

## Assessment Cover Sheet 2019-20

Module Code:	Module Title:	Module Team:
CS3S665	Game Engine Design	<a href="#">Gaius Mulley</a>
Assessment Title:		Assessment No.:
Enhancing pge and implementing frozen bubble		2
Date Set:	Submission Date:	Return Date:
23-Sep-2019 23:55	20-Mar-2020 23:55	15-Apr-2020 23:55

**IT IS YOUR RESPONSIBILITY TO KEEP RECORDS OF ALL WORK SUBMITTED.**

### Marking and Assessment

This assignment will be marked out of **100%**.

This assignment contributes to **50%** of the total module marks.

### Learning Outcomes to be assessed

As specified in the validated module descriptor <https://icis.southwales.ac.uk>

- 1) To critically evaluate the techniques that underpin modern game engines
- 2) To be able to justify techniques used in the design, development and evaluation of game engine and gameplay code

*Awarded mark is only provisional: subject to change and / or confirmation by the Assessment Board.*

## Assessment Task

The aim of this coursework is to extend the PGE and Python interface API code. You should start by incorporating per object inelastic collisions. You can extend PGE in any way you wish and then you should implement a simple 2D game which uses your changes. The frozen bubble game is an idea but you can choose your own game if you prefer.

You can obtain pge from github via:

```
git clone https://github.com/gaiusm/pge
```

Once you have implemented these changes you should consider making any other improvements based on your own research.

For each improvement you make you should generate simple Python test cases to demonstrate your code is working.

Your report must consist of a program listing, a line by commentary of any changes/improvement that you make and appropriate screen shots.

# Marking Scheme

	<b>Fail (0/29)</b>	<b>Narrow Fail (30/39)</b>	<b>3rd Class / Pass (40/49)</b>	<b>Lower 2nd Class / Pass (50/59)</b>	<b>Upper 2nd Class / Merit (60/69)</b>	<b>1st Class / (70/79)</b>
Inelastic collisions and per object gravity (30%)	<input type="checkbox"/> Very poor Inelastic collisions and per object gravity	<input type="checkbox"/> Poor Inelastic collisions and per object gravity	<input type="checkbox"/> Satisfactory Inelastic collisions and per object gravity. A single feature was changed. Some obvious code weaknesses exist, but the overall direction was sensible	<input type="checkbox"/> Good Inelastic collisions and per object gravity. Sensible changes attempted, code contains some errors but is along the correct path	<input type="checkbox"/> Very good Inelastic collisions and per object gravity. Interesting and effective changes made	<input type="checkbox"/> Excellent Inelastic collisions and per object gravity. Code is independent and crafted
Any other improvements (30%)	<input type="checkbox"/> Very poor Any other improvements	<input type="checkbox"/> Poor Any other improvements	<input type="checkbox"/> Satisfactory Any other improvements	<input type="checkbox"/> Good Any other improvements	<input type="checkbox"/> Very good Any other improvements	<input type="checkbox"/> Excellent Any other improvements. amount of independent thought
Test programs (20%)	<input type="checkbox"/> Very poor Test programs	<input type="checkbox"/> Poor Test programs	<input type="checkbox"/> Satisfactory Test programs	<input type="checkbox"/> Good Test programs	<input type="checkbox"/> Very good Test programs	<input type="checkbox"/> Excellent Test programs. Very thorough
Documentation/Commentary (20%)	<input type="checkbox"/> Very poor Documentation/Commentary	<input type="checkbox"/> Poor Documentation/Commentary	<input type="checkbox"/> Satisfactory Documentation/Commentary. The commentary addresses some of the areas with errors and omissions	<input type="checkbox"/> Good Documentation/Commentary. The commentary addresses the majority of areas with a few errors or omissions	<input type="checkbox"/> Very good Documentation/Commentary. The commentary addresses the majority of areas with no major errors or omissions	<input type="checkbox"/> Excellent Documentation/Commentary. The commentary shows a high amount of independent thought and all areas are covered
Global:						