

Name Zahid Mursleen  
Roll No 24F-0593

## TASK 1

```
#include <iostream>
using namespace std;
int main()
{
    int amount;
    char transaction = 'y'; // Ask if user want to make another transaction
    while (transaction == 'y' || transaction == 'Y')
    {
        cout << "Enter amount to withdraw (1000 - 10000):";
        cin >> amount;
        if (amount >= 1000 && amount <= 10000) // For valid amount
        {
            cout << "You successfully withdraw " << amount << " money" << endl;
        }
        else
        { // For invalid amount
            cout << "You entered an invalid amount of money (Range : 1000 to 10000)" << endl;
            continue; // To skip the remaining statements
        }
        // Ask if user want to make another transaction
        cout << "Would you like to make another transaction (N/Y): ";
        cin >> transaction;
    }
    cout << "Thankyou for visiting the ATM, Goodbye" << endl;
    return 0;
}
```

```
Enter amount to withdraw (1000 - 10000):4000
You successfully withdraw 4000 money
Would you like to make another transaction (N/Y): n
Thankyou for visiting the ATM, Goodbye
```

## TASK 2

```
// Input a number form user
// and print table of that number

#include <iostream>
using namespace std;
int main()
{
    int num;
    cout << "Enter a number to print table:";
    cin >> num;
    int i = 1; // Counter variable
    while (i <= 10) // print table up to 10
    {
        // Printing table
    }
```

```
cout << num << " X " << i << " = " << num * i << endl;
i++;
}
return 0;
}
```

```
Enter a number to print table:5
5 X 1 = 5
5 X 2 = 10
5 X 3 = 15
5 X 4 = 20
5 X 5 = 25
5 X 6 = 30
5 X 7 = 35
5 X 8 = 40
5 X 9 = 45
5 X 10 = 50
```

## Task 3

```
// Taking marks of exam from user until
// user enter a -ve value
#include <iostream>
using namespace std;
int main()
{
float marks, sum = 0, avg;
int i = 0;
cout << "Enter your exam marks: ";
cin >> marks;
while (marks >= 0) // check marks should be +ve
{
//sum of marks
sum = sum + marks;
cout << "Enter your exam marks: ";
cin >> marks;
i++; // count number of iterations
}
//Calculate avg
avg = sum / i;
cout << "You total avg marks = " << avg << endl;
return 0;
}
```

```
Enter your exam marks: 12
Enter your exam marks: 43
Enter your exam marks: 54
Enter your exam marks: 23
Enter your exam marks: 43
Enter your exam marks: 23
Enter your exam marks: -2
You total avg marks = 33
```

## TASK 4

```
#include <iostream>
using namespace std;
int main() {
    int number, originalNumber, remainder, reversedNumber = 0;
    bool isPalindrome = true;
    cout << "Enter a number: ";
    cin >> number;
    originalNumber = number; // Store the original number
    // Reverse the number using a loop
    while (number != 0) {
        remainder = number % 10; // Get the last digit
        reversedNumber = reversedNumber * 10 + remainder; // Append it to the reversed number
        number /= 10; // Remove the last digit from the original number
    }

    // Check if the original number matches the reversed number
    if (originalNumber != reversedNumber) {
        isPalindrome = false;
    }
    if (isPalindrome) {
        cout << originalNumber << " is a palindrome." << endl;
    } else {
        cout << originalNumber << " is not a palindrome." << endl;
    }
    return 0;
}
```

```
Enter a number: 123
123 is not a palindrome.
```

```
Enter a number: 242
242 is a palindrome.
```

## TASK 5

```
// Calculate sum of numbers( min. 5)
// until user enter a -ve number
#include <iostream>
using namespace std;
int main() {
    int i= 1;
    int count = 0;
    int number;
    int sum = 0;
    cout << "Enter at least " << 5 << " numbers to calculate their sum.\n";
    cout << "If you enter a negative number, the program will terminate.\n";
    while (count < 5) {
        cout << "Enter number " << i << ": ";
```

```

cin >> number;
if (number < 0) {
    // Break the loop if a negative number is entered
    cout << "Negative number entered. Terminating the loop.\n";
    break;
}
// Add the number to the sum
sum += number;
count++;
i++;
}
// Output the sum
cout << "Sum of the entered numbers: " << sum << endl;
return 0;
}

```

```

Enter at least 5 numbers to calculate their sum.
If you enter a negative number, the program will terminate.
Enter number 1: 21
Enter number 2: 43
Enter number 3: 54
Enter number 4: -5
Negative number entered. Terminating the loop.
Sum of the entered numbers: 118

```

## TASK 6

```

#include <iostream>
using namespace std;
int main() {
    int i = 1; // Counter for numbers entered
    int number;
    int sum = 0;
    cout << "Enter at least " << 5 << " numbers to calculate their sum.\n";
    while (i <= 5) {
        cout << "Enter number " << i << ": ";
        cin >> number;
        if (number < 0) { // Skip adding negative numbers
            continue;
        }
        // Add the number to the sum
        sum += number;
        i++;
    }
    cout << "Sum of the entered numbers (ignoring negatives): " << sum << endl;
    return 0;
}

```

```
Enter at least 5 numbers to calculate their sum.  
Enter number 1: 12  
Enter number 2: 43  
Enter number 3: 5  
Enter number 4: -4  
Enter number 4: 35  
Enter number 5: -54  
Enter number 5: 54  
Sum of the entered numbers (ignoring negatives): 149
```