Laboratory Exercise

Programming Fundamentals
Lab # 04

Department of Computer Science

PF Lab 4

Objectives

- Input / Output
- Comments
- Arithmetic operators
- Practice problems & exercises.

Note: Carefully read the following instructions.

1. Write a C++ statement(s) for each of the following task one after the other, in the same order.
2. Make a Microsoft Word file and past all of your C++ code in MS word files one by one.
3. Take at least one snapshot of every task on console and insert after every task in MS word file.
4. First think about statement problems and then write/draw your logic on copy.
5. After copy pencil work, code the problem statement on MS Studio C++ compiler.
6. At the end, when you are done with your today lab tasks, attach MS word file and make your submission on classroom.

Problem 1:

Write a C++ program that prompts the user to input the elapsed time for an event in hours, minutes, and seconds. The program then outputs the elapsed time in seconds.

Problem 2:

Write a program that prompts the capacity, in gallons, of an automobile fuel tank and the miles per gallons the automobile can be driven. The program outputs the number of miles the automobile can be driven without refueling.

Problem 3:

Write a program that prompts the user to input a length expressed in centimetres. The program should then convert the length to inches (to the nearest inch) and output the length expressed in yards, feet, and inches, in that order.
For example, suppose the input for centimetres is 312. To the nearest inch, 312 centimetres is equal to 123 inches. 123 inches would thus be output as:

3 yard(s), 1 feet (foot), and 3 inch(es).

Problem 4:

Write a program that calculates and prints the monthly pay check for an Employee. The net pay is calculated after taking the following deductions:

Federal Income Tax: 15%
State Tax: 3.5%
Social Security Tax: 5.75%
Medicare/Medicaid Tax: 2.75%
Pension Plan: 5%
Health Insurance: $75.00

Problem 5:

Write a program that prompts the user to enter the weight of a person in kilograms and outputs The equivalent weight in pounds. Output both the weights rounded to two decimal places. (Note that 1 kilogram ¼ 2.2 pounds.) Format your output with two decimal places.

Problem 6:

Write a program which accept temperature in Fahrenheit and print it in centigrade.

Problem 7:

Write a program which accept principle, rate and time from user and print the simple interest.

Problem 8:

Write a program which accepts a character and display its ASCII value.

Problem 9:

Write a program to swap value of two variables without using third variable

Problem 10:

Write a program which accepts days as integer and display total number of years, months and days in it.

for example : If user input as 856 days the output should be 2 years 4 months 6 days.

You are done with your exercise; submit.