

**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 .....

Ara and its faculty members reserve the right to use electronic means to detect and help prevent plagiarism. Students agree that when submitting this assignment, it may be subject to submission for textual similarity review to Turnitin.com.

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