

ASSIGNMENT #3

SUBJECT & BASIC INFORMATION

➡ Writing down a C++ automation program that performs grocery operations according to the criteria stated below.

- ✚ The program has two main functionality: assigning new products to the list (max size is 10) and printing a the product list on the screen
- ✚ There are 4 different product type in the supermarket as "1-FOOD", "2-DRINK", "3-JUNK" and "4-STATIONARY".
- ✚ Taxes depending on the product types are 3%, 5%,18% and 8% respectively.

➡ SAMPLE SCREEN OUTPUT

```

-----
----- PRODUCT LIST -----
-----
PRODUCT NAME.....: BREAD
PRODUCT ID.....: 1
PRODUCT TYPE.....: FOOD
PRODUCT PRICE.....: 3 TL
TAX PRICE.....: 0.09 TL
-----
PRODUCT NAME.....: MILK
PRODUCT ID.....: 2
PRODUCT TYPE.....: DRINK
PRODUCT PRICE.....: 10 TL
TAX PRICE.....: 0.5 TL
-----
PRODUCT NAME.....: CHIPS
PRODUCT ID.....: 3
PRODUCT TYPE.....: JUNK
PRODUCT PRICE.....: 9 TL
TAX PRICE.....: 1.62 TL
-----
PRODUCT NAME.....: PENCIL
PRODUCT ID.....: 4
PRODUCT TYPE.....: STATIONARY
PRODUCT PRICE.....: 15 TL
TAX PRICE.....: 1.2 TL
DO YOU WANT TO ADD NEW PRODUCT [Y/N] ?

```

REQUIREMENTS

- ➡ Define an enumeration type named **CATEGORY** that keeps the type of the product
- ➡ Define a struct named **PRODUCT** that keeps the information of the products (**name**, **id**, **type** and **price**)
- ➡ Define the type of the **PRODUCT** struct as the **CATEGORY** enumeration type.
- ➡ Define an array of 10-elements named **products** in **PRODUCT** struct to hold the product information
- ➡ The value of the first four element of the **products** array is initially assigned as follows:

NAME	ID	CATEGORY	PRICE
BREAD	1	FOOD	4
AYRAN	2	DRINK	4
CHIPS	3	JUNK	9
PENCIL	5	STATIONARY	20

- ➡ Other elements of the **products** array are requested from the user.
 - ✚ Write a function named **addProduct()**
 - ✚ The **addProduct()** function will ask the user for the product's name, id, category and price and assigns these values to an **PRODUCT** struct variable.
 - ✚ The **addProduct()** function will return the relevant product information which are assigned to an **PRODUCT** struct variable
 - ✚ Write a function named **printProducts()**
 - ✚ The **printProducts()** method writes all the information of the **products** array on the screen a
 - ✚ The **printProducts()** method will get the **products** array as input parameter.
 - ✚ The **printProducts()** method will calculate tax information of each product of the array

RULES & EVALUATION

- ➡ Using a **goto** statement is strictly prohibited.
- ➡ Each C++ file should include this comment lines below at the beginning of the C++ file

```
//*****
//**
//**      STUDENT NAME.....:      **
//**      STUDENT NUMBER.....:     **
//*****
```

- ➡ You should compile your codes with MingGW or GCC. (NOTE: If you use another compiler, please test your codes with these compilers before uploading your homework on system)
- ➡ **Deadline:** Control SABIS system
- ➡ A report should be prepared for each assignment
 - ✚ First page of the report should be a cover page including student information (name, surname, number, lecturer, course name, ...)
 - ✚ The content of the assignment (a brief explanation of your program) should be included after the cover page
 - ✚ At the end of the report, there should be an **'honor code'** signed by yourself.
- ➡ You should upload only your C++ file (.cpp file) and your report (in pdf format) together before deadline.
- ➡ Evaluation Criteria
 - ✚ Comment lines (student information, explaining operations like variable names, if statements, loops, etc.)
 - ✚ Obeying the variable declaration rules
 - ✚ Being readable (intendation, comments, etc.)
 - ✚ Correct compilation of the code
 - ✚ Reporting (cover page, content, honor code, etc.)
 - ✚ ...