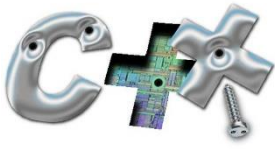# CSCI122 C++ PROGRAMMING II

Chapter 7 Assignment Directions

Due: the date and time are listed under the Chapter Assignments link in Blackboard

ASSIGNMENT	PAGE(S)	SPECIAL NOTES / INFORMATION
Read Chapter 7	467-511	**Textbook:** • Please read the chapter
View the Chapter Resources		**Blackboard:** • Chapter 7 (link) • Chapter Resource Information (link)
Programming Exercise 7a-e: Calculator Program **Important Note:** *follow the book directions <u>exactly</u> along with coding the output to look like the print screens (below, pages 1-3) to receive full credit*	519-520	**Blackboard & Textbook:** • Chapter 7 (link) • Assignment & Quiz Information (link) • C7Ex7a-e: Calculator Program Upload (link)
Quiz		**Blackboard:** • Chapter 7 (link) • Assignment & Quiz Information (link) • Chapter 7 Practice Quiz (link) *optional* • Chapter 7 Quiz (link)

PROGRAMMING EXERCISE 7 OUTPUT:


```
D:\W2021\CSCI122 C++ II\aaDesign_DataStructure\Assignments\C7\C7E...    —    □    ✕
******************** Fraction Calculator Program ********************

This program performs operations (+, -, *, /) on fractions.
You will be prompted for the Numerator and Denominator for each fraction.
1 : To add fraction
2 : To subtract fraction
3 : To multiply fraction
4 : To divide fraction
9 : To exit the program

Please enter a Menu Option listed above: 1

For Fraction 1:
Please enter the Numerator: 2

Please enter the Denominator: 6

For Fraction 2:
Please enter the Numerator: 3

Please enter the Denominator: 6

Operation Result: 2/6 + 3/6 = 30/36

Press any key to clear the screen and display the Menu ...
```
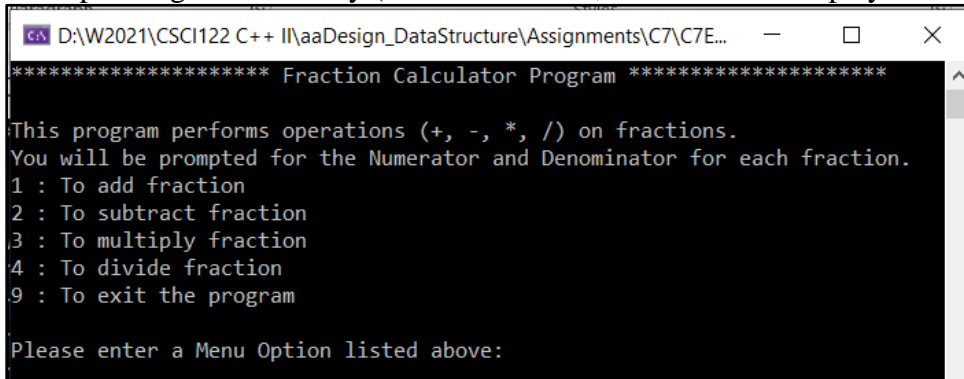
✓ The user entered option 1 (add fractions) and the output, to the left, is displayed.
✓ The output for options 2. 3. and 4 is identical <u>except</u> for the Operation Result line, which will change to -, *, or /.
✓ Pay attention to the different pause screen messages (Press any key …) so unnecessary points are not deducted.

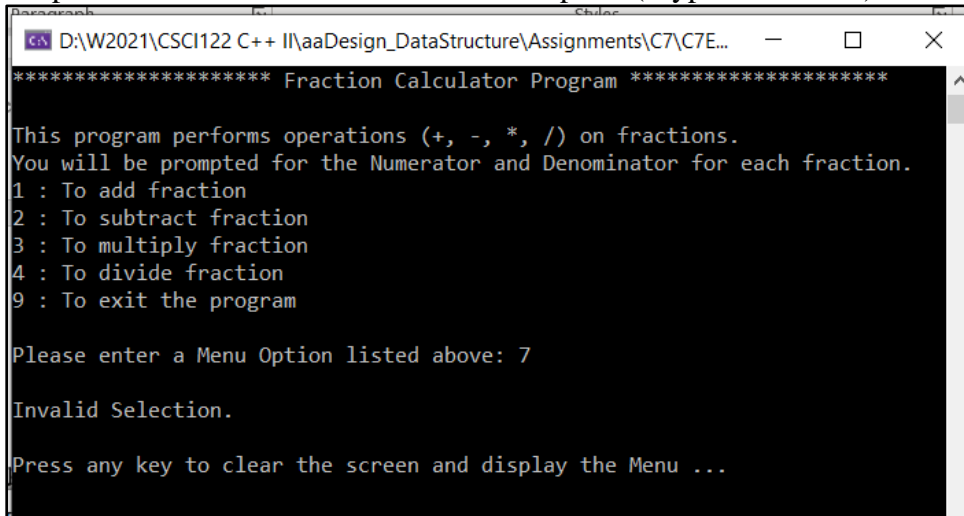After pressing the Enter key (the screen clears, and the menu displays so the user can make another choice):

```
D:\W2021\CSCI122 C++ II\aaDesign_DataStructure\Assignments\C7\C7E...    —    □    ×

******************** Fraction Calculator Program ********************

This program performs operations (+, -, *, /) on fractions.
You will be prompted for the Numerator and Denominator for each fraction.
1 : To add fraction
2 : To subtract fraction
3 : To multiply fraction
4 : To divide fraction
9 : To exit the program

Please enter a Menu Option listed above:
```

Output if the user selects an invalid menu option (I typed number 7):

```
D:\W2021\CSCI122 C++ II\aaDesign_DataStructure\Assignments\C7\C7E...    —    □    ×

******************** Fraction Calculator Program ********************

This program performs operations (+, -, *, /) on fractions.
You will be prompted for the Numerator and Denominator for each fraction.
1 : To add fraction
2 : To subtract fraction
3 : To multiply fraction
4 : To divide fraction
9 : To exit the program

Please enter a Menu Option listed above: 7

Invalid Selection.

Press any key to clear the screen and display the Menu ...
```

After pressing the Enter key (the screen clears, and the menu displays so the user can make another choice):

```
D:\W2021\CSCI122 C++ II\aaDesign_DataStructure\Assignments\C7\C7E...    —    □    ×

******************** Fraction Calculator Program ********************

This program performs operations (+, -, *, /) on fractions.
You will be prompted for the Numerator and Denominator for each fraction.
1 : To add fraction
2 : To subtract fraction
3 : To multiply fraction
4 : To divide fraction
9 : To exit the program

Please enter a Menu Option listed above:
```
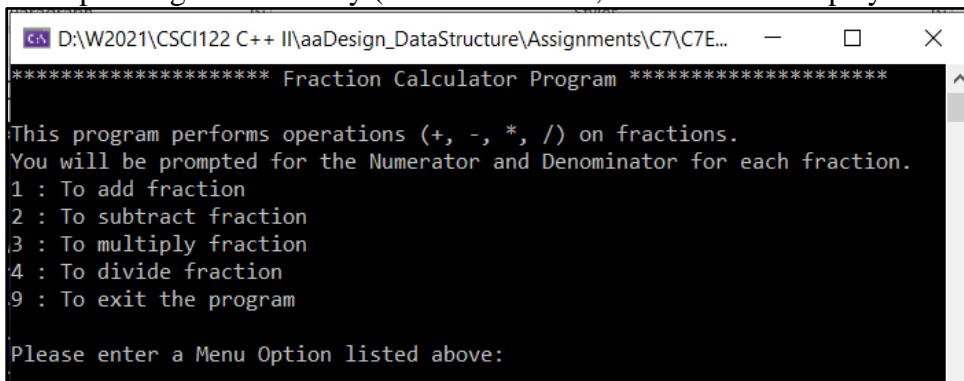
Output if the user selects option 9 to exit the program:

```
D:\W2021\CSCI122 C++ II\aaDesign_DataStructure\Assignments\C7\C7Ex7\Debug\C7Ex7.exe        —    □    ×

******************** Fraction Calculator Program ********************

This program performs operations (+, -, *, /) on fractions.
You will be prompted for the Numerator and Denominator for each fraction.
1 : To add fraction
2 : To subtract fraction
3 : To multiply fraction
4 : To divide fraction
9 : To exit the program

Please enter a Menu Option listed above: 9

Thank you for running the Fraction Calculator Program (press any key to end the program)
```

Output if the user types a zero for the denominator (same output for Options 1-4) except for the Operation Result line, which will change to -, *, or /:

```
D:\W2021\CSCI122 C++ II\aaDesign_DataStructure\Assignments\C7\C7Ex7\Debug\...    —    □    ×

******************** Fraction Calculator Program ********************

This program performs operations (+, -, *, /) on fractions.
You will be prompted for the Numerator and Denominator for each fraction.
1 : To add fraction
2 : To subtract fraction
3 : To multiply fraction
4 : To divide fraction
9 : To exit the program

Please enter a Menu Option listed above: 1

For Fraction 1:
Please enter the Numerator: 2

Please enter the Denominator: 0

The Denominator must be nonzero.
Please enter the Denominator: 4

For Fraction 2:
Please enter the Numerator: 3

Please enter the Denominator: 0

The Denominator must be nonzero.
Please enter the Denominator: 4

Operation Result: 2/4 + 3/4 = 20/16

Press any key to clear the screen and display the Menu ...
```

```
D:\W2021\CSCI122 C++ II\aaDesign_DataStructure\Assignments\C7\C7Ex7\Debug\...    —    □    ×

******************** Fraction Calculator Program ********************

This program performs operations (+, -, *, /) on fractions.
You will be prompted for the Numerator and Denominator for each fraction.
1 : To add fraction
2 : To subtract fraction
3 : To multiply fraction
4 : To divide fraction
9 : To exit the program

Please enter a Menu Option listed above: 4

For Fraction 1:
Please enter the Numerator: 2

Please enter the Denominator: 0

The Denominator must be nonzero.
Please enter the Denominator: 2

For Fraction 2:
Please enter the Numerator: 6

Please enter the Denominator: 0

The Denominator must be nonzero.
Please enter the Denominator: 6

Operation Result: 2/2 / 6/6 = 12/12

Press any key to clear the screen and display the Menu ...
```

DOCUMENTATION – TOP OF SOURCE CODE:	
//Programmer:	Your full name
//Due Date:	Date the program is due
//Assignment:	Chapter 7, Exercise 7a-e, Pages 519- 520
//Description:	Brief description of the program