Assessment 1 – Outcome 1

You have been hired as an intern by Maximized Games, a small independent game developer. During your internship you will be required to prove your knowledge and skills in game design and development, with a view to gaining full time employment at the end of the internship.

Your first task is to demonstrate your knowledge of computer games by reviewing and rating two existing games.

You must review at least **two** different computer games.

|  |  |
| --- | --- |
| Title:Minecraft | Publisher:Mojang |
| Genre:Sandbox | Target Audience:E10, no real violence |
| Design Element 1:  Character design  In Minecraft you can select between two default skins but you can also import your skins from the web or ones you have made. The skin you use doesn’t effect gameplay but when playing with other people it adds to your in game identity  7/10 customizability, you are limited to a certain amount of pixels;32px tall, 16px wide and with all the parts the file is 64px by 32px | |
| Design Element 2:  Level environment  The world is generated and terrain is good for it being made of 1m cubes, you can collect almost everything that naturally generates and craft using gathered materials, the music is simple yet brilliant.    Mice on venus - one of the oldest songs that’s in the game | |
| Design Element 3:  Game play  The Physics for players and mobs(mobiles – animals and monsters) is pretty normal but a lot of the blocks are not effected by gravity and the players first objective is to break trees with their bare hands so it’s not super accurate to physics but its fun.  There are 2 main boss’s:  The first one is The ender dragon and acts as a sort of end to the game, you get credits but you get to continue playing, The next is the Wither which is summoned by the player placing soul sand and wither skulls in a certain arrangement and has a valuable drop that is needed to craft a powerful block that can give you an effect to benefit you.  So to sum it up have fun and when you beat a boss keep playing and having fun  “No one can tell you what you can or cannot do” –From the mobile versions first trailer in 2011 from a guy on the loo, this quote is still true to this day  9.9/10 freedom to do whatever you want, 0.1 is to the features that haven’t been added yet. | |

|  |  |
| --- | --- |
| Title:Terraria | Publisher:Re –Logic, 505 games |
| Genre:Sandbox | Target Audience:12 that’s fair because it’s not detailed violence and doesn’t include bad words or adult topics |
| Design Element 1:  The environment design  The music is great and works with the game, the surface has trees and the underground is more exiting. | |
| Design Element 2:  Gameplay  You are free to do what you want so you don’t have to but you can go fight bosses if you want to.  Intended for single player, still works multiplayer. | |
| Design Element 3:  The user interface  I don’t like the UI because when I start playing I have to press a random key(not random, just can’t remember it) to get the UI and the UI is small and at the sides of the screen, UI is required to play the game so it’s sad that it’s not great for me. | |

Assessment 2 – Outcome 2

Maximized Games develops new games for clients, but are extending their portfolio by designing and developing its own Intellectual Property. All staff have been asked to come up with ideas for new games, and you, as the new intern, are included.

Your boss requires you to come up with two new game ideas. One of these ideas should be pitched at the senior development team, who develop high-end games, and the other idea should be for a simpler game that you will go on to develop yourself.

Proposals for new games are presented in a standardised template, and pitched to an audience of peers who will review each idea and make recommendations. Successful pitches are then taken to a more detailed design stage.

Produce **two** proposals for new computer games. One must be for a game of similar level to a contemporary commercial game, and one must be for a game that you could feasibly develop as part of your course of study.

At least **five** features of the proposed games must be exemplified by using images from existing games.

Once complete, you must pitch **one** of the proposals to an audience and discuss the game features. The audience may comprise learners, tutors, or other suitable members, and must be observed by an assessor. Feedback from the audience must be noted. Based on the feedback from the pitch you should propose at least **one** change to your game.

|  |  |  |
| --- | --- | --- |
| Title: | Genre: | Theme: |
| Platform: | Controls: | Target Audience: |
| Narrative/objective design: | | |
| Character Design: | | |
| Level/environment design | | |
| Game mechanics/gameplay design: | | |
| User Interface: | | |
| Proposed changes: | | |

|  |  |  |
| --- | --- | --- |
| Title: | Genre: | Theme: |
| Platform: | Controls: | Target Audience: |
| Narrative/objective design: | | |
| Character Design: | | |
| Level/environment design | | |
| Game mechanics/gameplay design: | | |
| User Interface: | | |
| Proposed changes: | | |

Assessment 3 – Outcome 3

Assessment instructions

Well done, your proposal to the Maximized Games team has been successful. You are now required to produce a detailed design for the new game, along with any changes that were agreed after your pitch.

Maximized Games has a set standard for Game Design Documents, which must be met. The details of this are provided below.

A design document must be produced, describing a game you plan to make. This design document must be based on a proposal created for assessment 2, and must extend the description of the game.

Provide detailed descriptions of each of the five design elements:

* Narrative/objective design
* Character design
* Level/environment design
* Game mechanics/gameplay design
* User interface design

Produce at least **five** illustrations (using traditional or digital media) that support your descriptions and demonstrate some of the features of your game.

Produce a list of media assets that are required to produce the game.

Produce a schedule for the production of your game, describing all major tasks and the expected timescales for completion of the tasks.

Game Design Document:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Detailed description of narrative/objective design | The player character wakes up and realises that they are not in the real world, They have to escape. There isn’t backstory we don’t need to know who put them in the Virtual Land. The object of the game is reaching the end and leaving the Land. | | | |
| Detailed description of Character design | Has a big hole in the middle of their head, They like saying “no thoughts, head empty”. Wearing a light blue top, big maroon-ish colored shoes, Cyan-grayish color tophat. Skin is tan-orange but has purple head. | | | |
| Detailed description of level / environment design | The game takes place in cities and towns. You can hear the crowds and construction people working as ambience in the game. The sky is tinted gray due to pollution.  There are going to be 8 levels. | | | |
| Detailed description of game mechanics / gameplay design | Movement - The character can move left, right, jump, and climb ladders  Scoring – Score increases when you collect tokens  Enemies – enemies can take away lives unless you have powered up  Collecting tokens – walking into a token will pick it up  Powerup – walking into a powerup will enable the powerup for 15 seconds, invulnerability is granted along with a speed boost  Keys – to open a door you need a key that is the same colour as the door | | | |
| Detailed description of user interface design | There is Score caption at the top and inventory at the bottom to show keys you have and a thing at the side that shows whether you have the powerup enabled or not. | | | |
| At least five drawings (traditional or digital media) supporting the chosen design elements | | | | |
| Drawing 1 |  | | | |
| Drawing 2 |  | | | |
| Drawing 3 |  | | | |
| Drawing 4  This is the token |  | | | |
| Drawing 5 |  | | | |
| Media Assets | | | | |
| Name | | Type | Description | |
| Player | | Animation | When moving left or right you no longer see the hole in their head but you get to see their arms flail about. | |
| Score | | Text | printf( “Score: %d”, score);  Where the variable called score is the score. | |
| Game Over | | Graphic | Bold Red coloured text saying “Game Over” | |
| Background music | | audio | Simple tune that plays in the background while playing | |
| city | | graphic | Background graphic | |
| token | | graphic | score+=10;  score is increased by 10 when collected | |
| Enemy1 | | graphic | Removes life and returns you to start | |
| Enemy2 | | graphic | Bounces you upwards when collision occurs | |
| Pickup sound | | audio |  | |
| cobweb | | graphic |  | |
|  | |  |  | |
| Production Schedule | | | | |
| Task | | | | Time required |
| Create/source assets | | | | |
| Player character | | | | 45 minutes |
| Game over screen | | | | 5minutes |
| City | | | | 15 minutes |
| Music development | | | | 1 hour |
|  | | | |  |
|  | | | |  |
|  | | | |  |
|  | | | |  |
| Programming | | | | |
| Load and display environment and graphics | | | | 1 hour |
| Character movement left and right | | | | 1 hour |
| Character movement jumping | | | | 45 mins |
| Character moving on ladder | | | | 45 mins |
| Scoring system | | | | 10 mins |
| Enemy movement | | | | 1 hour |
| No more lives | | | | 10 mins |
| Fullscreen button | | | | 10mins |
| Testing and debugging | | | | 2 hours |

Assessment 4 – Outcome 1

|  |  |  |  |
| --- | --- | --- | --- |
| |  | | --- | | Identify at least **two** items of relevant legislation covering copyright infringement: | | Digital economy act 2017  The copyright, design and patents act 1988 | |  | |
| Describe at least **three** ways in which a developer might infringe copyright:  If the media has been pirated from somewhere else  If the media has been stolen  If the media has been freebooted from somewhere |
| Explain at least **two** implications from infringement for the developer:  Infringement could lead to a fine price that goes up to £250000  If the infringement is serious enough it results in inprisonment |
| Describe at least **two** legitimate sources of copyright-free media:  https://freesound.org/  https://search.creativecommons.org/ |

Assessment 5 – Outcome 1

You must plan the production of media assets for a game. Refer to the game’s design document to determine what media assets are required.

Make a list of the media assets you intend to produce. You must produce a **minimum of four** different types of assets from the following list:

♦ 2D image

♦ 2D animation

♦ 3D object

♦ 3D animation

♦ Sound effect

♦ Music

Use a table to record the list of assets you will produce.

|  |  |
| --- | --- |
| Asset | Type |
| Life sprite | 2d image |
| Main character | 2d animation |
| Pickup sound | Sound effect |
| Rain chimes | music |

Identify at least **two** pieces of software that you intend to use in the production of your media assets. Discuss some of the features of the software that you may use.

|  |  |
| --- | --- |
| Software: paint.net | Software: game maker |
| Features: drawing tools, and able to save in different formats such as png and jpeg.  I plan to use paint.net to create my background graphics.  I made the city background by using the line tool and colors and fill tool. | Features: sprites, objects, sounds, paths, backgrounds, rooms  I plan to use game maker to make my sprites, animations, import my sounds, paths, import background, and make rooms.  I made the main character by making a sprite for the front, a sprite from the right with an animation and a mirror of the right sprite to make a left sprite. I made the animation by making a sprite with the line tool, circle tool, rectangle tool, and fill tool, Then copying the dsprite and changing it to make the animation. |

Assessment 6 – Outcome 2

Assessment instructions

Your boss at Maximized Games now requires you to produce at least four of the planned assets for the game.

You will have access to a range of suitable software and resources to achieve this task.

You must ensure that you stick to the plan and produce assets that meet the requirements of the design document.

Maximized Games keeps records of all assets produced, and these are entered into a database so that they can be tracked and reused in future projects. At this stage you are only required to produce and log the assets.

You must produce a **minimum of four** of the assets required for your game. This may involve creating the assets yourself, modifying existing assets, or obtaining suitable assets from legitimate sources.

Provide a list of the assets you have produced, which should match the list produced for the previous assessment.

Use the proforma below to record your assets, and submit it along with the completed files. Files should be named appropriately, using descriptive names.

|  |  |  |
| --- | --- | --- |
| Filename | Description | Source |
| character.png | The main character facing forward | C:\Users\BCampbell2\OneDrive - Glow Scotland\Games Dev\assessment 6 assets\  Made in paint.net |
| ArchLinux.png | Pickup collectable | C:\Users\BCampbell2\OneDrive - Glow Scotland\Games Dev\assessment 6 assets\  Made in paint.net |
| rain\_chimes.mp3 | Background music | C:\Users\BCampbell2\OneDrive - Glow Scotland\Games Dev\assessment 6 assets\  Made with |
| pickup.mp3 | Sound that plays when you pickup something like the collectable. | C:\Users\BCampbell2\OneDrive - Glow Scotland\Games Dev\assessment 6 assets\  From freesound |

Assessment 7 – Outcome 1

Assessment instructions

Now that your game has been fully designed and the assets made, your boss at Maximized Games requires you to produce a working game.

You may have a choice of tools at your disposal, or your boss may direct you to use specific tools for the development of the game. Maximized Games is keen for all employees to gain skills in programming, so you are required to use computer code in the development of your game.

The game should meet the requirements of the game design document, and any deviation from the plan must be explained.

You must produce a working computer game based on a game design document. The game design document may be provided by your assessor, or you may have produced your own.

The game must be produced using coding. A suitable game development tool or programming environment must be used.

You must make appropriate use of variables, common code constructs and internal documentation/comments.

Once complete, you must demonstrate your game to your assessor and provide a code listing. You must also provide your assessor with a list of the media assets included in your game.

|  |  |  |
| --- | --- | --- |
| Have you demonstrated your game to your teacher? | | Y/N |
| Have you made appropriate use of variables, common code constructs and internal documentation/comments? | | Y/N |
| Have you provided your code listing | | Y/N |
| List of media assets added to the game: | | |
| Object | Type | Filename |
| obj\_plat | sprite | spr\_plat |
| obj\_fake\_plat | sprite | spr\_plat |
| obj\_player | sprite | spr\_player |
| obj\_ladder | sprite | spr\_ladder |
| obj\_sus | GML | obj\_sus.c |
| obj\_slime\_small | GML | obj\_slime\_small.c |
| obj\_cobweb | sprite | spr\_cobweb |
| obj\_poggers | GML | obj\_poggers.c |
| Good\_Game | sprite | Good\_game |
| quit | sprite | quit |
| restart | sprite | restart |
| Gentoo | sprite | Gentoo |
| LFS | sprite | LFS |
| direction | sprite | direction |
| obj\_pill | sprite | spr\_pill |

Assessment 8 – Outcome 2

Assessment Instructions

At Maximized Games, quality assurance is very important. All games released by the company must be tested and approved.

Your next task is to develop a testing plan for your game. First you must investigate different testing strategies, then plan the tests to be carried out. Your boss may suggest things to test or ask you to extend your testing if it does not meet the company’s stringent testing policy.

You must describe at least **three** different testing strategies appropriate to computer games testing, including the strategy that you intend to use with your own game.

You must also devise a set of tests for your own game, covering all of the main features and functions. The tests must be carried out and the results logged, along with any rectifications that were required.

Testing strategies:

|  |
| --- |
| Strategy 1 –  Play testing  Play the game as a player to gather what works and also find errors/bugs. |
| Strategy 2 –  Functionality testing  This tests individual components or ‘functions’ of a game or program. Usually a list of functions is drawn up and each function is tested one after the other. |
| Strategy 3 –  Prototyping  A paper prototype is a good example of a quick and inexpensive method that can be used to test the game without having to spend time/money on developing the game. Wireframe prototypes help with the layout of elements. |

Record of testing:

|  |  |  |  |
| --- | --- | --- | --- |
| Details of test | Expected result | Actual result | Amendments |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

Player Movement:

|  |  |  |  |
| --- | --- | --- | --- |
| Details of test | Expected result | Actual result | Amendments |
| Background music | Background music playing | No background music playing |  |
| Space bar pressed | Player jumps | Player jumps |  |
| A key pressed | Player moves left | Player moves left |  |
| D key pressed | Player moves right | Player moves right |  |
| Space bar pressed while on ladder | Player climbs ladder | Player climbs ladder |  |
| Shift key pressed while on ladder | Player goes down ladder | Player goes down ladder |  |
| Colliding with collectable | Sound played and the instance disappears | Sound not played, all instances disappear |  |

Object movement:

|  |  |  |  |
| --- | --- | --- | --- |
| Details of test | Expected result | Actual result | Amendments |
| Obj\_sus is observed | Obj\_sus follows a path | Goes South-West and never returns |  |
| Obj\_slime\_small is observed | Obj\_slime\_small follows a path | Goes South-West and never returns |  |
|  |  |  |  |
|  |  |  |  |

This table should be extended as required.

Assessment 9 – Outcome 3

Assessment Instructions

Your final tasks of your internship at Maximized Games is to evaluate and review your game.

Evaluation checks that the game matches the original design, and the review ensures that you understand the strengths and weaknesses of the game.

Your boss knows that not all games match their original design one-hundred percent, but you are expected to explain any differences.

You must evaluate your final game by comparing it with the game design document. Your game may not match exactly, so justify any differences between the game and the document.

You may use the following proforma to help write your response. The left column should be completed with the information from the original game design document, and the right column is for your comments on the similarities/differences and your justification.

Matching the game design document:

|  |  |
| --- | --- |
| Original design | Comments on the final game and justification for changes |
| Narrative/objective design |  |
| Character design |  |
| Level/environment design |  |
| Game mechanics/gameplay design |  |
| User interface design |  |

Assessment 10 – Outcome 3

Assessment Instructions

You must produce a review of a computer game, comparing it to another game of the same genre, and including a rating system.

You may compare your own game to that of another learner or a commercial game.

The review must include evaluations of at least **four** of the following game design elements:

♦ Narrative/objective design

♦ Character design

♦ Level/environment design

♦ Game mechanics/gameplay design

♦ User interface design

The review must also include a rating system that rates at least **three** aspects of each game.

|  |  |
| --- | --- |
| Titles of both games |  |
| Reviewer |  |
| Date of review |  |
| Narrative/objective: | |
| Character design: | |
| Games mechanics: | |
| User interface: | |
| Ratings | |
| Game 1 - | Game 2 - |
| Graphics: | Graphics: |
| Sounds: | Sounds: |
| Gameplay: | Gameplay: |