2018-19 COMP120 Contract

As part of your contract with the publisher, *Ninja Nyan Play Lab*, you will be developing original intellectual property in the form of a codebase and tools to support the development of a dungeon crawler. To this end, they are requesting the following:

Contract #1 - Dungeon Tile Generator

A tool that will generate textures for various different types of tile that could be conceivable to have in a dungeon. There needs to be an allowance to specify variations through a set of attiributes (e.g., soil-dry, wet,charred; foliage-spring,autumn,summer,winter; etc.).

Contract #2 - Dungeon Map Generator

A tool that will take a dungeon size and other attributues and generate a tile map to represent a dungeon in a game. A tile set will be fed into this tool and it is imagined that any or all of these tiles could be used to generate the map. There should be clearly identifiable features of the dungeon such as pitfalls, shrines, wells, water, pools, and so on; befitting of a historical-fantasy setting.

Contract #3 - Dungeon Entity Generator

Various creatures will occupy the dungeon, and so the ability to create many different types of items and enemies using various components is desired. These units should be saved to a new png file for use in the game.

Contract #4 - Dungeon Entity Reskinning

To enable better re-use of assets, a tool which reskins in-game items and monsters devised by the dugeon entity. You will have to remove a colour and then add a new colours. There are four types (representing qualities) represented by a set of colours. For example: red, green, blue and yellow. Each unit of these teams will have to be saved in a new png file.

Contract #5 - Colour Blindness UI Analysis Tool

1-in-12 men and 1-in-200 women in the world suffer some form of colour blindness. Your studio lead has asked you to create a tool which takes in a screenshot of your game and then displays the image as if viewed by someone with a form of colour blindess. They would like you to save an image to file for every type of colour blindess so that the UI designer can adjust the colours of the in game UI.