NUST SCHOOL OF MECHANICAL &MANUFACTURING ENGINEERING

## ASSIGNMENT NO:1

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## Batch: ME-15

## Section: A

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## Group Members Name:

## Course: FOP

## Course Instructor: Dr. Jawad

## Lab Instructor: Sir Affan.

## 

## Date: 25 /11 /2023

## SMME ❤︎

1. Write a C++ program to display factors of a number using for loops.

A computer screen shot of a computer code

Description automatically generated

1. Write output to the following code.

A screenshot of a computer

Description automatically generated

1. Write a C++ program, take an integer value from user and check if it’s greater than 10 and less thanequal to 20. Print 1 if yes and print 0 if no. Use appropriate datatype for output.

A computer screen with a black screen and a black box with red and blue text

Description automatically generated

1. Write a C++ program that uses a while loop to find the largest prime number less than a given positive integer N. Your program should take the value of N as input from the user and then find the largest prime number less than or equal to N. You are not allowed to use any library or pre-existing functions to check for prime numbers.

A screenshot of a computer

Description automatically generated

1. Write a C++ program, take two string as input from user and check if both strings are equal or not. If they are equal make them unequal by rotating string. e.g., Hello is turned into olleH etc.

A screenshot of a computer program

Description automatically generated

1. Perform division in C++ without / using for loops. You can use / only to display the final results. Your dividend must be greater than divisor. #include int main() { int x = 5; int y = 10; if (x == 5) if (y == 10) std::cout << "x is 5 and y is 10" << std::endl; else std::cout << "x is not 5" << std::endl; return 0; }

A computer screen shot of a computer code

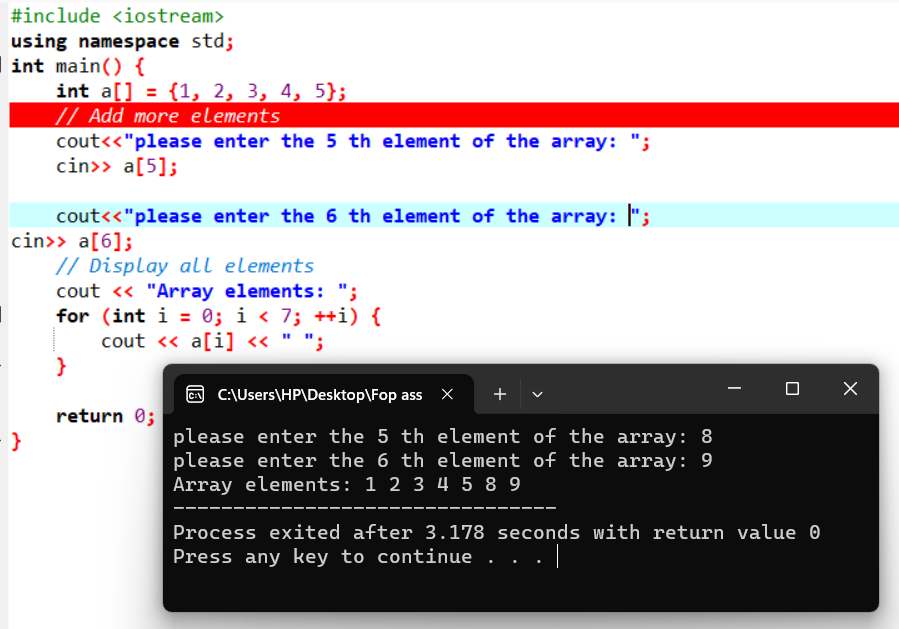
Description automatically generated

1. Write a C++program for a string which may contain lowercase and uppercase characters. The task is to remove all duplicate characters from the string and find the resultant string.

A computer screen shot of a computer code

Description automatically generated

1. Suppose an integer array a[5] = {1,2,3,4,5}. Add more elements to it and display them in C++.



1. Given an integer array and an integer X. Find if there’s a triplet in the array which sums up to the given integer X.

A computer screen with a black screen

Description automatically generated

1. Implement Bubble Sort on an array of 6 integers.

A screenshot of a computer program

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