 **SC-114 Fundamentals of Programming**

**Title:**

Assignment 1

**Submitted by:**

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**Submitted to:**

Dr. Talha Shahid

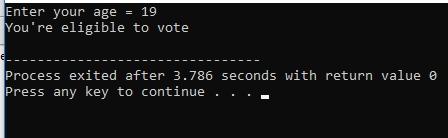
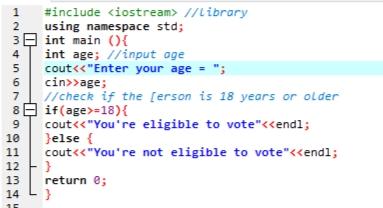
**Date of submission:**

12 October 2023

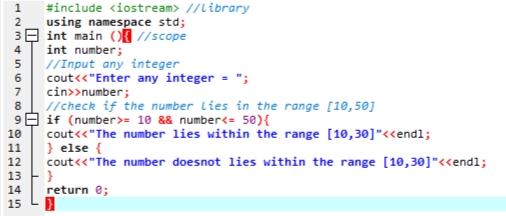
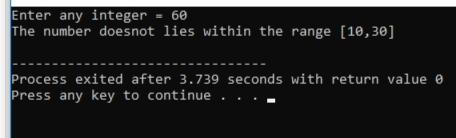
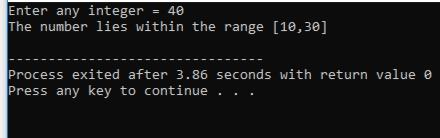
**Lab manual 2**

**Lab tasks**

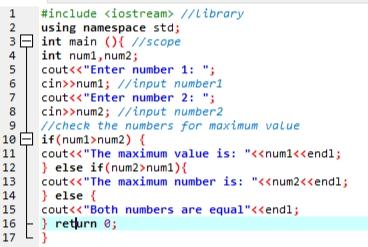
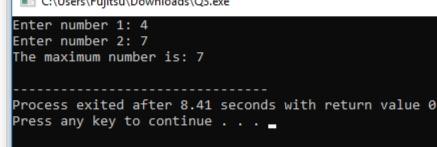
1. Write a program that determines if a person is eligible to vote based on their age (e.g., 18 Years or older) using logical operators.



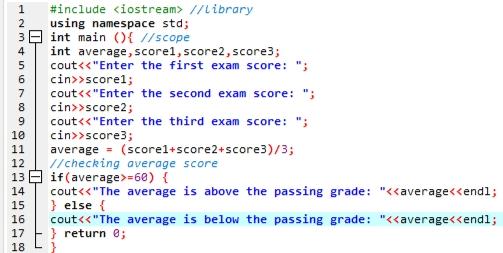
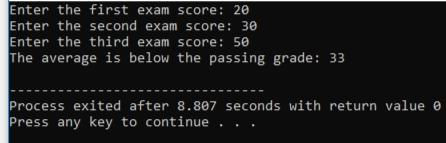
1. Write a program that takes an integer as input and checks if it falls within the range [10, 30] Using logical operators.



1. Write a C++ program to compare two integers and find the maximum value.



1. Write a C++ program to calculate the average of three exam scores and determine if it’s Above a passing grade (e.g., average >= 60).



**Hometasks**

1. Create a program that takes a student’s score as input and assigns a grade based on Predefined criteria using logical operators (e.g., A, B, C, D, F).

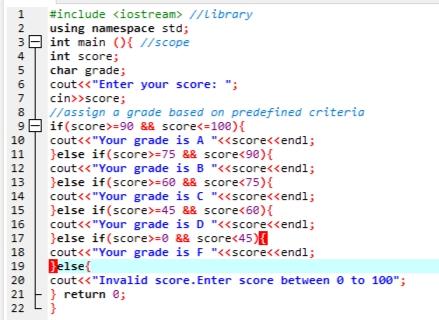
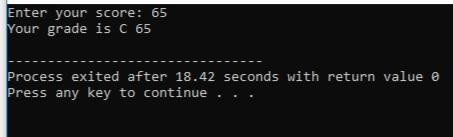
A-Grade: 90-100 Marks

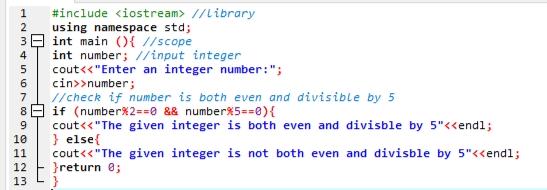
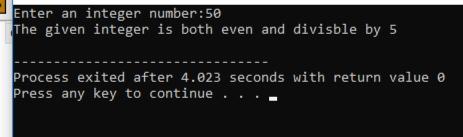
B-Grade: 75-90 Marks

C-Grade: 60-75 Marks

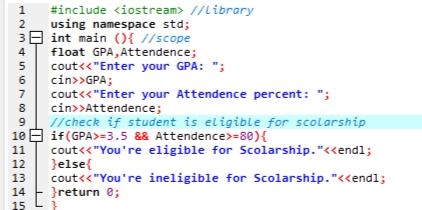
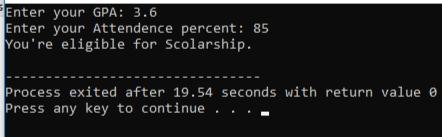
D-Grade: 45-60 Marks

F-Grade: 0-45 Marks

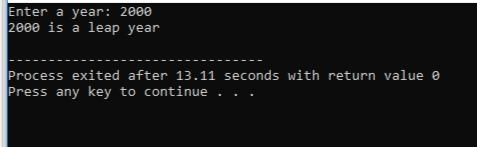
1. Write a program that takes an integer as input and determines if it is both even and divisible by 5.

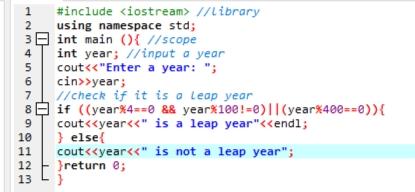


1. Create a C++ program that determines if a student is eligible for a scholarship based on their GPA (must have GPA >= 3.5) and attendance (must have attended at least 80% of classes).



1. Create a C++ program that checks if a user-provided year is a leap year.





1. Write a program that checks if a given character is a vowel (a, e, i, o, u) or a consonant using logical operators.



