TITLE : MOBILE RECHARGE AND BILL PAYMENT METHOD

ABSTRACT:

This project presents a simplified **Mobile Recharge and Bill Payment System**, developed as a digital model of real-world payment platforms. The program enables users to recharge prepaid mobiles, pay electricity and DTH bills, manage wallet balance, and view past transactions — all within a single interface. It aims to give a basic understanding of how fintech applications function behind the scenes.

The system demonstrates core concepts such as payment handling, cashback updates, and transaction recording in a clear and beginner-friendly manner. It also familiarises learners with structured and modular programming techniques in C.

By simulating digital payments through an in-app wallet, the project helps users visualise how funds are transferred and processed in online payment systems. With a focus on ease of use and reliable functioning, this project bridges classroom learning with practical financial technology used in everyday life.

KEYWORDS:

1)Mobile Recharge

2)Bill Payment

3)Digital Wallet

4)Cashback

5)Fintech

6)Transaction Record

INTRODUCTION:

Digital payment systems have become an essential part of modern transactions, offering fast, reliable, and convenient ways to handle money. Applications such as Google Pay, PhonePe, and Paytm have transformed the process of mobile recharges, bill payments, and fund transfers.

This project aims to build a basic prototype of a digital payment platform using the C programming language. It demonstrates key features including wallet balance usage, cashback application, and maintaining a record of transactions.

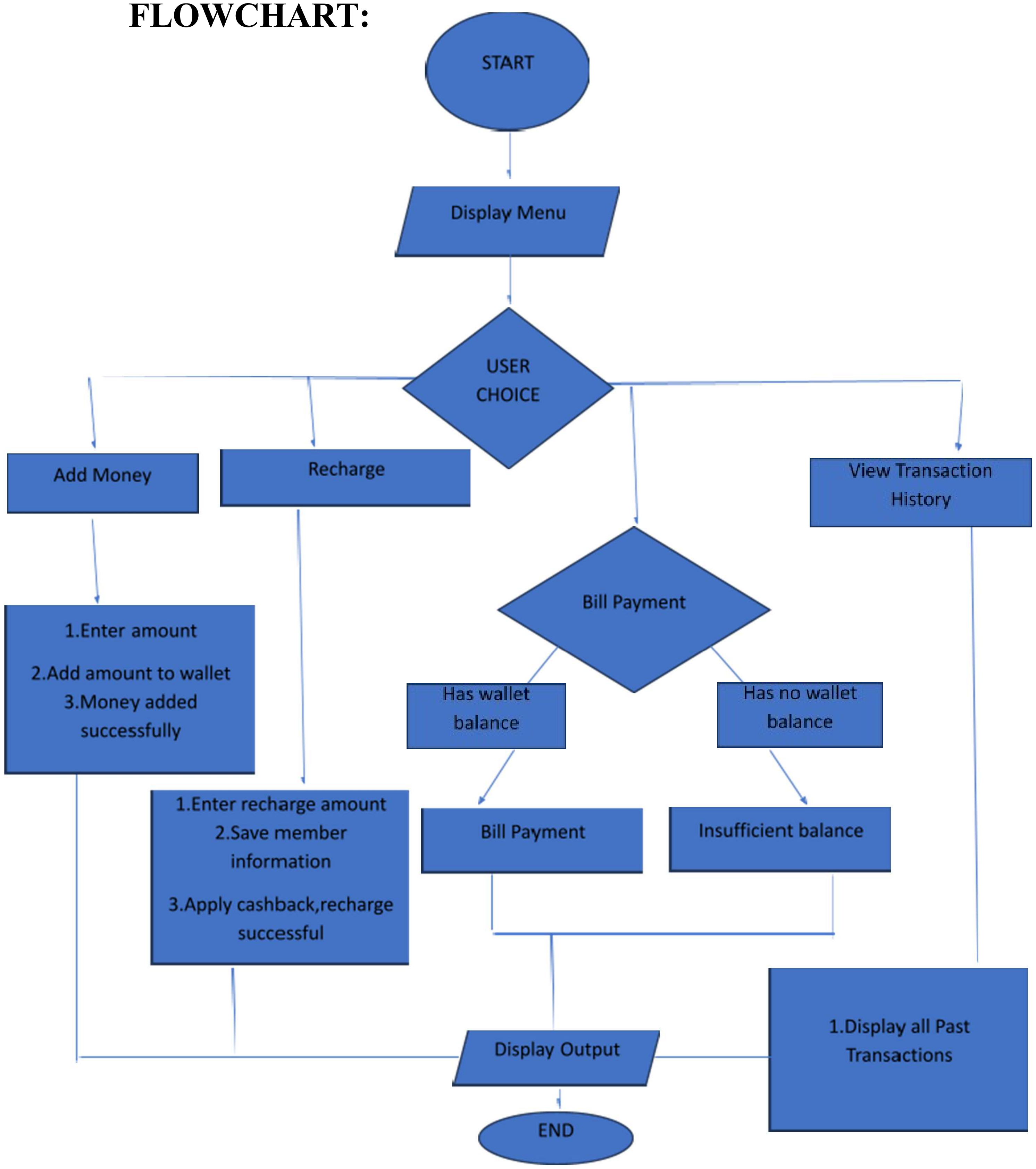
The system highlights the importance of secure payment logic, proper validation, and error control in financial applications. It also gives learners an introduction to core fintech concepts such as transaction management, service classification, and data organization through arrays and modular functions.

PROBLEM STATEMENT:

1. Users often struggle to manage recharges, bill payments, and wallet transactions across multiple separate platforms.

2. There is a need for an integrated system that can process different payments securely, apply cashback, and store transaction history—all in one place.

FLOWCHART:


START
Display Menu
USER CHOICE
Add Money
Recharge
View Transaction History
1.Enter amount
2.Add amount to wallet
3.Money added successfully
Bill Payment
Has wallet balance
Has no wallet balance
1.Enter recharge amount
2.Save member information
3.Apply cashback,recharge successful
Bill Payment
Insufficient balance
1.Display all Past Transactions
Display Output
END

ALGORITHM:

1. **START**
2. Collect user information and set an initial wallet balance.
3. Show the main service menu with options such as Mobile Recharge, Bill Payment, Add Wallet Funds, and View Transaction History.
4. Based on the selected option, verify if the transaction can be processed (check wallet balance where required).
5. If a payment is made, deduct the respective amount and compute cashback (2% for mobile recharge and 1% for bill payment).
6. Credit the calculated cashback to the wallet and store the transaction details.
7. Display a summary of the completed transaction to the user.
8. **END**

CODE:

```
#include <stdio.h>

#include <string.h>


struct Record {

   char category[20];

   float amt;

   float reward;

};
```

```
float wallet = 1000.0;
struct Record logs[50];
int indexLog = 0;

void addToWallet() {
    float add;
    printf("Enter amount to load into wallet: ₹");
    scanf("%f", &add);
    wallet += add;
    printf("₹%.2f successfully added to wallet.\n", add);
}

void mobileRecharge() {
    float amount, cb;
    printf("Enter recharge value: ₹");
    scanf("%f", &amount);

    if (amount > wallet) {
        printf("Not enough balance in wallet!\n");
        return;
    }
    cb = amount * 0.02;
    wallet = wallet - amount + cb;

    strcpy(logs[indexLog].category, "Recharge");
    logs[indexLog].amt = amount;
    logs[indexLog].reward = cb;
    indexLog++;

    printf("Recharge Completed! Cashback Earned: ₹%.2f\n", cb);
}

void payBill() {
    float bill, cb;
    printf("Enter bill amount to pay: ₹");
    scanf("%f", &bill);

    if (bill > wallet) {
        printf("Wallet balance is insufficient!\n");
        return;
    }
    cb = bill * 0.01;
    wallet = wallet - bill + cb;

    strcpy(logs[indexLog].category, "Bill Payment");
    logs[indexLog].amt = bill;
    logs[indexLog].reward = cb;
    indexLog++;

    printf("Bill Payment Successful! Cashback Received: ₹%.2f\n", cb);
}

void displayHistory() {
    printf("\n--- Transaction Summary ---\n");
    for (int i = 0; i < indexLog; i++) {
        printf("%d) %s - ₹%.2f | Cashback: ₹%.2f\n",
               i + 1, logs[i].category, logs[i].amt, logs[i].reward);
    }
    printf("Available Wallet Balance: ₹%.2f\n", wallet);
}
```

```
int main() {
    int choice;

    printf("**** DIGITAL PAYMENT PLATFORM ****\n");

    do {
        printf("\n1. Load Money\n2. Mobile Recharge\n3. Bill Payment\n4. View
Transaction History\n5. Exit\n");
        printf("Select an option: ");
        scanf("%d", &choice);

        switch (choice) {
            case 1: addToWallet(); break;
            case 2: mobileRecharge(); break;
            case 3: payBill(); break;
            case 4: displayHistory(); break;
            case 5: printf("Thank you for using our Digital Payment System!\n");
break;
            default: printf("Invalid selection! Please try again.\n");
        }
    } while (choice != 5);

    return 0;
}
```

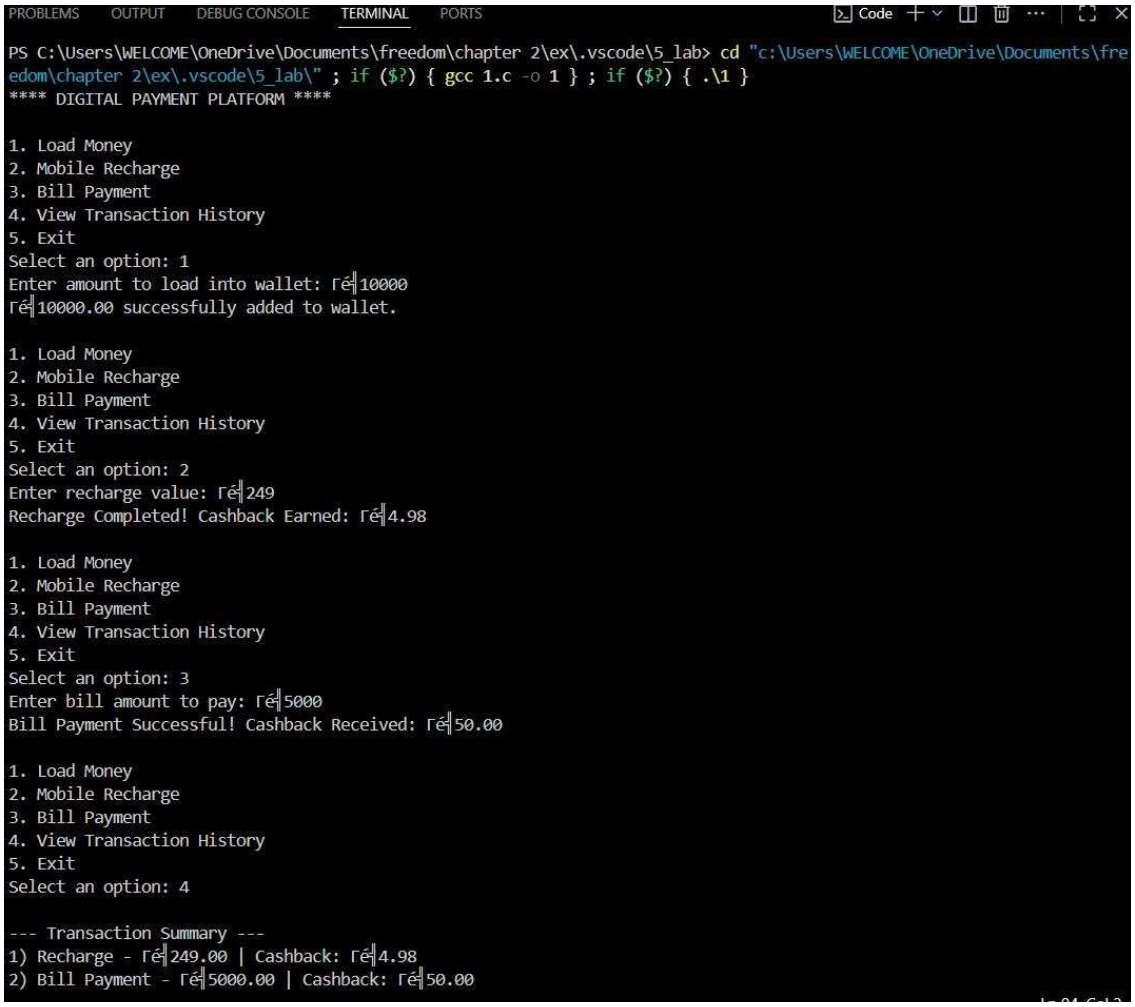
INPUT/OUTPUT -:

```
----------- Main Menu -----------
1. Add Money
2. Recharge
3. Bill Payment
4. View Transaction History
5. Exit
-----------------------------------
Enter your choice: 1
Enter amount to add: ₹10,000
₹10,000.00 added to wallet.

----------- Main Menu -----------
1. Add Money
2. Recharge
3. Bill Payment
4. View Transaction History
5. Exit
-----------------------------------
Enter your choice: 2
Enter recharge amount: ₹249
Recharge Completed! Cashback Earned: ₹9.00
```

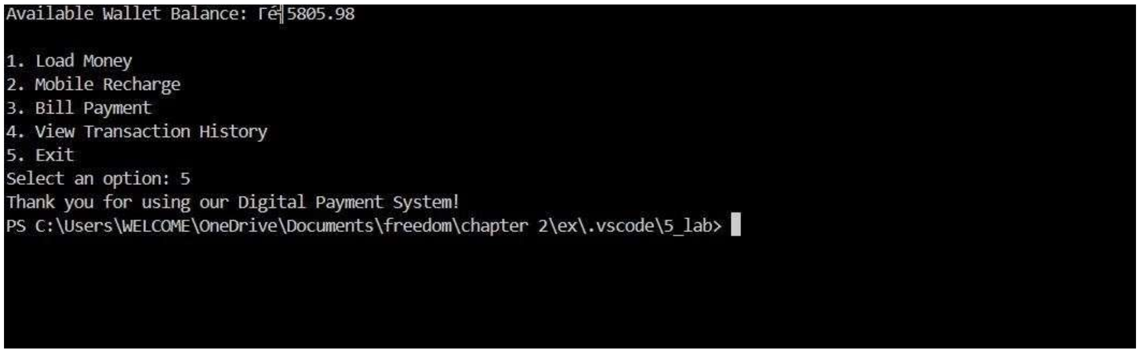
```
----------- Main Menu -----------
1. Add Money
2. Recharge
3. Bill Payment
4. View Transaction History
5. Exit
-----------------------------------
Enter your choice: 3
Enter bill amount to pay: ₹5000
Bill Payment Successful! Cashback Received: ₹50.00

----------- Main Menu -----------
1. Add Money
2. Recharge
3. Bill Payment
4. View Transaction History
5. Exit
-----------------------------------
Enter your choice: 4

--- Transaction Summary ---
1) Recharge - ₹249.00 | Cashback: ₹4.98
2) Bill Payment - ₹5000.00 | Cashback: ₹50.00
Available Wallet Balance: ₹5805.98
```

```
----------- Main Menu -----------
1. Load Money
2. Mobile Recharge
3. Bill Payment
4. View Transaction History
5. Exit
-----------------------------------
Enter your choice: 5
Thank you for using our Digital Payment System!
```

SAMPLE OUTPUT FIGURE:-



```
PS C:\Users\WELCOME\OneDrive\Documents\freedom\chapter 2\ex\.vscode\5_lab> cd "c:\Users\WELCOME\OneDrive\Documents\fre
edom\chapter 2\ex\.vscode\5_lab\" ; if ($?) { gcc 1.c -o 1 } ; if ($?) { .\1 }
**** DIGITAL PAYMENT PLATFORM ****

1. Load Money
2. Mobile Recharge
3. Bill Payment
4. View Transaction History
5. Exit
Select an option: 1
Enter amount to load into wallet: Γé╣10000
Γé╣10000.00 successfully added to wallet.

1. Load Money
2. Mobile Recharge
3. Bill Payment
4. View Transaction History
5. Exit
Select an option: 2
Enter recharge value: Γé╣249
Recharge Completed! Cashback Earned: Γé╣4.98

1. Load Money
2. Mobile Recharge
3. Bill Payment
4. View Transaction History
5. Exit
Select an option: 3
Enter bill amount to pay: Γé╣5000
Bill Payment Successful! Cashback Received: Γé╣50.00

1. Load Money
2. Mobile Recharge
3. Bill Payment
4. View Transaction History
5. Exit
Select an option: 4

--- Transaction Summary ---
1) Recharge - Γé╣249.00 | Cashback: Γé╣4.98
2) Bill Payment - Γé╣5000.00 | Cashback: Γé╣50.00
```



```
Available Wallet Balance: Γé╣5805.98

1. Load Money
2. Mobile Recharge
3. Bill Payment
4. View Transaction History
5. Exit
Select an option: 5
Thank you for using our Digital Payment System!
PS C:\Users\WELCOME\OneDrive\Documents\freedom\chapter 2\ex\.vscode\5_lab>
```

TABLE-:

Transaction Type	**Input Amount**	**Cashback Earned**	**Wallet Updated (After transaction)**
Recharge	Rs. 249	Rs. 4.98	Wallet reduced by ₹244.02 (after cashback)
Bill Payment	Rs. 5000	Rs.50.00	Wallet reduced by ₹4950.00 (after cashback)

CONCLUSION:

This project provides a simplified model of a mobile recharge and bill payment system, similar to modern digital payment platforms. It demonstrates how wallet balance management, cashback calculation, and transaction logging can be implemented using C programming concepts. Through this project, the practical use of conditional statements, functions, and structures has been effectively showcased.