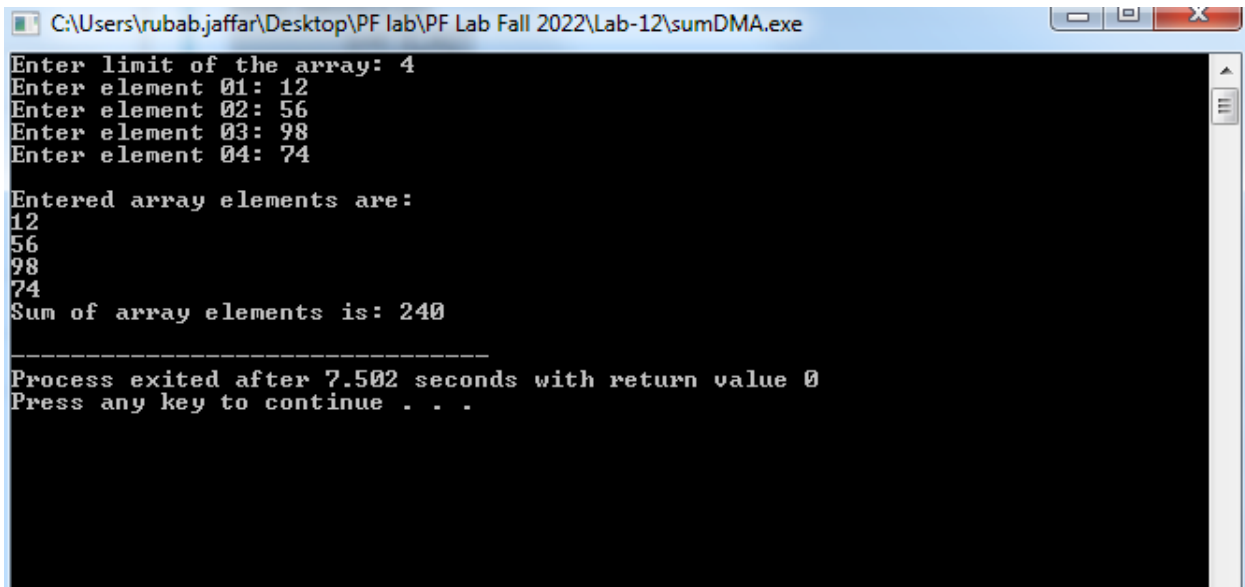


Dynamic Memory Allocation

Task 1:

C program to read a one dimensional array, print sum of all elements along with inputted array elements using Dynamic Memory Allocation.



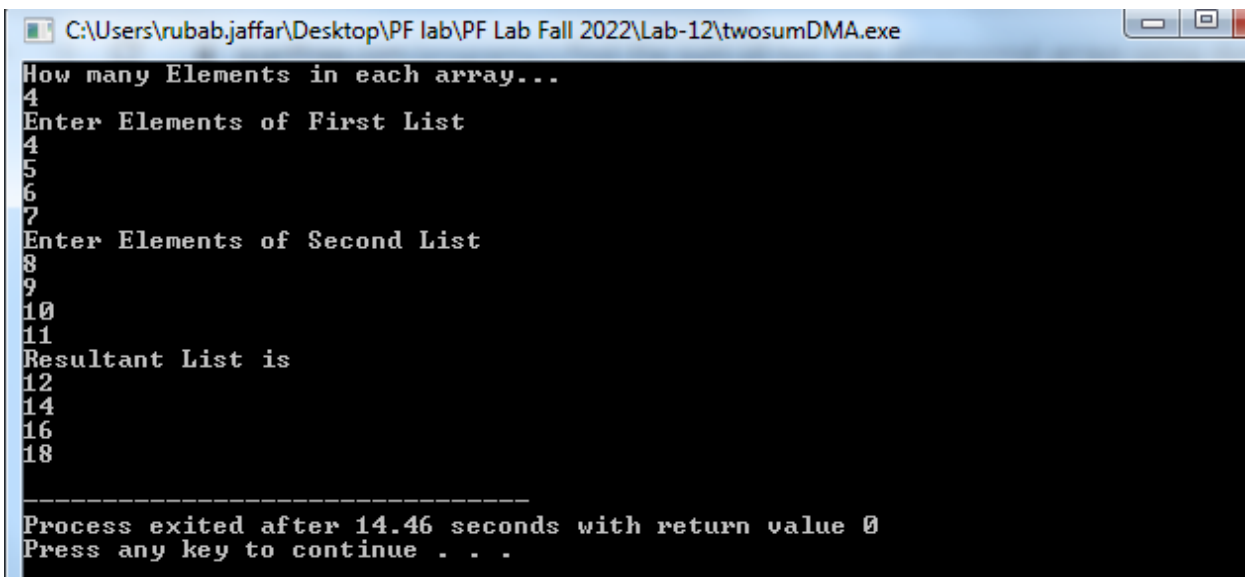
```
C:\Users\rubab.jaffar\Desktop\PF lab\PF Lab Fall 2022\Lab-12\sumDMA.exe
Enter limit of the array: 4
Enter element 01: 12
Enter element 02: 56
Enter element 03: 98
Enter element 04: 74

Entered array elements are:
12
56
98
74
Sum of array elements is: 240

-----
Process exited after 7.502 seconds with return value 0
Press any key to continue . . .
```

Task 2:

Write a C program that's reads two 1-D array from the user. Program must ask the user about number of elements in each array and then dynamically allocates memory for these two arrays. Program should find the sum of two one-dimensional arrays using Dynamic Memory Allocation.

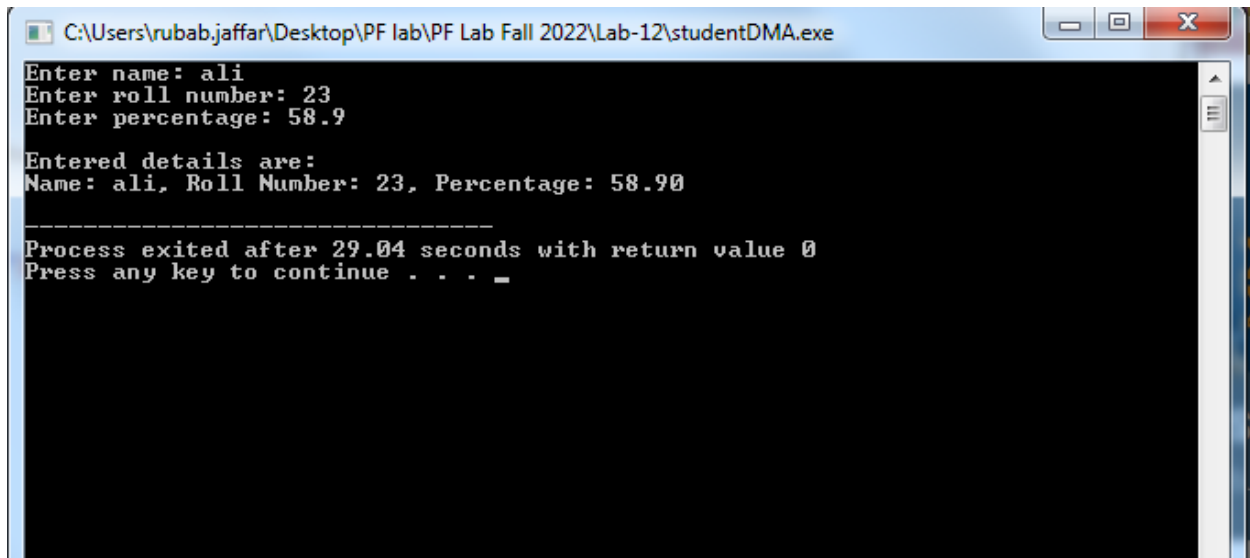


```
C:\Users\rubab.jaffar\Desktop\PF lab\PF Lab Fall 2022\Lab-12\twosumDMA.exe
How many Elements in each array...
4
Enter Elements of First List
4
5
6
7
Enter Elements of Second List
8
9
10
11
Resultant List is
12
14
16
18

-----
Process exited after 14.46 seconds with return value 0
Press any key to continue . . .
```

Task 3:

Write a C program to read and print the student details using structure . Memory to store and print structure will be allocated at run time. Student details includes name, roll number and percentage.



```
C:\Users\rubab.jaffar\Desktop\PF lab\PF Lab Fall 2022\Lab-12\studentDMA.exe
Enter name: ali
Enter roll number: 23
Enter percentage: 58.9

Entered details are:
Name: ali, Roll Number: 23, Percentage: 58.90

-----
Process exited after 29.04 seconds with return value 0
Press any key to continue . . . _
```

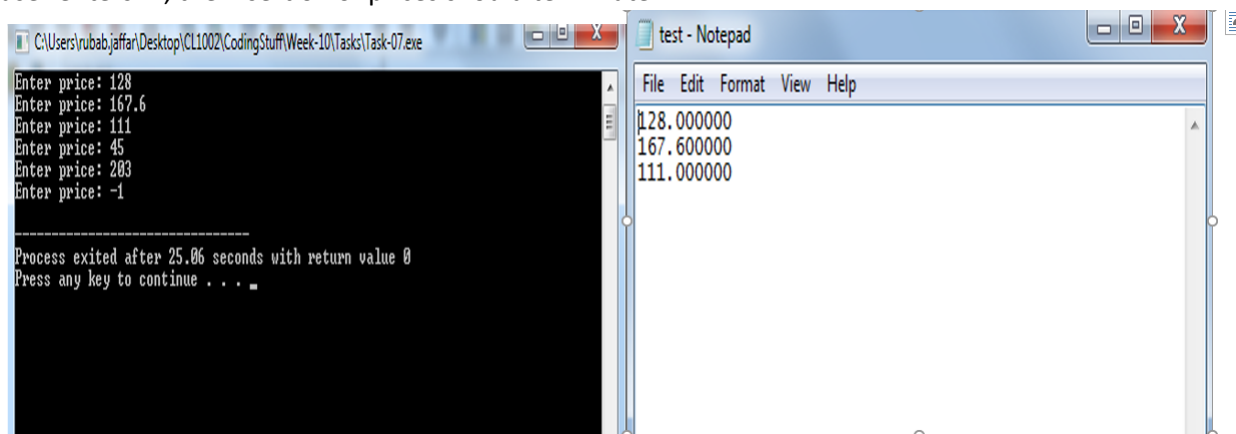
Task 4:

Modify the above task by taking the total number of students from the user and then read and print all student details.

Filing Tasks

Task 5:

You are required to write a program for your cafeteria owner which can reads the products' prices continuously and stores in a text file only those that cost more than PKR100 and less than PKR200. If the user enters -1, the insertion of prices should terminate.



```
C:\Users\rubab.jaffar\Desktop\CL1002\CodingStuff\Week-10\Tasks\Task-07.exe
Enter price: 128
Enter price: 167.6
Enter price: 111
Enter price: 45
Enter price: 203
Enter price: -1

-----
Process exited after 25.06 seconds with return value 0
Press any key to continue . . . _
```

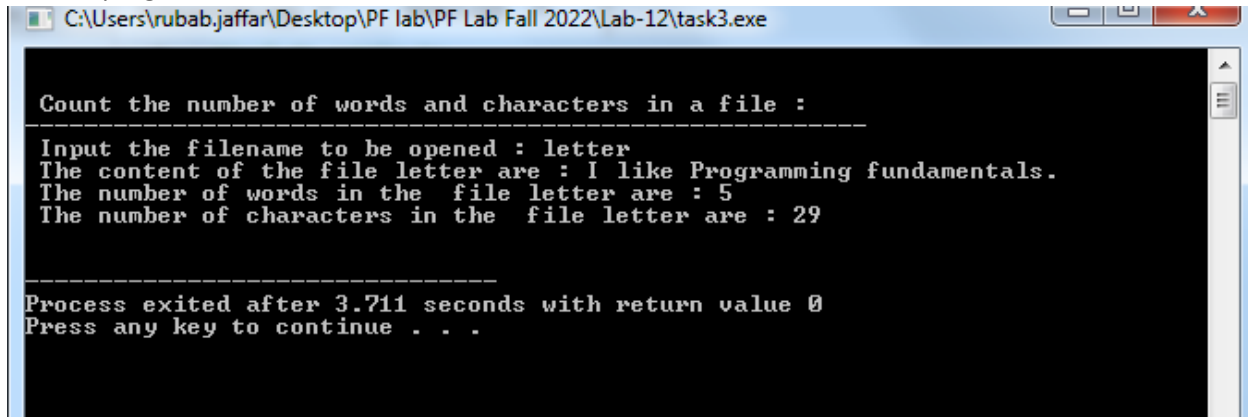
```
test - Notepad
File Edit Format View Help
128.000000
167.600000
111.000000
```

Task 6:

Write a C program to create 2 text files and store some text inside them. Then read these 2 files into the program and merge the text into a 3rd text file.

Task 7:

Write a program in C to count number of words and characters in a file.

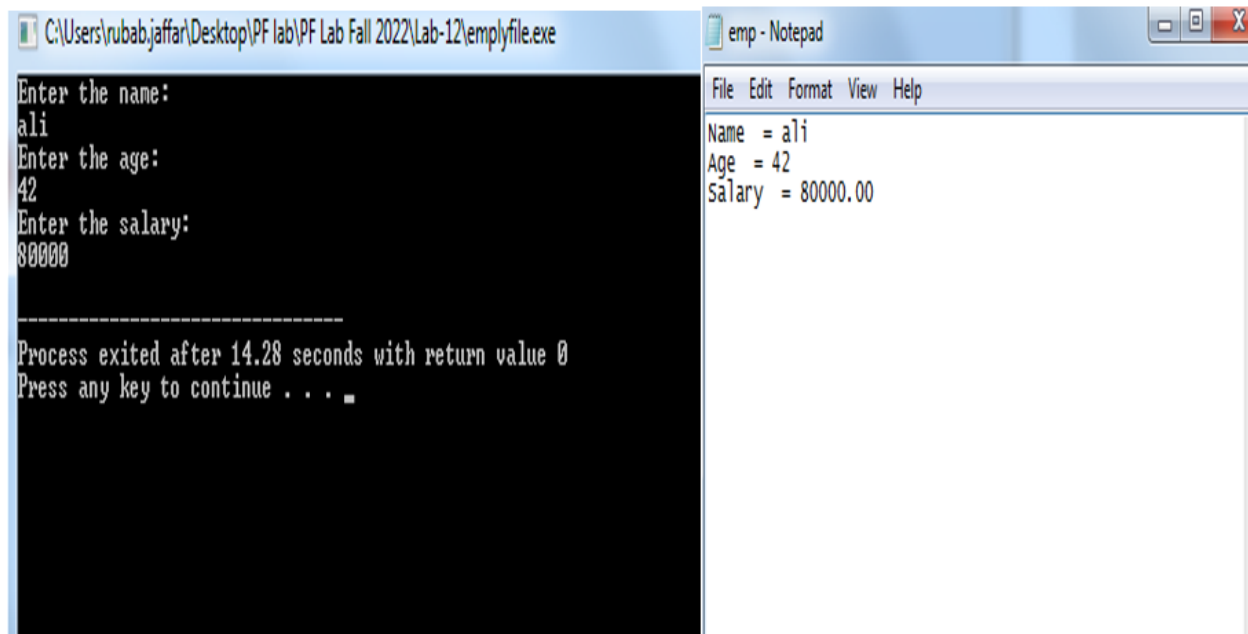


A screenshot of a Windows command prompt window titled "C:\Users\rubab.jaffar\Desktop\PF lab\PF Lab Fall 2022\Lab-12\task3.exe". The program prompts the user to "Count the number of words and characters in a file :". The user inputs "letter". The program then displays the file's content: "The content of the file letter are : I like Programming fundamentals." It also shows the word and character counts: "The number of words in the file letter are : 5" and "The number of characters in the file letter are : 29". The program concludes with "Process exited after 3.711 seconds with return value 0" and "Press any key to continue . . .".

```
Count the number of words and characters in a file :
-----
Input the filename to be opened : letter
The content of the file letter are : I like Programming fundamentals.
The number of words in the file letter are : 5
The number of characters in the file letter are : 29
-----
Process exited after 3.711 seconds with return value 0
Press any key to continue . . .
```

Task 8:

C program to create a file called emp.txt and store information about a person, in terms of his name, age and salary.



A screenshot showing two windows. On the left is a command prompt window titled "C:\Users\rubab.jaffar\Desktop\PF lab\PF Lab Fall 2022\Lab-12\empfile.exe". It prompts for "Enter the name:", "Enter the age:", and "Enter the salary:". The user inputs "ali", "42", and "80000" respectively. The program then displays "Process exited after 14.28 seconds with return value 0" and "Press any key to continue . . .". On the right is a Notepad window titled "emp - Notepad" with a menu bar (File, Edit, Format, View, Help). The text in the Notepad window is "Name = ali", "Age = 42", and "Salary = 80000.00".

```
Enter the name:
ali
Enter the age:
42
Enter the salary:
80000
-----
Process exited after 14.28 seconds with return value 0
Press any key to continue . . .
```

emp - Notepad

File Edit Format View Help

Name = ali
Age = 42
Salary = 80000.00