Seneca College

Applied Arts & Technology

SCHOOL OF COMPUTER STUDIES

JAC444 **Live Demo Due dates: March 27 and April 03, 2018**

Code submission date: April 03, 2018

Workshop 4

Notes:

i. Each task should be presented during the lab, demo worth 50% of the workshop marks and code uploading worth the other 50%.
ii. At least one task should be demoed in March 13 lab and the other task should be demoed on March 20 (Student can choose which task they wants to give demo about first).
iii. Make sure you have all security and check measures in place, like exceptional handling, wrong data types etc.
iv. Given output structure is just for student to have a glimpse what the output can look, student are free to make the output better in any way.
v. Other inputs can be given during demo, so make sure you test your program properly.

Task 1 (a):

Suppose we have the following list of the top five male and female names of 2017:

```
List<String> topNames2017 = Arrays.asList(
        "Amelia",
        "Olivia",
        "emily",
        "Isla",
        "Ava",
        "oliver",
        "Jack",
        "Charlie",
        "harry",
        "Jacob"
);
```

With that list, you are suppose to write a code to print the items in the list in sorted order, and with the first letter in each name upper-cased. The name “harry” should be printed as “Harry” and should be printed after “Emily” and before “Isla”. Use Lambda expressions where ever possible.

Task 1 (B):

Change the code for Task 1 (A) so that it uses method references. Remember that the method references looks like Class::MethodName.

Task 1(C):

Now do Task 1 (A) and (B) using a stream and chain of stream operations.

Task 2:

The popularity ranking of baby names from years 2001 to 2010 is downloaded from www.ssa.gov/oact/babynames and stored in files named **babynameranking2001.txt**, **babynameranking2002.txt**, . . . , **babynameranking2010.txt**. Each file contains one thousand lines. Each line contains a ranking, a boy’s name, number for the boy’s name, a girl’s name, and number for the girl’s name. For example, the first two lines in the file **babynameranking2010.txt** are as follows:

```
1. Jacob 21,875 Isabella 22,731
2. Ethan 17,866 Sophia 20,477
```

So, the boy’s name Jacob and girl’s name Isabella are ranked #1 and the boy’s name Ethan and girl’s name Sophia are ranked #2. 21,875 boys are named Jacob and 22,731 girls are named Isabella.

Write a program that prompts the user to enter the year, gender, and followed by a name, and displays the ranking of the name for the year. Here is a sample run:

```
Enter the year: 2010 Enter
Enter the gender: M Enter
Enter the name: Javier Enter
Boy name Javier is ranked #190 in year 2010
Enter another inquiry? Y Enter
Enter the year: 2001 Enter
Enter the gender: F Enter
Enter the name: Emily Enter
Girl name Emily is ranked #1 in year 2001
Enter another inquiry? N Enter
```