**School of Computer Science**
COMP30670: Software Engineering
Semester II

**Assignment 1**
On: 05/02/2018
Due:

**Q1:** _____ (**100points**)

You should prepare the Software Requirements Specification (SRS) for the following project outline:

The project is an automated assignment checker for a typical Computer Science under-graduate/masters course. A common task for a Computer Science professor is setting assignments for the student needs to solve. The assignments must be completed by a given date, and the solutions need to be checked for correctness. The solution can either be in the form of code which must be executed and the answer checked, or in the form of a text file in a specified format which is checked against the provided solution.

The system should be able to

- work with CSMoodle to handle student information (student ID number, etc)
- Prompt the user for a github repository URI
- Clone a branch from this online git repository
- Prompt the student for the language (Java, Python or C/C++)
- Compile and execute it with given command line options
- Test the program with multiple input arguments
- After checking the solutions the marks are assigned and uploaded to CSmoodle

In addition, the system should have reasonable immunity to attack, should be able to handle malformed code, should be performant (provide a result in a reasonable time), and reliable (it can't crash or students might lose marks).