**University of Rajshahi**

Department of Computer Science and Engineering

Part-II, Odd Semester, Lab Exam – 2020

Course: CSE 2122 (Software Development Lab)

Download the template project from the github.com

If you have ssh configured

git clone git@github.com:omarfaruqe/CSE2122.git

If you don’t have ssh configured, use http instead

git clone https://github.com/omarfaruqe/CSE2122.git

**Data File name**

students.txt

**File Contents (Initial Stage)**

Student1, Student2, Student3, Student4

Data file and java file should be in the same location.

**Task #0** (Initial Stage as in question. Check the output whether it matches with the output given here. If your output doesn’t match, please correct your program so that it produce exactly the same output given here.)

**Run #1** $java StudentList a

Loading data ...

Student1

Student2

Student3

Student4

Data Loaded.

**Run #2** $java StudentList r

Loading data ...

Student3

Data Loaded.

**Run #3** $java StudentList r

Loading data ...

Student1

Data Loaded.

**Run #4** $java StudentList c

Loading data ...

2 word(s) found

Data Loaded.

**Run #5** $java StudentList ?Student1

Loading data ...

We found it!

Data Loaded.

**Run #6** $java StudentList +Another

Loading data ...

Data Loaded.

File Contents (After running)

Student1, Student2, Student3, Student4 ,Another

You should create git branch for every step with the name of the step, work on that particular step, commit the code with appropriate commit message and finally merge your branch to the master. For better understanding, write the commit message same as the task on each steps. And check every time you change something, you didn’t break anything by going through Run #1 to Run #6 and it matches the output.

1. Update code style for better consistency.
2. Application now terminates early if the number of arguments passed into it is wrong, fix it.
3. Makes improvements to variable names
4. Refactors duplicate file read and write logic into methods
5. Replaces string literals with constants, storing those constants in a new class called Constants.java
6. Remove Temporary variables
7. Eliminates the ‘done’ control-flow variable. Adds better response for search operation.
8. Simplifies the logic behind the count operation
9. Adds handling for case when user enters invalid arguments
10. Add more comments and makes more naming improvement