

ASSIGNMENT 03 – PRF192

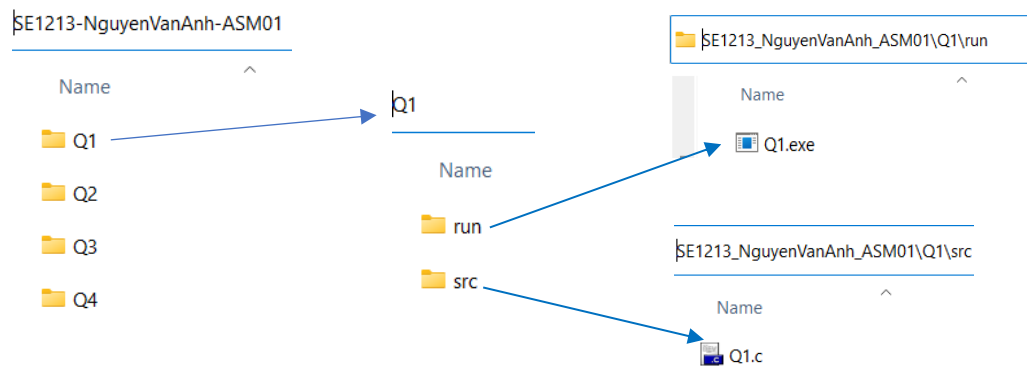
Duration: 90'

Software Requirements

- Dev C++ 5.11, NotePad, Command Prompt, WinRAR / WinZip with Windows Explorer (File Explorer) on Windows 7 and above.

Instructions

- Step 1: Students download the given materials from LMS.
- Step 2: Students read questions and prepare answers in the given template.
- Step 3: Prepare to submit the answer:
 - For each question (e.g., question **Q1, Q2, Q3,...**), please create two sub-folders: **run** and **src**.
 - Copy the *.exe file into the **run** folder, and the *.c file into the **src** folder.
- Step 4: Submit a solution for each question:
 - Create a folder formatted: RollNumber_FullName_ASMxx (xx: 01, 02,..) that contains folders (created Step 03) as the below figure:



- Use WinRAR / WinZip tool to compress the **RollNumber_FullName_ASMxx** folder and submit it to LMS

❖ Importance:

- Do not change the names of the folders, files, and struct (format) of .c files specified in the assignment. If you change it, the grading software can not find the execute file (.exe) or the output results to score, thus the mark will be 0
- Do not edit given statements in the **main** function. If you change, the grading software can not score and the mark will be 0.

Question 1: (2 marks)

The given file Q1.c already contains statements to input data for an integer variable named **x**. You should write statements to print out the average of the **x** first primes (primes start from 2).

Notes:

- Do not edit given statements in the **main** function

- You can create new functions if you see it is necessary.
- The output result is formatted in two decimal places

Sample input and output:

Input: x = 5

After processing: $(2+3+5+7+11) / 5 = 5.60$

Output for marking:

OUTPUT:

5.60

Question 2: (3 marks)

The given file Q2.c already contains statements to input the integer variables **n** and **x** (**n > 1, x > 0**). You should write statements to print out the sum of **n** the numbers start from 1 that are divisible by **x**.

Notes:

- Do not edit given statements in the **main** function
- You can create new functions if you see it is necessary.

Sample input and output:

Input: n = 5 , x = 3

After processing: $3+6+9+12+15 = 45$

Output for marking:

OUTPUT:

45

Question 3: (2 marks)

The given file Q3.c already contains statements to input the char variables named **c1** and **c2**. You should write statements to count characters that are consonant from **c1** to **c2** (**c1** and **c2** are not case-sensitive)

Notes:

- Do not edit given statements in the **main** function
- You can create new functions if you see it is necessary.

Sample input and output:

-Input: c1 = a , c2 = F

After processing: count = 4

consonants: b,c,d,f

Output for marking:

OUTPUT:

4

-Input: c1 = G , c2 = a

After processing: count = 5

consonants : b, c,d,f,g

Output for marking:

OUTPUT:

5

-Input: c1 = a , c2 = d

After processing: count = 3

consonants : b, c,d

Output for marking:

OUTPUT:

3

-Input: c1 = F , c2 = D

After processing: count = 2

consonants : d, f

Output for marking:

OUTPUT:

2

Question 4: (3 marks)

The given file Q4.c already contains statements to input the integer variables named **n** and **m**. You should write statements to print out the greatest prime from **n** to **m**.($n \geq 2$ and $m \geq 2$)

Notes:

- Do not edit given statements in the **main** function
- You can create new functions if you see it is necessary.

Sample input and output:

-Input: n = 4, m = 10

After processing: 7

Output for marking:

OUTPUT:

7

-Input: n = 15, m = 2

After processing: 13

Output for marking:

OUTPUT:

13