

Assignment 1

Create the *TextAnalyzer* class. This class should have:

- Attribute *text* of the type String
- A constructor that sets the value of the *text* attribute to “unknown”.
- A constructor that sets the value of the *text* attribute to the value passed to the constructor as its input parameter. The value is assigned to the *text* attribute only if the input parameter is not null; otherwise, the *text* attribute gets the value “unknown” and an error message is printed to the screen.
- A method that checks if the value of its input parameter (of type String) is equal to the value of the *text* attribute and reports that through a message printed on the screen. If the text passed as the input parameter is null, an error message is printed.
- A method that appends a new text to the existing text (i.e. the content of the *text* attribute). The new text is passed to the method as its input parameter.
- A method that counts and returns the number of dots (i.e., the ‘.’ characters) in the text.
- A method that counts and returns the number of words in the text.

Create the *TestTextAnalyzer* class. In its main method create an object of the *TextAnalyzer* class with the text “Today is a nice day. I think I’ll go out.” Call the method that computes the number of words in the given text and print the computed value on the screen.

Assignment 2

Create the *Dates* class with the following elements:

- A static method that prints (on the screen) the current date and time.
- A static method that receives an object of the class *GregorianCalendar* as its input parameter and sets its date to: 01.01.2000.
- A static method that receives an object of the class *GregorianCalendar* and sets its date and time to: 31.12.1999. 23:59:59.
- A static method that receives an object of the class *GregorianCalendar* and prints to the screen its year, month, day, hour, minute and second in the following format: “DD.MM.GGGG SS:MI:SE”.
- A static method that receives as its input parameter birthdates of two persons (as objects of the *GregorianCalendar* class) and prints which person is older.

Create the *TestDates* class which calls the method of the *Dates* class for printing the current date and time on the screen.