

<Updated version>

HOMEWORK 3

Blue color parts are modified version

1. Create a class called **Dog** with an overloaded `bark()` method. This method should be overloaded based on various primitive data types, and print different types of barking, howling, etc., depending on which overloaded version is called. Write a `main()` that calls all the different versions.

```
void bark() -> print: barking!  
void bark(String a) -> print: a barking  
void bark(int n, String b) -> print: n b barking
```

2. Stacks are often used to evaluate expressions in programming languages. Make your own stack class. Using a `StringTokenizer`, split the string. And evaluate the following expressions, where '+' means "push the following letter onto the stack," and '-' means "pop the top of the stack". Make a output file("stack.txt") and write item of top and pop.
(Capture the output file.)

```
String:  
+ C + o + m + p + u + t + e - + r - + P + r + o + g - + r + a + m  
+ 1 + 6  
Output file:  
[top] C  
[top] o  
[top] m  
...  
[top] e  
<pop> e  
[top] t  
...
```

- 3. Create a class with an int field that's initialized from a constructor argument. Create two arrays of these objects, using identical initialization values for each array, and show that Arrays.equals() says that they are unequal. Add an equals() method to your class to fix the problem.**

- 4. Using a Random class(java.util.Random), creates letters randomly and determines whether they're vowels or consonants**

- 5. A *Fibonacci sequence* is the sequence of numbers 1, 1, 2, 3, 5, 8, 13, 21, 34, and so on, where each number (from the third on) is the sum of the previous two. Create a method that takes an integer as an argument and displays that many Fibonacci numbers starting from the beginning. If you run java Fibonacci 5 (where Fibonacci is the name of the class) the output will be: 1, 1, 2, 3, 5.**

Please Keep These Submission Format!!

Submission format:

Mail title:

[COMP-HW3]student id_NAME

(ex: [COMP-HW3]2016-12345_JEESOOMIN)

Compressed filename:

student id_NAME.zip(tar)

(ex: 2016-12345_JEESOOMIN)

Source code file name:

Dog.java, HW3P2.java, HW3P3.java, HW3P4.java, HW3P5.java

(Please check, source code file of each problem has correct name.)

Submit:

Compressed file: 5 source code files and report

Email: cp2016s@gmail.com

Deadline: June 01, until 23:59:59

1. Source code

Make readme file is ok.

***** If you are working on Window environment such as Visual studio, please make sure that your program can be compiled and run on linux environment!!!**

2. Report

- **Contain specific explain about code**
- **Contain screen capture file.**
- **PDF, DOC, HWP file.**

★ Caution

- **Over the deadline; after June 01, 23:59:59 – minus 20% score**
- **2days late, 0 point**
- **Do not keep the upper form – minus 20% score**

**M1522.000600 Computer Programming
(2016 Spring)**

- **Compile error question – 0 point**
- **Check a code copy using Clone Checker – related students 0 point**