COMP706: ASSIGNMENT TWO OVERVIEW

DESIGN, CREATE, IMPLEMENT AND PRESENT A GAME

Weighting 40% of Final Grade

Learning Outcomes 2, 3 and 4

Date Refer to the Course Timetable for Assessment Due Dates

Part One: Game Design (pitch), Due Week 10

Part Two: Design, Create, Implement and Demonstrate the Game, Due Week 15/16

Part Three: Game Design Analysis Presentation, Due same time as Part Two.

Your Task

- Design, Create and Implement a game using the Godot Engine
- Present the progress of the game in a stand-up meeting
- Present the game and complete documentation
- Refer to the section ***Your Task*** for further details

Deliverables

- There are **TWO** parts to the assignment
    - **Part One: Stand-Up Meeting (pitch)**
    - **Part Two: Design, Create, Implement and Demonstrate the Game**
    - **Part Three: Game Design Analysis Presentation**
- Refer to the section ***Deliverables*** for further details

Instructions

- Read the Powerpoint on **Academic Miss-Conduct and Plagiarism**
- Revise over the assignment and be clear on what you need to submit
- Download the necessary resources needed for the assignment
- Assignments are to be submitted using Unreal Engine. Any work that is submitted that does not use the indicated resources shall not be marked
- **Demonstrate the assignment** to the tutor during the 2 Hour Week Session
- Submit any documentation as requested

Marking Schedule

- Refer to the section *Marking Schedule* for details

Submission

- As specified by the Tutor
- Assignment **to be Demonstrated** to the tutor during the 2 Hour Week Session

Summary

Tasks relate to concepts and exercises covered in the lectures, laboratories and discussion questions

PART ONE: Stand-Up Meeting	15 Marks
PART TWO: Design, Create, Implement and Present a Game	75 Marks
PART THREE: Game Design Analysis Presentation	10 Marks
Final Marks	100 Marks

ASSIGNMENT COVER SHEET

WINTEC – CENTRE FOR BUSINESS, INFORMATION TECHNOLOGY AND ENTERPRISE

ASSIGNMENT COVER SHEET

Assignment Title	**Assignment 2: Design, Create, Implement and Present a Game**	
Module Code	**COMP706/2021**	
Module Title	**Game Development**	
Due Date		
Date		
Tutor Name		
Student Name(s) & ID(s) **Please print clearly**	**Name (s)**	**ID (s)**

Important
Submission of work which is not your own is treated as academic misconduct and may result in exclusion from Waikato Institute of Technology. Penalties are identified in the Institute's Academic Regulations (a copy is available at the Library).

I certify that I have read the Academic Miss-Conduct and Plagiarism and that this is all my own work, except for those parts identified for which references have been made.

Signature_____ Print name: _____

MARKING SCHEDULE (WORTH 40%)

ASSESSMENT	Design, Create, Implement and Present a Game		
DUE DATE	Refer to Moodle Website		
ASSIGNMENT TYPE	Group Assignment		
WEIGHTING	40% of Final Grade, out of 100 marks		
LEARNING OBJECTIVES	2, 3 and 4		
STUDENT NAME, ID		**GAME**	

Section	Available Marks	Student Marks
PART ONE: STAND-UP MEETING (PITCH)		
• Presentation		
○ Game Design	15	
○ Analysis of game elements and features	5	
SUB TOTAL	**20**	
PART TWO: DESIGN, CREATE, AND IMPLEMENT A GAME		
• Creation of Game (4 Levels) - additional 2 levels with each member		
○ Creation of Game World (s)	7	
○ Specific uses of Scenes/Screens		
▪ Loading Scene	3	
▪ Introduction Scene	4	
▪ Main Menu Scene	4	
▪ Boss (Final Level) Scene	6	
▪ End Game Scene	4	
▪ Rewards/Achievement Scene	5	
▪ About Scene	3	
○ Sufficient usage of features		
▪ Game elements to promote game play according to theory	5	
▪ Use of rewards systems	4	
▪ Animations, graphics, sound, music (marked out of 5 in using assets, marked out of 15 if custom made)	15	
▪ Cinematic techniques to promote game play	5	
▪ Objectives, instructions, and feedback to promote game play	5	
SUB TOTAL	**70**	
PART THREE: GAME DESIGN ANALYSIS PRESENTATION		
• Game Design Analysis (presentation)		
○ Tracked changes	3	
○ Analysis of game elements according to theory	7	
SUB TOTAL	**10**	
FINAL TOTAL	**100**	
EXTRA CREDIT (ADDITIONAL)		
• Deployment to mobile platform or, **done in Unity or alternative platform**	10	

ASSIGNMENT TWO: DESIGN, CREATE, IMPLEMENT AND PRESENT A GAME

DESIGN, CREATE IMPLEMENT AND PRESENT A GAME USING GODOT — LO 2, 3 AND 4

INTRODUCTION

The assessment shall be done in **groups of 2 or more**. The base game requirements for a group of 2 is 4 levels however, for each **additional member increases the number of levels by 2**. If you choose to do the game **individually then you complete the base requirements for a group of 2** – discuss situations with the tutor if you need to join a group.

The aim of component is to create a complete game based on sound game theory principles using the Godot Game Engine. We design games based on theory to avoid ad-hoc choices and decisions. Elements added to games should be rationalized and reviewed before acceptance to ensure game development and progress is kept on track. We evaluate game elements using theories and techniques discussed during the module. These skills are essential for game development.

CONCEPTUAL THINKING – THE IDEAL DEVELOPER

What makes an ideal game developer? It is the ability to develop games with-in a development team and work with associates for different diciplines. What makes a great game developer is the vision to understand the strengths and weaknesses of a development team and use those to enchance the productivity and delivery whilst applying gaming concepts and theory. This assignment provides the necessary skills to design, engage, program and develop a game for Godot.

PART ONE: STAND-UP MEETING (PITCH) — LO 2, 3 AND 4

DESCRIPTIONS AND DETAILS

Description of game

The description of the game should cover elements in the game design document

- Storyline
- Main Character
- Game play scripting and storyboards to explain game play
- Drawings of level and environment designs
- Art, sound and music resources
- HUD layout and explanation
- Game screen/scene navigation diagrams

Analysis of game elements and features

You will need to evaluate the game features and elements chosen for the game as follows:

- Elements and features designed in the game that support Baron's cognitive flow and Lazaro
    - Describe the design features for the game that support Baron's cognitive flow
    - Evaluate the games current design state (features and elements proposed) according to Lazaro's ranking system and justify whether the game meets expectations
- Reward systems used in game

- Explain the reward features designed for the game and evaluate each according to the classification matrix

Demonstration of current game progress

Present the *description of the game* and *analysis of game elements and features* into a presentation and present in a presentation pitch.

TASKS TO COMPLETE

Task	**Check List (☑)**
1. Read the PowerPoint on Academic Miss-Conduct and Plagiarism	☐
2. Familiarise yourself with the assignment, the due date, deliverables and what is required	☐
3. Source the games idea, concept and resources	☐
4. Complete the *Description and Details* section	☐
5. **Present the current game progress in a Zoom Cast meeting**	☐
6. Retain all documentation for Part Three of the assessment	☐

DELIVERABLES

You must produce the following deliverables for Part One:

Deliverable	**Format**	**Check List (☑)**
1. Present your Games Design Pitch in a PowerPoint presentation during a stand-up meeting session.	As a [Presentation]	☐
2. Submit your presentation including any additional resources to the submission link as a ZIP file.	As a [*.zip] file	☐

PART TWO: CREATE A GAME — LO 2, 3 AND 4

DESCRIPTIONS AND DETAILS

You must implement the game in Godot. You are free to use resources on the internet if you reference and site resources accordingly and you comply with copyright. However, you are NOT to recreate a game using some else's tutorials or resources. You can create a 2D, Top-Down, Endless Runner, Puzzle etc game or use ideas from your component 1 assessment, however the theme shall be different from your component 1.

You need to deliver the following:

1. A 4-Level game - the boss (final level) is included as a level. A level is a game play scene as discussed during the module.
2. Creation of the game world
3. Specific uses of Scenes/Screens. The following scenes are graded on completion, functionality, support towards the creation of the game world, aesthetics, and game theory as discussed through the module
   a. Loading Scene

   b. Introduction Scene
   c. Main Menu Scene
   d. Boss (Final level) Scene. The scene is included as one of the 4 levels to create for the game.
   e. End Game Scene
   f. Rewards/Achievement Scene
   g. About Scene
4. Sufficient usage of features
   a. Game elements to promote game play according to theory
      i. Elements added to the game should be rationalised and justified according to game theory
   b. Use of rewards systems
   c. Animations, graphics, sound, music
   d. Cinematic techniques to promote game play
   e. Objectives, instructions, and feedback to promote game play

TASKS TO COMPLETE

Task	**Check List** (☑)
1. Read the PowerPoint on Academic Miss-Conduct and Plagiarism	☐
2. Familiarise yourself with the assignment, the due date, deliverables and what is required	☐
3. Implement the game according to Part 1	☐
4. Complete the *Description and Details* section	☐
5. **Present the current game.** After the game demonstration present Part Three	☐
6. Upload the game project to the submission link	☐

DELIVERABLES

You must produce the following deliverables for Part Two:

Deliverable	**Format**	**Check List** (☑)
1. Present your game. Demonstration resources are of your choosing	As a [Presentation]	☐
2. Submit your game including any additional resources to the submission link as a ZIP file. Include the game design document in the zip file.	As a [*.zip] file	☐

PART THREE: GAME DESIGN ANALYSIS PRESENTATION — LO 2, 3 AND 4

DESCRIPTIONS AND DETAILS

The process for the game design document is to record any changes to the design proposal in Part 1. You will need to:

1. Tracked Changes

   a. Changes that have been added or deviated from the design proposed in Part One are outlined and explained. Examples are changes in level design, sprites, game play events, screens etc - provide diagrams or pictures where possible to support explanations. Use the layout in Part One as a guide to record tracked changes. The original game design – refer to part one – should occur after the tracked changes have been explained.

2. Analysis of game elements according to theory
   a. Add the game element analysis as discussed in Part One to the document – include any changes in elements in the game have been changed or added
3. Present the Game Design Document in a Presentation
   a. Refer to the sections outlined in Part One to assist with layout and format for presentation purposes.

YOUR TASK — CHECK LIST

Your task for Part Three is as follows:

Task	**Check List** (☑)
1. Read the PowerPoint on Academic Miss-Conduct and Plagiarism	☐
2. Familiarise yourself with the assignment, the due date, deliverables and what is required	☐
3. Complete the *Description and Details* section, and format it in a PowerPoint presentation	☐
4. **Present your findings after Part Two Demonstration.** Include your groups names and ID's in the presentation	☐
5. Add the document to the ZIP file in Part Two and upload to the submission link	☐

DELIVERABLES — CHECK LIST

You must produce the following deliverables for Part Three:

Deliverable	**Format**	**Check List** (☑)
1. Present the Game Design Analysis a presentation after Part Three demonstration	As a [*.ppt] file	☐
2. Submit your Game Design Analysis Presentation with the zip file in Part Two to the submission link	As a [*.zip]	☐