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Department of Computing

Bachelor of Information and Communication Technologies

Graduate Diploma of Information and Communication Technologies

BCSE 101 Software Engineering

Assignment THREE

**Programming Assignment**

Semester Two 2018

Due date: Friday 9 November 2018

Time: 5.00pm

Student Name/ID



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This assignment is worth 25% of the total marks for BCSE101.

This paper has () pages including the cover sheet.

TASKS

The goal for this assignment is to extend the previous assignment so that it adds results to games and provides a report of team standings.

**CODE COMPARISON TO STANDARDS [10 MARKS]**

1. **Put YOUR JavaScript code through** [**https://standardjs.com/demo.html**](https://standardjs.com/demo.html)

What generates a warning?

What changes are needed to remove the warnings?

Document 5 significant differences in the style of your answer style from what standardjs requires.

Include a screen shot of your original code and the fixed code.

NOTES:

You will need to add the following comments at the top each file to configure the warnings

/\* globals View, Team, Game\*/

*The exact globals to use varies with the file – see the model answer*

You will also need to add the following to the top line of code to stop it complaining that the class was defined but never used

// eslint-disable-line no-unused-vars

(5 marks)

1. **Put YOUR python code through the PyCharm Code | Inspect Code tool.**

What generates a warning?

What changes are needed to remove the warnings?

Access the Code inspection from the Code menu.

(You might be able to resolve problems with the Code | Reformat Code tool.)

Document 5 significant differences in the style of your answer from what PyCharm requires.

Include a screen shot of your original code and the fixed code.

(5 marks)

**COMPARISONS WITH MODEL ANSWERS [10 marks]**

1. **Compare your JavaScript code with the model answer.**

Document 5 significant differences in your coding approach to that of the model answer.

Include a screen shot of your original code and the model answer code.

Write an explanation of what is the better code and why?

[5 marks]

1. **Compare your Python code with the model answer.**

Document 5 significant differences in your coding approach to that of the model answer.

Include a screen shot of your original code and the model answer code.

Write an explanation of what is the better code and why?

[5 marks]

**REQUIREMENTS ANALYSIS [20 MARKS]**

You have JSON data of the results for each game: the final scores of the home and away team and the number of tries scored by each team.

Your goal is to display the standings in the two competitions

1. Draw a ***UML*** ***dynamic diagram*** showing how this information will be read, processed and stored in Game and Team objects

[10 marks]

1. Draw an ***analysis level class diagram*** of what new attributes and methods are needed to support recording results.
   * In the diagram show only classes (boxes with names), relationships (lines), multiplicities (0s, 12, and \*s) and new methods (names only in the bottom of the class boxes).

[10 marks]

**IMPLEMENTATION [60 MARKS]**

**Amended Fixtures [20 marks]**

See <http://www.mitre10cup.co.nz/Fixtures/Standings>

1. In JavaScript, read the JSON data and add it to Games. Produce an amended **getGames** method that includes results.

[10 marks]

1. In Python, read the JSON data and add it to Games. Produce an amended **get\_games** method that includes results.

[10 marks]

**Standings [40 marks]**

See <http://www.mitre10cup.co.nz/Fixtures/Standings>

1. In JavaScript, use the Games data to calculate the progress of each Team. Produce a new **getStandings** method that displays each team’s progress and points at the end of regular round play.

[20 marks]

1. In Python, use the games data to calculate the progress of each Team. Produce a new **get\_standings** method that displays each team’s progress and points at the end of regular round play.

[20 marks]