

## Activity No. 2.2

<Replace with Title>

**Course Code:** CPE010

**Program:** Computer Engineering

**Course Title:** Data Structures and Algorithms

**Date Performed:** 8/12/2025

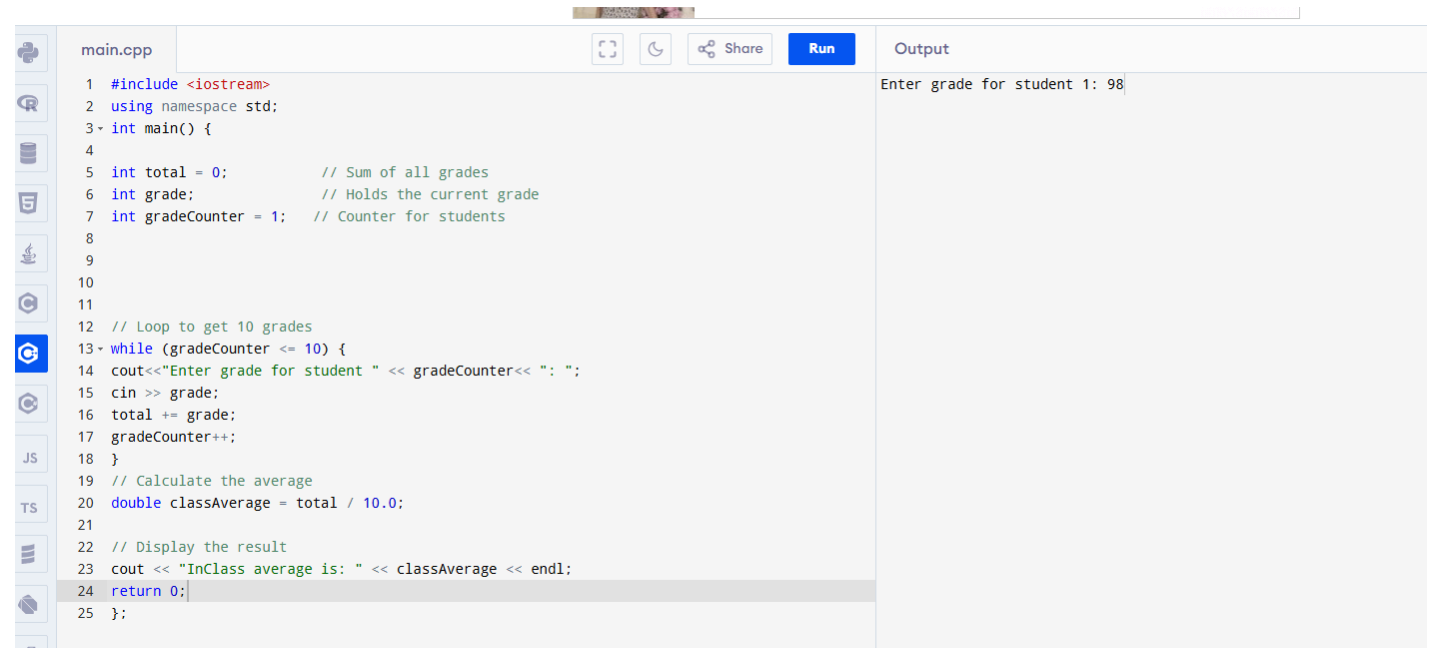
**Section:** 11S1

**Date Submitted:** 8/12/2025

**Name(s):** Marqui Joshua Cenar

**Instructor:** Engr. Jimlord M. Quejado

### 6. Output



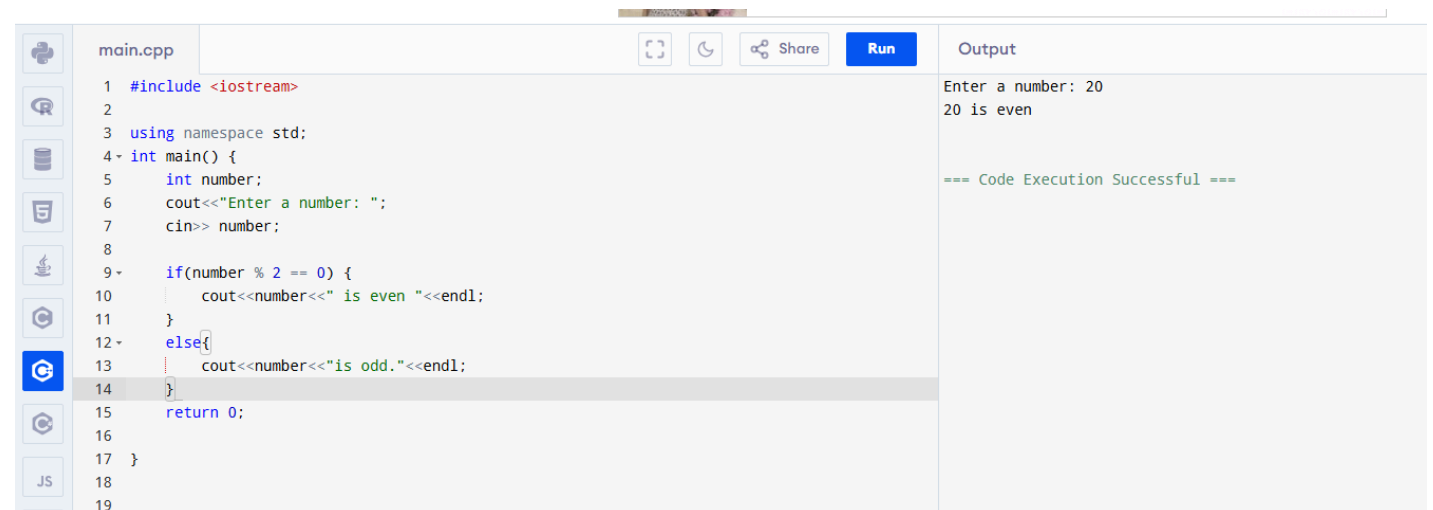
The screenshot shows a C++ program in a code editor. The code calculates the average of 10 grades. The output window shows the prompt "Enter grade for student 1: 98".

```
main.cpp
1 #include <iostream>
2 using namespace std;
3 int main() {
4
5     int total = 0;           // Sum of all grades
6     int grade;              // Holds the current grade
7     int gradeCounter = 1;   // Counter for students
8
9
10
11
12 // Loop to get 10 grades
13 while (gradeCounter <= 10) {
14     cout<<"Enter grade for student " << gradeCounter<< ": ";
15     cin >> grade;
16     total += grade;
17     gradeCounter++;
18 }
19 // Calculate the average
20 double classAverage = total / 10.0;
21
22 // Display the result
23 cout << "InClass average is: " << classAverage << endl;
24 return 0;
25 };
```

Output

Enter grade for student 1: 98

### 7. Supplementary Activity



The screenshot shows a C++ program in a code editor. The code checks if a number is even or odd. The output window shows the prompt "Enter a number: 20" and the result "20 is even".

```
main.cpp
1 #include <iostream>
2
3 using namespace std;
4 int main() {
5     int number;
6     cout<<"Enter a number: ";
7     cin>> number;
8
9     if(number % 2 == 0) {
10         cout<<number<<" is even "<<endl;
11     }
12     else{
13         cout<<number<<"is odd."<<endl;
14     }
15     return 0;
16
17 }
18
19
```

Output

Enter a number: 20  
20 is even

=== Code Execution Successful ===

main.cpp

Run

```
1 #include <iostream>
2
3 using namespace std;
4 int main() {
5     int age;
6     double fare = 10.0; // Base fare
7
8
9     cout << "Enter your age: ";
10    cin >> age;
11
12    if(age >= 60) {
13        fare -= fare * 0.10;
14    }
15    else if (age >= 0 && age <= 25) {
16        fare -= fare * 0.08;
17    }
18    if (fare < 9.0) {
19        fare = 0.0;
20    }
21    cout << "Your fare is: " << fare << " pesos. " << endl;
22
23    return 0;
24 }
25
26
```

Output

Enter your age: 60  
Your fare is: 9 pesos.

=== Code Execution Successful ===



main.cpp

Run

```
1 #include <iostream>
2 using namespace std;
3
4 int main() {
5     int grade;
6     int total = 0;
7     int counter = 0;
8     double average;
9
10    cout << "Enter your grade (-1 to stop): ";
11    cin >> grade;
12
13    while (grade != -1){
14        total += grade;
15        counter++;
16        cout << " 1.25 (-1 to stop): ";
17        cin >> grade;
18    }
19
20    if (counter != 0) {
21        average = static_cast<double>(total) / counter;
22        cout << "Class average is " << average << endl;
23    } else {
24        cout << "No grades were entered." << endl;
25    }
26    return 0;
27 }
28
```

Output





Enter your grade (-1 to stop):90  
Enter your grade (-1 to stop):91  
Enter your grade (-1 to stop):92  
Enter your grade (-1 to stop):93  
Enter your grade (-1 to stop):94  
Enter your grade (-1 to stop):95  
Enter your grade (-1 to stop):96  
Enter your grade (-1 to stop):97  
Enter your grade (-1 to stop):98  
Enter your grade (-1 to stop):99  
Enter your grade (-1 to stop): -1  
Class average is:94

Clear

## 8. Conclusion

I learned that doing these programs to make or manipulate a computer to have decisions using "if" and "else" statements.

## 9. Assessment Rubric

Rubric for SO 7 (7)							
Criteria		Ratings					Pts
 SO 7 PI 1 ILO4 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 ILO4 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 ILO4 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 ILO4 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							