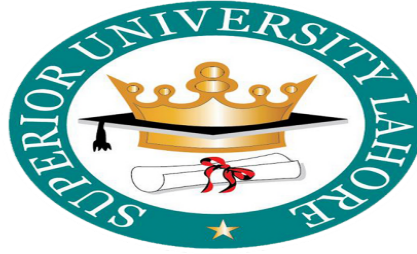


SUPERIOR UNIVERSITY LAHORE



Faculty of Computer Science & IT

Lab Manual

Computer Science for Session 2019 (Semester Fall-2019)

Programing Fundamentals

(Lab 3)

Target: Conditional Structure

(Lab 3)

Problem Set 1

- Write a C++ program to find maximum between two numbers.
- Write a C++ program to find maximum between three numbers.
- Write a C++ program to check whether a number is negative, positive or zero.
- Write a C++ program to check whether a number is divisible by 5 and 11 or not.
- Write a C++ program to check whether a number is Even or Odd.
- Write a C++ program to check whether a year is leap year or not.
- Write a C++ program to input any alphabet and check whether it is vowel or consonant.

Problem Set 2

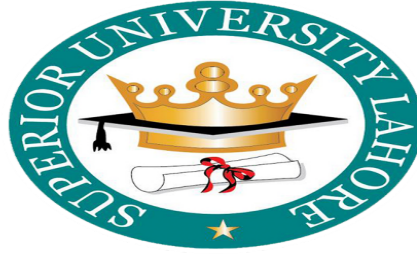
- Write a C++ program to input angles of a triangle and check whether triangle is valid or not.
- Write a C++ program to input all sides of a triangle and check whether right-triangle is valid or not.
- Write a C++ program to check whether the triangle is equilateral, isosceles or scalene triangle.

Problem Set 3

- Write a C++ program to find all roots of a quadratic equation.
- Write a C++ program to input marks of five subjects Physics, Chemistry, Biology, Mathematics and Computer. Calculate percentage and grade according to following:
Percentage $\geq 90\%$: Grade A
Percentage $\geq 80\%$: Grade B
Percentage $\geq 70\%$: Grade C

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Percentage $\geq 60\%$: Grade D

Percentage $\geq 40\%$: Grade E

Percentage $< 40\%$: Grade F

- Write a C++ program to input basic salary of an employee and calculate its Gross salary according to following:
Basic Salary ≤ 10000 : HRA = 20%, DA = 80%
Basic Salary ≤ 20000 : HRA = 25%, DA = 90%
Basic Salary > 20000 : HRA = 30%, DA = 95%
- Write a C++ program to input electricity unit charges and calculate total electricity bill according to the given condition:
For first 50 units Rs. 0.50/unit
For next 100 units Rs. 0.75/unit
For next 100 units Rs. 1.20/unit
For unit above 250 Rs. 1.50/unit
An additional surcharge of 20% is added to the bill