Assessment Submission Coversheet:  
Complex Game Systems

Task 1 – Write a Modular Complex System Brief

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| **Course Stream:** | 10702NAT – Advanced Diploma of Professional Game Development |
| **Assessment Name:** | Complex Game Systems |
| **Units Covered:** | PGDGSP6006–Develop complex systems for real time applications |
| **Teacher/s:** | Jesse James Donlevy |
| **Due Date:** | 09/05/2023 |
| **Date of Submission:** | *Will be automatically recorded on Canvas* |
| **Assessment Work Location** | Canvas |

*For more information on this task, please click on the* [***Subject and Assessment Guide***](https://aie.instructure.com/courses/1027/files/723198?wrap=1) *link in the course* ***Game Programming Year 2*** *under the subject* ***Complex Game Systems*** *on* [*https://aie.instructure.com*](https://aie.instructure.com) *and read the* ***2023 Subject & Assessment Guide – Complex Game Systems***

**Naming Convention**:

* *Yourname*\_CGS\_Brief.pdf

**Declaration**

By submitting this work under my name, I declare that my submission is my own work with respect to plagiarism and does not violate any copyright laws. I have retained a copy of this assessment material that I can produce if requested.

Tick to acknowledge you have read and agree with this declaration.

Name: Jack Aylward Date: 9/5/2023

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Task 1 – Write a Modular Complex System Brief

**Work Submitted:***Tick to acknowledge you have submitted this part of the assessment.*

* Write a Brief for your Modular Complex System:
* Talked about the different aspects of the system such as purpose, libraries, mathematics, algorithms, modularity, and integration
  + The purpose of the system:

Purpose is to create a dungeon crawler starter pack that uses procedural generation to create a unique dungeon every runtime.

* + Libraries it relies on:
  + Uses inbuilt unity libraries such as system.collections, system.linq, and unity.engine
  + The mathematical operations to be used:
  + Uses variation of both basic math functions and advanced math functions to allow the algorithm to work.
  + The advanced algorithms to be implemented:
  + Uses binary spacing partitioning algorithm to procedurally generate a dungeon in a set space that follow specific parameters/
  + How it will be made modular:
  + Will allow the user to customize many variables and aspects to create a unique project utilizing the complex system.
  + How to integrate your system with a new or existing application
  + Uses prefabs to allow the user to easily drag and drop and change and can easily change variables in the inspector and swap out models / animations in the prefabs.

Name: Jack Aylward Date: 9/5/2023