members.

- **Steps**:

    1. Select the Calculate Bill option.

    2. The system calculates the meal rate (total expenses/total meals).

    3. Displays each member's bill based on their meal count.

4. You can only view meal count for 10 seconds.

12. Manage Member Expense

- **Purpose**: Calculate net expenses for each member.

- **Steps**:

    1. Select the Manage Member Expense option.

    2. The system calculates the total bill, deducts the investment, and displays the net expense.

    3. You can only view member expenses for 10 seconds.

13. Exit

- **Purpose**: Exit the application.

- **Steps**:

    1. Select the Exit option.

    2. The system will terminate.

    3. Will clear the screen after 3 seconds.

    4. Until you press any key it will not terminate completely.

Error Handling

- **Invalid Input**: The system displays a message and prompts the user to re-enter a valid choice.

- **File Not Found**: Ensure the required data files (members.txt, expenses.txt, meals.txt, users.txt) exist in the same directory as the executable.

Data Files

1. **users.txt**: Stores user credentials.

2. **members.txt**: Stores member details.

3. **expenses.txt**: Stores expense records.

4. **meals.txt**: Stores meal records.

Disclaimer: If you find any problem in this system please contact the Creator ##Monjur Morshed##