Activity No. 2.1	
Hands-on Activity 2.1: Data Types and Arithmetic Operations	
Course Code: CPE 007	**Program:** Computer Engi
Course Title: Programming Logic and Design	**Date Performed: 02/08/2025**
Section: CPE11S1	**Date Submitted:**
Name: Canoy Hail B.	**Instructor:** Jimlord M. Quejado

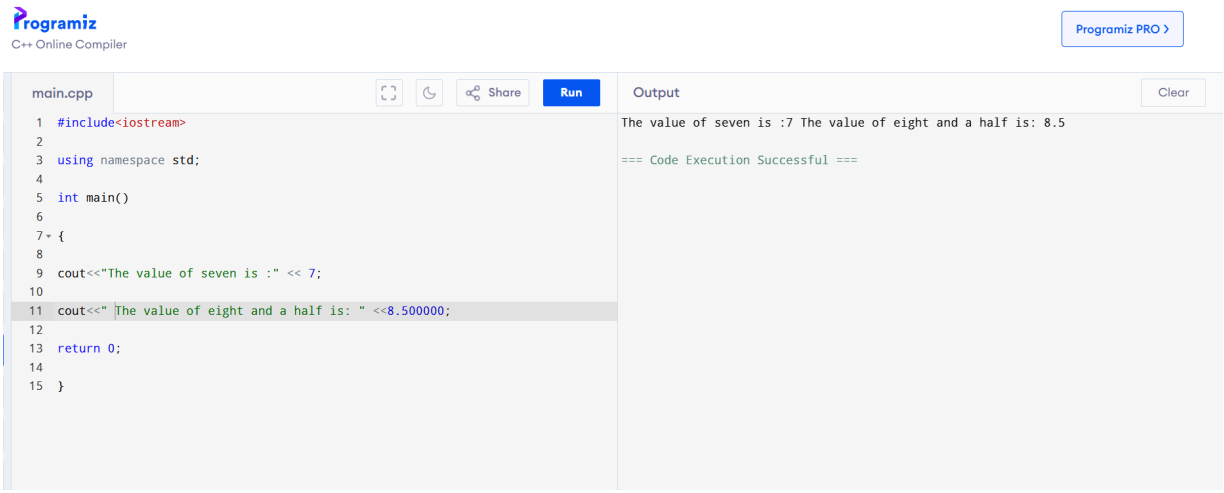
6. Output

Example 1: The following program has an output of: - The output has a comma and semi column and lack doesn't have the input to get the value.

The value of seven is: 7.000000

The value of eight and a half is: 8.500000

Can you find all possible compilation errors and logic errors? Can you fix them to print the same result as the expected output? Before you use your compiler, try to find the errors only by manual code analysis.

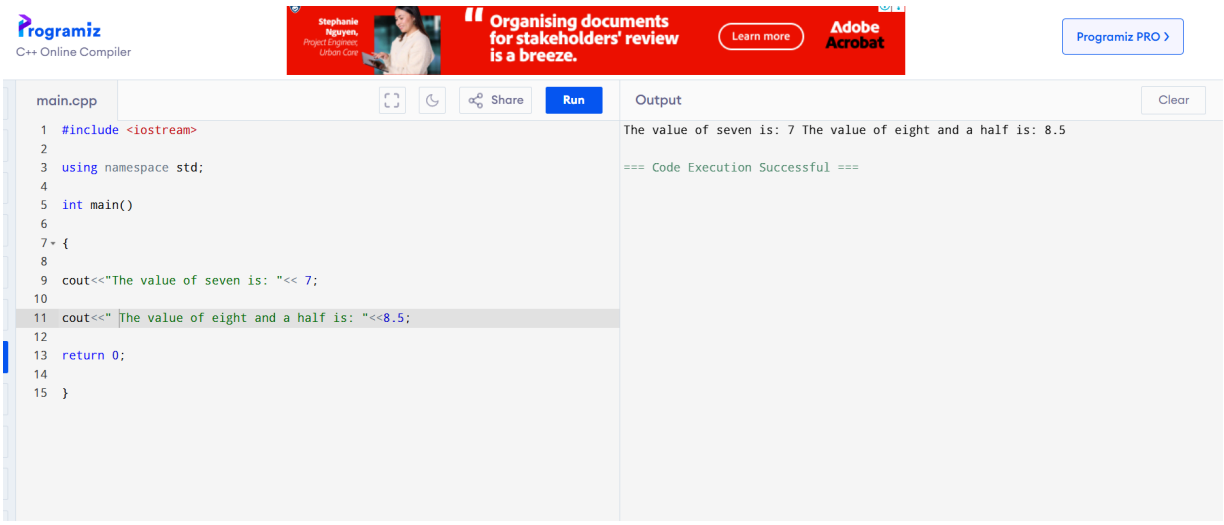


Example 2: The following program has an output of: - The output has spaces that aren't needed and lacks value for the code to run.

The value of seven is: 7.000000

The value of eight and a half is: 8.500000

Can you find all possible compilation errors and logic errors? Can you fix them to print the same result as the expected output? Before you use your compiler, try to find the errors only by manual code analysis.

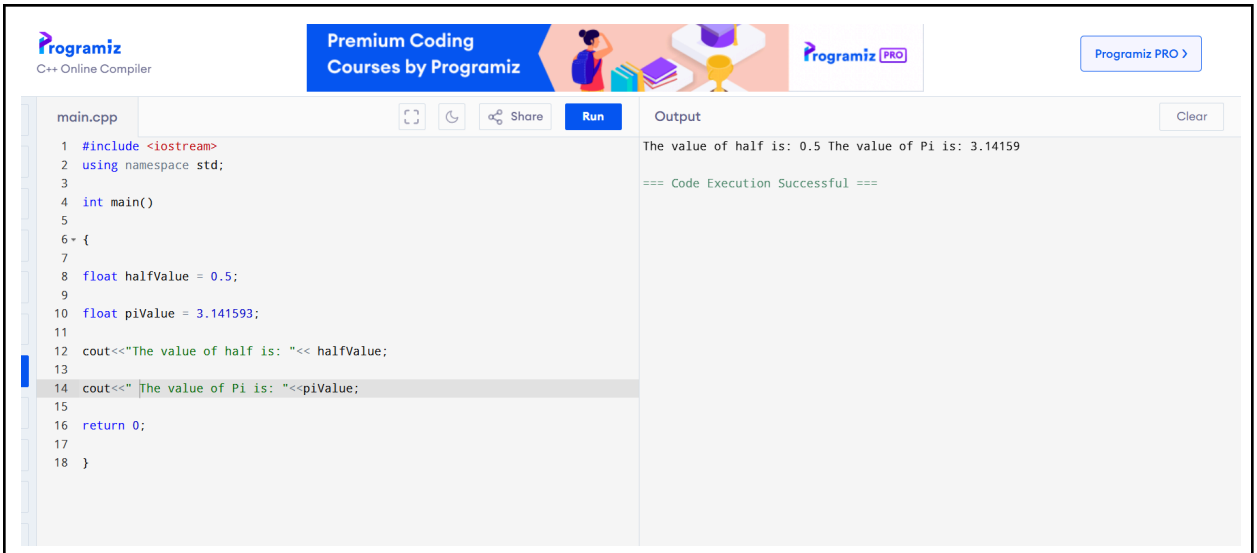


Example 3: The following program has an output of: - output has the error of adding underscore and spaces to the value and the code overall needs finalization.

The value of half is: 0.500000

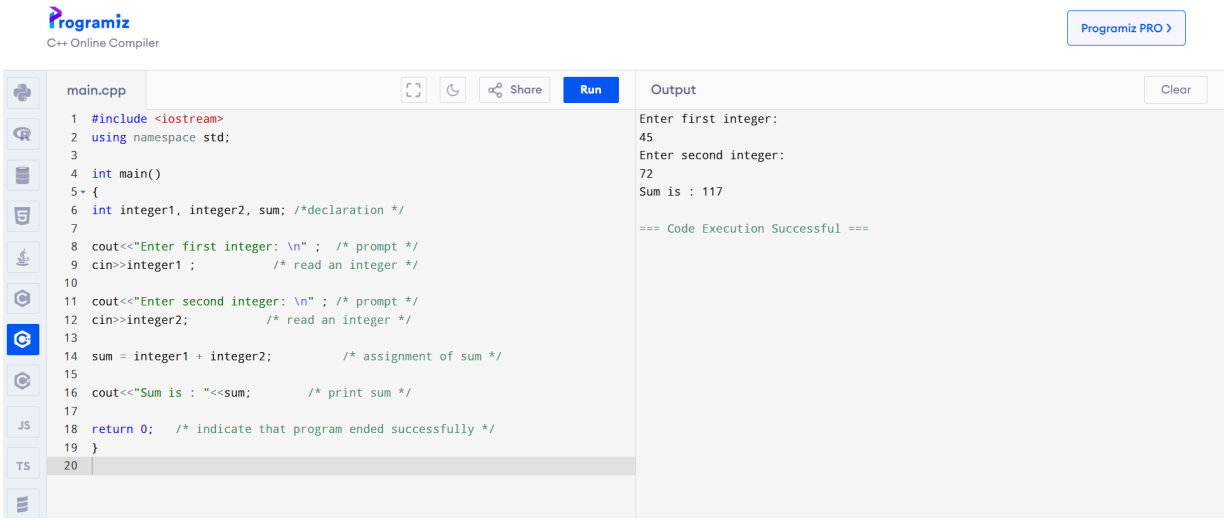
The value of Pi is: 3.141593

Can you find all possible compilation errors and logic errors? Can you fix them to print the same result as the expected output? Before you use your compiler, try to find the errors only by manual code analysis.



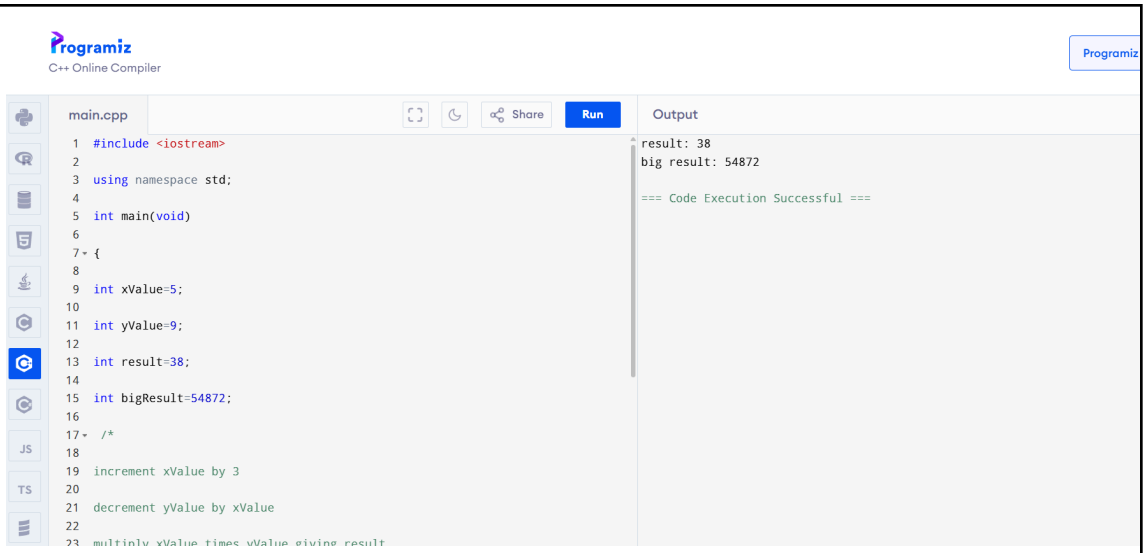
Example 4: Sample program for Adding Two Integers

The following program has an output of: - There are codes that are lacking space and some overdid it. It also lacks some codes and is in need of fixing.



7. Supplementary Activity

1. **Take a look at the code below: it assigns two integer values, manipulates them and finally outputs the result and bigresult variables. The problem is that the manipulations have been described using natural language, so the code is completely useless now. Act as an intelligent (naturally!) compiler and translate the formula into a real "C" code notation. Test your code using the data provided.**

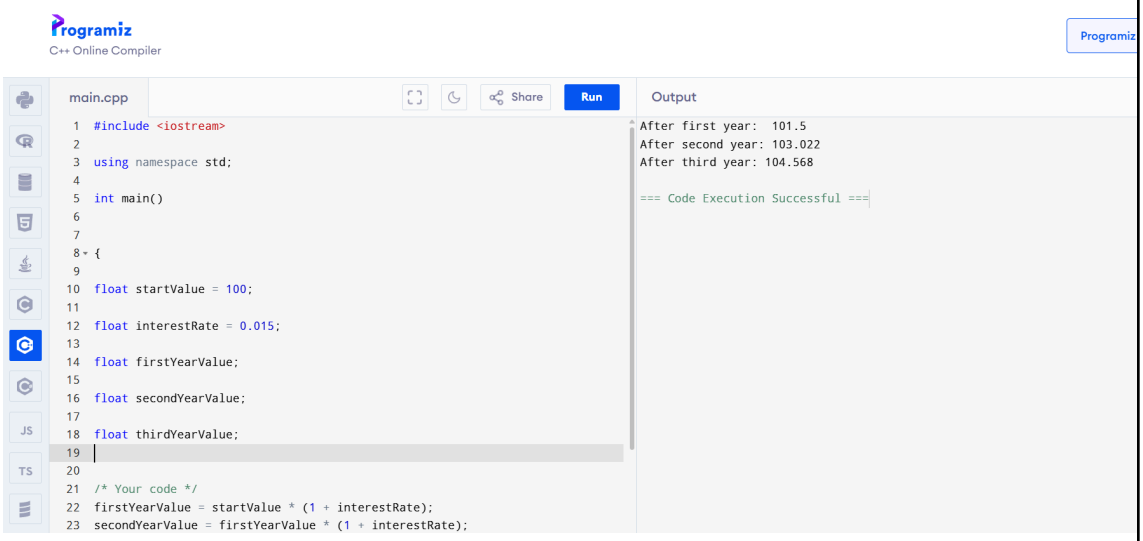


Code :

```
#include <iostream>

using namespace std;

int main(void)

{

int xValue=5;

int yValue=9;

int result=38;

int bigResult=54872;

 /*

increment xValue by 3
```

```
decrement yValue by xValue

multiply xValue times yValue giving result

increment result by result

decrement result by 1

assign result modulo result to yValue

increment result by result added to xValue

assign result times result times result to bigResult  increment result by xValue
times yValue

*/

cout<<"result: "<<result<<"\n";
cout<<"big result: "<< bigResult;

return 0;
}
```

2. **Complete the program below. Compute the accrued amount of money with a starting value of 100 and an annual interest rate of 1.5%. Compute and print the results for first three years. Your version of the program must print the same result as the expected output for every year. Compute each annual value on the basis of the previous year's value.**



Code :

```
#include <iostream>

using namespace std;

int main()


{

float startValue = 100;

float interestRate = 0.015;

float firstYearValue;

float secondYearValue;

float thirdYearValue;
```

```
/* Your code */
firstYearValue = startValue * (1 + interestRate);
secondYearValue = firstYearValue * (1 + interestRate);
thirdYearValue = secondYearValue * (1 + interestRate);

cout<<"After first year:  "<<firstYearValue<<"\n";
cout<<"After second year: "<<secondYearValue<<"\n";
cout<<"After third year: "<<thirdYearValue;

return 0;

}
```

8. Conclusion

- I finished this activity by correcting commas, spacing and added extra code to make it work properly and to complete this activity.

9. Assessment Rubric

Rubric for SO 7 (6)

Criteria	Ratings						Pts
SO 7 PI 1 IILO4 Utilize lifelong learning skills in pursuit of personal development and excellence in professional practice. threshold: 4.8 pts	6 pts Excellent | Educational interests and pursuits exist and flourish outside classroom requirements,knowledge and/or experiences are pursued independently and applies knowledge learned into practice	5 pts Good | Educational interests and pursuits exist and flourish outside classroom requirements,knowledge and/or experiences are pursued independently	4 pts Satisfactory | Look beyond classroom requirements, showing interest in pursuing knowledge independently	3 pts Unsatisfactory | Begins to look beyond classroom requirements, showing interest in pursuing knowledge independently	2 pts Poor | Relies on classroom instruction only	1 pts Very Poor | No initiative or interest in acquiring new knowledge	6 pts
SO 7 PI 2 IILO4 Utilize lifelong learning skills in pursuit of personal development and excellence in professional practice. threshold: 4.8 pts	6 pts Excellent | Completes an assigned task independently and practices continuous improvement	5 pts Good | Completes an assigned task without supervision or guidance	4 pts Satisfactory | Requires minimal guidance to complete an assigned task	3 pts Unsatisfactory | Requires detailed or step-by-step instructions to complete a task	2 pts Poor | Shows little interest to complete a task independently	1 pts Very Poor | No interest to complete a task independently	6 pts
SO 7 PI 3 IILO4 Utilize lifelong learning skills in pursuit of personal development and excellence in professional practice. threshold: 4.8 pts	6 pts Excellent | Synthesizes and integrates information from a variety of sources; formulates a clear and precise perspective; draws appropriate conclusions	5 pts Good | Evaluate information from a variety of sources; formulates a clear and precise perspective.	4 pts Satisfactory | Analyze information from a variety of sources; formulates a clear and precise perspective.	3 pts Unsatisfactory | Apply the gathered information to formulate the problem	2 pts Poor | Gather and summarized the information from a variety of sources but failed to formulate the problem	1 pts Very Poor | Gather information from a variety of sources	6 pts
SO 7 PI 4 IILO4 Utilize lifelong learning skills in pursuit of personal development and excellence in professional practice. threshold: 4.8 pts	6 pts Excellent | Ideas are combined in original and creative ways in line with the new and emerging technology trends to solve a problem or address an issue.	5 pts Good | Ideas are creative and adapt the new knowledge to solve a problem or address an issue	4 pts Satisfactory | Ideas are creative in solving a problem, or address an issue	3 pts Unsatisfactory | Shows some creative ways to solve the problem	2 pts Poor | Shows initiative and attempt to develop creative ideas to solve the problem	1 pts Very Poor | Ideas are copied or restated from the sources consulted	6 pts

Total Points: 24