**ITEC625 - Fundamentals of Computer Science**

**Session 2, 2018**

**ASSIGNMENT 1 - Worth 5%**

**Due: 11:45pm, 7th Sep., 2018**

**Starting point provided in assignment1template.zip**

Assignment 1 is designed to process students’ records. The record format and examples have been described in the comments of the StudentRecordProcess.java file.

The StudentRecordProcess class can check the format of records and responses a variety of inquiries through simple computation.

**Marking**

The methods that you need to complete are given as below, in the order we suggest you complete them. Each method is worth 12.5 marks.

1. public static boolean isRecordValid(String )；

2. public static boolean checkRedundantRecords(String[])；

3. public static int inquiryTotalMarkWithName(String[], String)；

4. public static int numberOfGoodMark(String[])；

5. public static int numberOfMarksInRange(String[], int, int)；

6. public static int inquiryTotalMarkWithID(String[], int)；

7. public static int inquiryNumberOfFail(String[])；

8. public static int inquiryTotalMarkWithRank(String[], int)；

**Useful websites and hints**

You may find the following sites useful during coding this assignment:

<https://docs.oracle.com/javase/7/docs/api/java/lang/String.html>

Useful hints:

For a record of String type, you can call record.split("\\s+"); to split the string into multiple strings with one or multiple spaces.

For example, if record = "Smith 298332 31 42 12223111 ";

The return of record.split("\\s+"); is an array of strings, i.e., String[], with the first one is "Smith", the second one is "298332", the third one is "31", ....

Integer.parseInt(String) can convert a string of digits to a number.

For example, the return of Integer.parseInt("100"); is 100 of int type.

**Penalties applicable**

Certain penalties are applicable if you don't follow instructions. They are easy to avoid by having a checklist

of things before you submit.

25% penalty for compilation error in your program. You can avoid this penalty by ensuring there is

no red cross against your project before you submit the files.

1% late penalty for every hour by which your assignment is late. [0-1) hour late: 1% penalty, [1-

2) hours late: 2% penalty and so on. [ represents inclusive and ) represents exclusive.

5% penalty for poor indentation. Most of the indentation can be taken care of by pressing

Ctrl-A followed by Ctrl-I on Windows, and Cmd-A followed by Cmd-I on MacOS.

5% penalty for poor commenting. This can mean both commenting where not necessary and not commenting where necessary. This is a slowly acquired skill and we'll be very lenient with this. Think of it like this - if your code warrant explanation, comment it.

5% penalty for accidentally (or intentionally) submitting the class files ( .class extension) instead of the source files ( .java extension).

**Submission format**

Please submit StudentRecordProcess.java under Assignment 1 submission . Make sure you don't submit StudentRecordProcess.java accidentally (or intentionally).

**Academic honesty**

We will run a plagiarism detection test on the submissions and if you are flagged for breach of academic honesty, you will land yourself in huge trouble. You will be penalized and you may even fail the unit because of this. Not to mention, it may also go on your academic record. In addition to that, the processing of these cases takes time and adds unwarranted stress.

So do yourself and me a favor by ensuring that the work you submit is your work and has no collaborative component.