# Lab – 4 While loop

1. Write a program to compute and display the sum of all integers within 1 and 10 inclusive

Output:

Sum of all integers within 1 and 10 = 55

Answer:

1. Modify the program to display the output below:

Output:

sum = 0, i = 1, sum + i = 1

sum = 1, i = 2, sum + i = 3

sum = 3, i = 3, sum + i = 6

sum = 6, i = 4, sum + i = 10

sum = 10, i = 5, sum + i = 15

sum = 15, i = 6, sum + i = 21

sum = 21, i = 7, sum + i = 28

sum = 28, i = 8, sum + i = 36

sum = 36, i = 9, sum + i = 45

sum = 45, i = 10, sum + i = 55

Sum of all integers within 1 and 10 = 55

Answer:

1. Write a program to compute and display the sum of the odd integers within 10 and 100 inclusive

Output:

Sum of the odd integers within 10 and 100 = 2475

Answer:

1. Write a program to compute and display the sum of all multiples of 5 within 100 and 200 inclusive

Output:

Sum of all multiples of 5 within 100 and 200 = 3150

Answer:

1. Write a loop that repeats 5 times, asking the user to enter a number from the console. Display the sum of all numbers and their average entered after the loop

Output:

Input a number: 9

User’s input

Input a number: 5

Input a number: 8

Input a number: 1

Input a number: 7

Sum of all number = 30

Average = 6.0

Answer:

1. Write a loop to find the smallest integer n such that the sum of all integers from 1 to n is greater than 100. Display the value n

Output:

Sum of 1 to 14 = 105

Answer:

1. Write a program that uses a loop to keep asking the user to enter an integer until the user enter a “0”. The program displays the sum and average of all input numbers when the loop stops.

Output:

This program adds all the number you entered. It stops when you enter 0

Enter a number please: 6

User’s input

Enter a number please: 8

Enter a number please: 4

Enter a number please: 6

Enter a number please: 12

Enter a number please: 0

You have entered 5 numbers

Sum = 36.0

average = 7.2

Answer: