Chapter 3 lab
Process name

Your program will be graded based on:

1. **Correctness. It must work for any type of name**
2. **Comments**
3. **Variable names**
4. **Redundancy**
5. **Use of methods**
6. **Block comment at the beginning of your code with your first, last name, date, description of your program.**
7. **Upload two java files called Name and NameDriver. Programs with only one file will receive zero points.**
8. **Identical programs will earn zero points**
9. **Must ask the user to input the name.**
10. **To find information about the String class visit :** https://docs.oracle.com/javase/7/docs/api/java/lang/String.html

How to start:

1. Read the assignment completely before writing the solution
2. Start with the Name.java class
3. Write one method at a time., and compile your code. In the driver class write few lines of code to test the method that you just wrote. This is called incremental programming.

String Manipulator

Write a program to manipulate Strings.

Store your full name into one String variable. It must include f**irst name, middle name, last name,** each separated by only one spaces If you do not have a middle name make up one
For example the string to be processed could be any of the following:
John Plain Doe

You must provide the following methods. Make sure that each method has the correct number of parameters and the correct return data type. Each method must match the following requirements. You are not allowed to use array for any part of this lab activity. None of the following methods should have any print/println/printf in them. Displaying the result should be done in the driver class.

The class Name.java should have the following methods.

1. Write a method that accepts the name as its parameter and returns the number of the characters in the name.
2. Write a method that accepts the full name as a String and returns the first name.
3. Write a method that accepts the full name as a string and returns the last name.
4. Write a method that accepts the full name as a string and returns the middle name;

5. Write a method that accepts the first name, middle name and last name as string and returns the total number of the characters in the full name.
6. Write a method that accepts the full name as a string and returns the index of the last name.

7. Write a method that accepts the first name as a string and encrypts the first name by swapping the first and last letter. For example if the first name is **John** then it will be encrypted to the from **Nohj**
8. Write a method to decrypt the name
9. Write a method that accepts the full name as a parameter and returns it in all uppercase.
10. Write a method that gets the year that the user was born, then return the age of the user.
11. Write a method that gets a double value as the life expectancy and the age of the user and returns the percentage of life left for the given person.

NameDriver.java
Provide the following methods:

1. Main method: this method calls the run method
2. run method
    a. Prompt the user the number of times they want to run this program
    b. Create a for loop
        i. Prompt the user to enter the full name
        ii. Prompt the user to enter year born'
        iii. Prompt the user to enter the life expectancy
        iv. Call the methods from the Name.java class to create the exact same out as provide. It should be 12 method calls. Displaying the result should be happening in this for loop.

Sample output: