Aim:

write a C program that simulates a basic banking system? The program should display a menu for users to check their balance, deposit money, withdraw funds, or exit the system. Use the goto statement to facilitate user interactions, and ensure that deposit and withdrawal operations are valid and the process should be carried until the user selects exit option.

Source Code:

banking.c

```c
#include <stdio.h>

int main() {
    double balance;
    int choice;
    double amount;

    printf("Enter the amount:");
    scanf("%lf", &balance);
  start:
    printf("Simple Banking System\n");
    printf("Menu:\n");
    printf("1.Check Balance\n");
    printf("2.Deposit Money\n");
    printf("3.Withdraw Money\n");
    printf("4.Exit\n");
    printf("Enter your choice:");
    scanf( "%d", &choice );

    switch ( choice ) {
        case 1:
            printf("balance:%.2f\n",  balance);
         goto start;

        case 2:
            printf("amount:");
            scanf("%lf", &amount  );
            if ( amount > 0 ) {
                balance = balance + amount;
                printf("new balance:%.2f\n", balance );
            } else {
                printf("Invalid amount\n");
            }
            goto start;
        case 3:
            printf("amount:");
            scanf("%lf", &amount );
            if (amount <= balance ) {
                balance = balance - amount;

                printf("Withdrawal successful! Your new balance is:%.2f\n", balance
);
            } else {
```

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                printf("Invalid amount or insufficient balance\n");
            }
            goto start;
        case 4:
            printf("Exiting\n");
            break;
        default:
            printf("Invalid choice\n");
            goto start;
    }

    return 0;
}
```

Execution Results - All test cases have succeeded!

Test Case - 1
User Output
Enter the amount: 10000
Simple Banking System 1
Menu: 1
1.Check Balance 1
2.Deposit Money 1
3.Withdraw Money 1
4.Exit 1
Enter your choice: 1
balance:10000.00 2
Simple Banking System 2
Menu: 2
1.Check Balance 2
2.Deposit Money 2
3.Withdraw Money 2
4.Exit 2
Enter your choice: 2
amount: 10000
new balance:20000.00 4
Simple Banking System 4
Menu: 4
1.Check Balance 4
2.Deposit Money 4
3.Withdraw Money 4
4.Exit 4
Enter your choice: 4
Exiting

Test Case - 2
User Output
Enter the amount: 40000
Simple Banking System 5
Menu: 5

1.Check Balance 5
2.Deposit Money 5
3.Withdraw Money 5
4.Exit 5
Enter your choice: 5
Invalid choice 1
Simple Banking System 1
Menu: 1
1.Check Balance 1
2.Deposit Money 1
3.Withdraw Money 1
4.Exit 1
Enter your choice: 1
balance:40000.00 4
Simple Banking System 4
Menu: 4
1.Check Balance 4
2.Deposit Money 4
3.Withdraw Money 4
4.Exit 4
Enter your choice: 4
Exiting