



Assignment 1

Delivery Notes:

- This is a group assignment of 2 members (at most) and the members should be from the same lab i.e. G1&G2 can work together.
 - Both students should work and fully understand everything in the code.
 - Due date is on Friday 15/3/2019 until 11:59 pm (i.e., until midnight).
 - No late submission is allowed.
 - Submission will be through the Acadox:
<http://www.acadox.com/class/56658>
 - No submission through e-mails.
 - For each task you will develop a .cpp file that should include a block comment containing students IDs and names these files should be named task1.cpp and task2.cpp then put these 2 files in a folder named Prog1_FirstAssignment_firstStudentID&SecondStudentID and compress them to a .zip file with the same folder name. The compressed file would be the file to be delivered.
 - **Failing to abide by the naming conventions of the file, would result in a ZERO for both team members.**
 - For students who do their assignments on shared machines (e.g., on the FCI labs' machines or the students' residence machines), please make sure **to permanently delete your files from the shared machines after you finish your work**, so that no other student would take your files and submit it under their names.
 - **In case of Cheating if the assignment is from (N) marks then the one who have committed cheating will get (– N).**
 - You have to write clean code and follow a good coding style including choosing meaningful variable names.
-



Problem 1: Unit Converter

You are asked to make an application that can convert different units. For example, 1 meter = 100 cm.

- First we will print a list of measurements that we have and user will select one of them.
- Then we ask user to enter value of measurements and convert it to all other units using the following table

Temperature	
1 Celsius	33.8 Fahrenheit $(1c*9/5)+32$
	274.15 kelvin $(1c+273.15)$
Mass	
1 Kg	1000 gram
	2.205 pound
	0.001 ton
Length	
1 meter	100 cm
	0.001 Km
	3.281 foot
	1.094 yard

Example:

Welcome to Unit Converter!!

Choose one of options

1- Temperature in Celsius

2- Mass in Kg

3- Length in Meter

1

Enter value of temperature

20

Temperature in Fahrenheit = 68

Temperature in Kelvin = 293.15



Problem 2: Online Pizza Reservation

We want to develop an application for pizza restaurant so users can pick up items they wish and application calculate their total bill.

- Application first will print menu as illustrated in example below.
- User will enter number of one of items then the application will ask about quantity and size of pizza.
- Size of pizza is a character that can be (S (small), M (medium) and L (large)).
- The User can add extra topping with extra price such as(mushroom, onion , sausage)
- The program will run continually and will print to user “Do you want another item?” if user enter “No” the program will stop.
- The program finally print to user total bill that he/she must pay.

Example

Welcome to our Pizza restaurant!!!

Please select one of items

- 1- SUPER SUPREME - S=50 /M=75.5/ L=100
- 2- CHICKEN SUPREME - S=45/ M=73.88/ L=97.99
- 3- MARGHERITA - S=35/ M=70/ L=95
- 4- CHEESE LOVERS - S=60.96/ M=87.75/ L=113.16
- 5- SEA FOOD LOVERS - S= 64.47/ M=94.30/ L=123.25

2

You select CHICKEN SUPREME

Enter your quantity

2

Enter Size

M

Do you want extra topping ?

Yes

Please select one (mushroom = 10, onion =5 , sausage =10)

mushroom

Do you want another item?

Yes

Welcome to our Pizza restaurant!!!



Please select one of items

- 1- SUPER SUPREME - S=50 /M=75.5/ L=100
- 2- CHICKEN SUPREME - S=45/ M=73.88/ L=97.99
- 3- MARGHERITA - S=35/ M=70/ L=95
- 4- CHEESE LOVERS - S=60.96/ M=87.75/ L=113.16
- 5- SEA FOOD LOVERS - S= 64.47/ M=94.30/ L=123.25

5

You select SEA FOOD LOVERS

Enter your quantity

1

Enter Size

S

Do you want another item?

No

Do you want extra topping ?

No

Thank you for using our application your bill = 232.23

$(2 \times (73.88 + 10) + 1 \times 64.47)$
