
Lab. (6) **Switch Case**

Answer the following questions

(using switch case method)

- 1) Write a C++ program that reads a set of integers and then prints the sum of the even numbers.
- 2) Write the following program: The user is asked to enter 2 floating point numbers (use doubles). The user is then asked to enter one of the following mathematical symbols +, -, *, or /. The program computes the answer on the two numbers the user entered and prints the results. If the user enters an invalid symbol, the program should print nothing.
- 3) Write a C++ program to read temperature in centigrade and display a suitable message according to temperature state below : Temp < 0 then Freezing weather, Temp 0-10 then Very Cold weather, Temp 10-20 then Cold weather, Temp 20-30 then Normal in Temp, Temp 30-40 then It's Hot, Temp >=40 then It's Very Hot
- 4) Write a C++ program that reads a guest balance from the user for a guest which his balance (0:10000) as an input argument. The program yields the interest rate according to the following table:

| balance | Interest rate |
|--------------------------|---------------|
| 5000 <= balance <= 10000 | 7 % |
| 2500 <= balance < 5000 | 5 % |
| 1000 <= balance < 2500 | 3 % |
| 100 <= balance < 1000 | 2 % |
| balance < 100 | 0 % |

5) Write a C++ program to establish a password consists of seven numbers for the treasury of a factory. In the case of entering correct password, a message will appear to the user (Treasury ready to open). Whereas in case of entering incorrect password, a message will appear to the user (sorry, try again). The program permits the user to enter incorrect password for only 3 times then terminates. Remark a password is (2385110).

6) Write a C++ program that displays the following menu:

1. convert from Celsius to Fahrenheit
2. convert from Celsius to Kelvin
3. convert from Kelvin to Celsius
4. convert from Fahrenheit to Celsius

The program should first ask the user to select a converter (1 or 2 or 3 or 4). If for example the user enters 2 then the program will ask the user to “enter the temperature in Celsius” and then calculates the temperature in Kelvin and displays this on the screen “temperature in Kelvin = “.

$$\begin{aligned} Kelvin &= Celsius + 273 \\ Fahrenheit &= (Celsius * 9/5) + 32 \end{aligned}$$

7) Write a C++ program that ask the user to enter a number with any value. The program then checks the value of the entered number if the value is in between 0 and 100 (both included) the program prints “in range” otherwise the program prints “out of range”.

8) Write a program that will display a list of products:

- | | | |
|-----------------|---------------|----------------|
| 1- Honey (40LE) | 2- Tea (10LE) | 3- Sugar (5LE) |
| 4- Meat (90LE) | 5- Salt (2LE) | 6- Oil (10LE) |

And ask the user to enter the product number plus how many of it, (note: the user can select more than one product). Finally, the program will stop and out the total price if the user enters 0 at the product number.