

Structured Programming

CIS 122 & 122 L

While and Do While Loop Practice Problems

Problem 1: Iterated Average

Take integer inputs from user until he/she presses '-5' and print the average of those inputs.

Problem 2: Positive checker

Make a program to take user input into a variable called xValue and repeatedly print the value of the variable xValue, decreasing it by 0.5 each time, as long as xValue remains positive.

Problem 3: Prime Average

Rudra knows that a Prime Number is a number that is divisible only by 1 (one) and by itself. For example, the number 7 is Prime, because it can be divided only by 1 and by 7. So, he asked you to write a program that will prints the all prime numbers between a given range and also you need to calculate the average of the prime numbers. (Use while loop)

- ✚ You need to print the prime numbers between two given values
- ✚ You need to print the average of those prime numbers

Problem 4: Weighted Average

Read two integers start and end, now you need to calculate the weighted average of the numbers between range. Print the weighted average for numbers between given range, considering that the first number has weight 1.5, the second number has weight 3 and the third number has weight 4.5 and next numbers are following the increasing orders.

- ✚ Take two integer inputs for start and end position
- ✚ Now add weight to each number between the range of start and end number. Weight should be 1.5 for the first number, 3 for second number, 4.5 for third number and rest of the numbers should follow the weight sequence.
- ✚ Now calculate the weighted average of the numbers between start and end number.

Use Do While loop to solve this problem. (Means if user enters a start number that is greater than the end number you need to print the average of the start number)

Instructions:

- ✚ Make a word or pdf document and named it with your DIU student id
- ✚ Take screenshot of the C program code and output for each task.
- ✚ Attach the screenshots to your document and submit