**Department of Computing**

**Bachelor of Information and Communication Technologies Graduate Diploma of Information and Communication Technologies**

**BCPR280 Software Engineering 2**

**Assignment Two**

# Programming Assignment

**Semester Two 2018**

Due date: Friday 2 November 2018

Time: 5.00pm

Student Name/ID ................................................................................................................



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Submissions received late will be subject to a penalty of 10% of the student’s mark per working day.

This assignment is worth 25% of the total marks for BCPR280.

This paper has two (2) pages including the cover sheet.

*This is individual assessment.*

*Please submit ALL DOCUMENTS AND CODE as a single .zip file to the Moodle drop box by the deadline above.*

*This assessment will be marked out of 100 and is worth 25% of the final course grade.*

**ALL THE ASSESSMENT MARKS ARE FOR COMPLETING THESE TASKS**

* Write a program that calculates the correlation of two arrays of numbers

[20 marks]

* Adapt / extend the first program to calculate the regression of two arrays of numbers.

[20 Marks, but deductions for DUPLICATE CODE]

* Provide a user interface with Vuejs

[10 marks]

* Provide a user interface with Reactjs

[10 marks]

* Provide a user interface with Nodejs

[10 marks]

* Enhance the user interface with Bootstrap css

[10 marks]

* Create a command line application for Nodejs that reads and write to file

[10 marks]

* Create a RESTful web service for Nodejs that return JSON data

[10 marks]

* Provide Jasminejs unit tests

[10 marks]

* Provide Cucumberjs unit tests

[10 marks]

NOTE: There are 120 marks of tasks. Pick up to 100 marks from the list.

**There are NIL marks for the following, but it will be useful for the final 50% assessment.**

1. A plan for the work for each iteration
2. A design level class diagram for each task.
3. A plan for how the program feature you are working on will work.
4. A test plan and a test report
5. Proof the program works and passes standardJS validation
6. Error logs
7. Project Summary Sheets and Process Improvement Proposals