C Programming Project Report

ATM Simulation Program

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Abstract

This project is a simple ATM simulation program written in C. It allows users to check their balance, deposit money, and withdraw money using a terminal-based interface. This project was developed to demonstrate the use of basic programming concepts in C, including conditionals, loops, and functions.

Objective

The objective of this project is to simulate a basic ATM interface using C programming. The goal is to give the user a simple and clear way to interact with banking operations such as deposits and withdrawals.

Tools Used

- Programming Language: C
- Compiler: GCC (or any standard C compiler)
- Platform: Terminal / Command Line Interface

Source Code

```
#include <stdio.h>

float balance = 1000.0;

void checkBalance() {
    printf("Your current balance is: Rs. %.2f\n", balance);
}

void depositMoney() {
    float amount;
    printf("Enter amount to deposit: Rs. ");
    scanf("%f", &amount);
    if (amount > 0) {
        balance += amount;
        printf("Amount deposited successfully.\n");
    } else {
        printf("Invalid deposit amount.\n");
    }
}

void withdrawMoney() {
    float amount;
```

```
    printf("Enter amount to withdraw: Rs. ");
    scanf("%f", &amount);
    if (amount > 0 && amount <= balance) {
        balance -= amount;
        printf("Amount withdrawn successfully.\n");
    } else {
        printf("Invalid or insufficient balance.\n");
    }
}

int main() {
    int choice;
    do {
        printf("\n===== ATM Menu =====\n");
        printf("1.    Check    Balance\n");
        printf("2.    Deposit    Money\n");
        printf("3.   Withdraw   Money\n");
        printf("4. Exit\n"); printf("Choose
        an    option:    ");    scanf("%d",
        &choice);

        switch (choice) {
            case 1:
                checkBalance();
                break;
            case 2:
                depositMoney();
                break;
            case 3:
                withdrawMoney();
                break;
            case 4:
                printf("Thank you for using the ATM!\n");
                break;
            default:
                printf("Invalid choice. Try again.\n");
        }
    } while (choice != 4);

    return 0;
}
```

Sample Output

```
===== ATM Menu =====
1. Check Balance
2. Deposit Money
3. Withdraw Money
4. Exit
```

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```
Choose an option: 1
Your current balance is: Rs. 1000.00
Choose an option: 2
Enter amount to deposit: Rs. 500
Amount deposited successfully.
Choose an option: 3
Enter amount to withdraw: Rs. 300
Amount withdrawn successfully.
```

Conclusion

This project helped reinforce core C programming skills such as using functions, loops, and conditional logic. Building an ATM simulator gave practical insight into how real-life applications are structured and how users can interact with systems through code.