

University of Mila
Faculty of Science and Technology
Department of Process Engineering

Practical Work 06

Course : Structure of Computers and Applications

Level: 1st year ST - ENG & LMD

By:

Dr. KECITA Farouk

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Exercise 01: Student Pass Check and Number Range

Question 01: Write a C program to check whether a student passes using his grade.

Note:

- Condition to pass: Grade should be greater than or equal to 33.
- Valid grade range: 0 to 100.

Question 02: Write a C program to check whether a number is greater than 20 or smaller than 10.

Exercise 02: Odd/Even Check and Maximum of Two Numbers

Question 01: Write a C Program to check whether the given number is an odd number or an even number.

Question 02: Write a C program to find maximum between two numbers.

Exercise 03: Combined Conditions and Maximum of 3Numbers

Question 01: Write a C program to check if the number is both greater than 20 and is odd.

Question 02: Write a C program to find maximum between three numbers.

Exercise 04 : Number Sign Check

Question : Write a C program to check whether a number is negative, positive or zero.

Exercise 05 (Optional): Quadratic Equation Roots

Question : Write a C program to find all roots of a quadratic equation.

Exercise 06 (Optional): Profit or Loss Calculation

Question : Write a C program to input cost price and selling price of a product and check profit or loss.

Exercise 07: Student Grade Calculation

Question : Write a C program to input marks of five subjects Physics, Chemistry, Biology, Mathematics and Computer, calculate percentage and grade according to given conditions:

- If percentage $\geq 90\%$: Grade A
- If percentage $\geq 80\%$: Grade B
- If percentage $\geq 70\%$: Grade C
- If percentage $\geq 60\%$: Grade D
- If percentage $\geq 40\%$: Grade E

- If percentage < 40% : Grade F

Exercise 08 (Optional): Week Day Name

Question : Write a C program to input week number (1-7) and print day of week name using switch case.

Exercise 09: Maximum Using Switch Case

Question : Write a C program to input two numbers from user and find maximum between two numbers using switch case.

Exercise 10: Number Sign Using Switch Case

Question : Write a C program to input a number and check positive negative or zero using switch case.

Exercise 11 (Homework): Menu Driven Calculator

Question : Write a C program to create menu driven calculator that performs basic arithmetic operations (add, subtract, multiply and divide) using switch case.