BANKING SYSTEM-CONTROL STRUCTURE

TASK 2: NESTED CONDITIONAL STATEMENTS:

Taking User Input:

- The program begins by prompting the user to enter their current balance, which is stored in the balance variable.
- It then displays an ATM menu with three options:
    - Check Balance
    - Withdraw
    - Deposit
- The user selects an option by entering a number (1, 2, or 3).

Handling the User's Choice Using Conditional Statements:

- **Checking Balance (choice == 1):**
  If the user selects option 1, the program simply displays the current balance.

- **Withdrawal (choice == 2):**
    - **Insufficient Balance Check:**
      If the withdrawal amount is greater than the current balance, the program prints "Insufficient Balance" and does not proceed with the transaction.

    - **Valid Amount Check:**
      If the withdrawal amount is in multiples of 100 or 500 (withdraw % 100 == 0 || withdraw % 500 == 0), the amount is deducted from the balance, and a success message is displayed.

    - Otherwise, the program prints "Invalid amount", indicating that the entered amount is not in valid denominations.

- **Deposit (choice == 3):**
  The program prompts the user to enter a deposit amount.
    - It then checks if the deposit amount is greater than 0:
    - If valid, the amount is added to the balance, and a success message is displayed.
    - If invalid (e.g., a negative or zero deposit), the program prints "Invalid Deposit amount".

JAVA PROGRAM:

```
import java.util.*;
public class Task2 {
   public static void main(String[] args){
      Scanner sc=new Scanner(System.in);
      System.out.println("Enter current balance:");
      double balance=sc.nextDouble();
      System.out.println("\n ATM MENU:");
      System.out.println("1.Check Balance");
      System.out.println("2.Withdraw");
      System.out.println("3.Deposit");
      System.out.print("Enter your choice:");
      int choice=sc.nextInt();

      if(choice==1){
         System.out.println("Current Balance: "+balance);

      }
      else if(choice==2){
         System.out.print("Enter withdraw amount-Multiples of 100 or 500");
         double withdraw=sc.nextDouble();
         if(withdraw>balance){
            System.out.println("Insufficient Balance");
         }
         else if(withdraw%100==0 || withdraw%500==0){
            balance-=withdraw;
            System.out.println("Withdraw successful \n New balance:"+balance);
         }
         else{
            System.out.println("Invalid amount");
         }

      }
      else if(choice==3){
         System.out.print("Enter deposit amount: ");
         double deposit=sc.nextDouble();

         if(deposit>0){
            balance+=deposit;
            System.out.println("Deposit successful \n New Balance: "+balance);
         }
         else{
            System.out.println("Invalid Deposit amount");
         }
      }
   }

}
```

OUTPUT:

BALANCE CHECKING:

```
Enter current balance:
5000

 ATM MENU:
1.Check Balance
2.Withdraw
3.Deposit
Enter your choice:1
Current Balance: 5000.0
BUILD SUCCESSFUL (total time: 9 seconds)
```

SUCCESSFUL WITHDRAWAL:

```
Enter current balance:
5000

 ATM MENU:
1.Check Balance
2.Withdraw
3.Deposit
Enter your choice:2
Enter withdraw amount-Multiples of 100 or 500: 1000
Withdraw successful
 New balance:4000.0
BUILD SUCCESSFUL (total time: 24 seconds)
```

WITHDRAWAL FAILURE:

```
Enter current balance:
5000

 ATM MENU:
1.Check Balance
2.Withdraw
3.Deposit
Enter your choice:2
Enter withdraw amount-Multiples of 100 or 500: 750
Invalid amount
BUILD SUCCESSFUL (total time: 10 seconds)
```

SUCCESSFUL DEPOSIT:

```
Enter current balance:
5000

 ATM MENU:
1.Check Balance
2.Withdraw
3.Deposit
Enter your choice:3
Enter deposit amount: 500
Deposit successful
 New Balance: 5500.0
BUILD SUCCESSFUL (total time: 18 seconds)
```

INVALID DEPOSIT:

```
Enter current balance:
5000

 ATM MENU:
1.Check Balance
2.Withdraw
3.Deposit
Enter your choice:3
Enter deposit amount: -500
Invalid Deposit amount
BUILD SUCCESSFUL (total time: 1 minute 13 seconds)
```