SE311 SPRING 2018-2019 / 26/27-02-2019
Lab Work 2: Open Closed Principle and UML notation
Goal: Demonstration of OCP through an example.

1. We have discussed Open Closed Principle using computer parts example in the lecture and implemented the whole program in last week's lab. Now you will add a new class to the program:

   `Iterate`

2. This class will have two methods **`totalPrice`** and **`display`**. Moreover, **`Iterate`** will have an array attribute of type **`Part`** which will be set in the class's constructor.

3. **`totalPrice`** method is the one we know of. Some of you have implemented it in the Main class or in the **`Part`** class. Now it will be in the new **`Iterate`** class.

4. The **`display`** method will print the names of the computer parts in your part array. This also means that **`Part`** class will have a new attribute, **`name`**.

5. Write a new main to test your program
   a. Create an array of parts which makes up a computer
   b. Set different price policies for each part and set them.
   c. Display the parts in the array through your new class.
   d. Calculate the price of the computer through your new class.

6. Lastly, draw a complete UML class diagram of your program on a piece of paper and return to the TA.

Hint: For class diagram, you can get help from the week 2 slides. There are detailed explanation on UML notations.