MAT3451_1819_520 Final Year Project

Student Name: Ming Hei LUI
P-number: P15245731
Programme: Computer games programming
Email address: luiminghei@hotmail.com
Project Title: 2D RPG game
Project Proposer: Self

Supervisor
Supervisor name: Conor Fahy
Email: conorfahy@dmu.ac.uk
Affiliation: IMAT2608_1718_520 Mobile Games lab tutor

Introduction
In this Project will be make a 2D RPG game in unity. The game is about the character needs to escape the maze and find the exit. In the maze, the player needs use weapon or item to survive and fight with the enemies.

Project Background
In this game will make a unity game. This game will use unity, C# and java to program the game physics. The game is 2D action RPG game. This game will use PC platform. The target for the game is kids to adults. The play has five different chapters and map to play. The player has to step by step go through the chapters.

The game story is about the characters how to escape the maze. In the maze there are many different enemies and trap. To survive, the player can use different weapons to shot enemies. Also the player has health bar, level bar and buying system can buy some items to upgrade, heal and unlock more weapon.

In the 2D RPG planform have many different games. Those games are stimulate to this project make the new one. .The special of the game is the player can add the element each as fire, ice and lightning for the weapon. It can keep hurt, slow down and pause the enemies.

Choose RPG game can the make player step by step to know about the game world. The player can easier to enjoy playing the game, also the player can use the problem-solving skills to overcome the puzzle.

Aim/Objectives/Deliverables

Aims:

The project can be played 8-10min and has at least 4-5 maps.

Objectives:

Software Development project include the objectives as

1. To design and implement the game interface

2. To make a test and debug plan

3. To implement achievement by collection system

4. To implement the upgrade system by collecting the coin

5. To design the audio e.g. background music, hurt sound

6. To implement different chapters/map

7. To implement the character and enemies.

Deliverables:

	Development Projects
Final Submission These are some examples: each project will need a complete set of objectives/deliverables Week 27	• Project contract • Ethics form • Project Plan • Global Checklist • Aim/Objectives • Use UML Diagrams/ Flow chart/ OO design • Story boards/ UI design • Audio • Game Art/ texture • Game design idea • Test/debug Plan • Appendices (e.g. Reference) • Final Year Project Report word count: >10.000
Viva examination: attended by the supervisor and the 2nd marker	• Presentation(PPT)

Weeks 31-33	

Resources and Constraints

1.   Software: Unity, notepad++, visual studio, MonoDevelop

2.   Hardware: windows 7 and above, 4GB RAM, storage 4GB available space

Constraints

1. Time, the project have six month make the job done.

2. Availability of the unity resources, it can help to program the game.

Sources of Information

1.   Internet sources

YouTube https://www.youtube.com/

Unity3D https://unity3d.com/learn/tutorials/s/2d-game-creation

OpenGameArt https://opengameart.org/

Game Art 2D https://www.gameart2d.com/
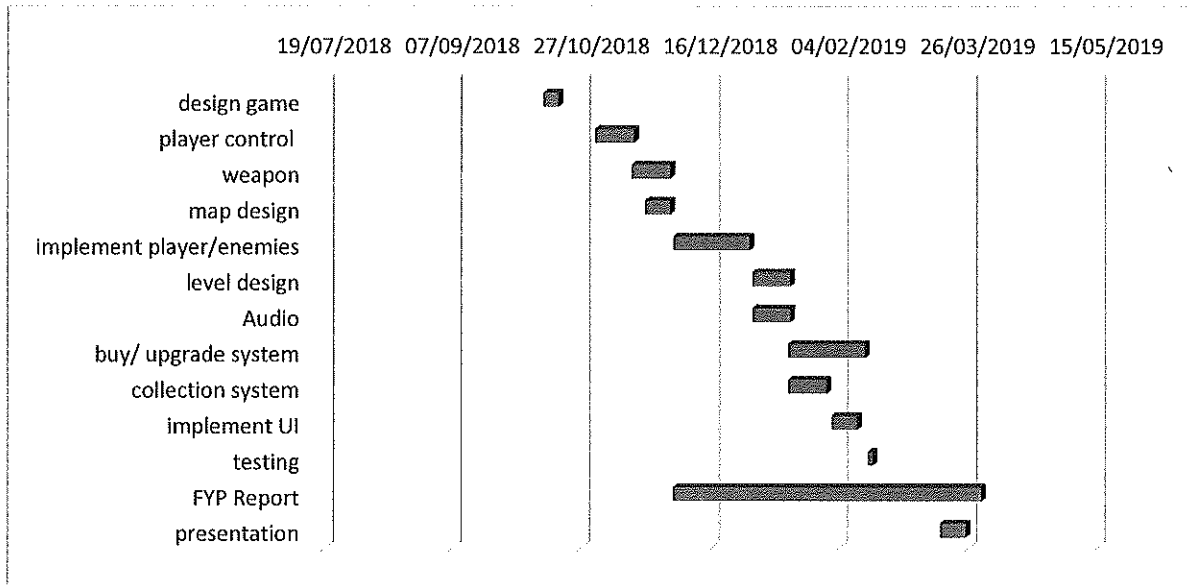
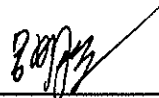2.   De Montfort university blackboard:

IMAT2608_1718 Mobile Games

IMAT1606_1617_520 Game Architecture Design & Develpt

Risk Analysis

The risk of the project is time management, it will not finish the objectives on the project plan. Also in the end the game may not be run as expected. In the develop process risk is programming problem, the program cannot merge and work together. It will get error and crash in the game. Also the program needs to always backup avoid lose data.

Schedule of Activities

	19/07/2018	07/09/2018	27/10/2018	16/12/2018	04/02/2019	26/03/2019	15/05/2019

design game
player control
weapon
map design
implement player/enemies
level design
Audio
buy/ upgrade system
collection system
implement UI
testing
FYP Report
presentation

Student_____   **Date**___25/10/2018_____

Proposer (if other from the student and/or the
supervisor)_____   **Date**_____

Supervisor_
_____**Date**___25/10/2018_____

Keep the signed copy somewhere safe: include it with your initial submission. Your supervisor will
require a copy as well.

IMAT3451 FINAL YEAR PROJECT - ETHICAL REVIEW FORM

The University requires all undergraduate final year projects to undergo an ethical review and, where human research ethical issues are identified, to ensure that these issues are addressed.

For the majority of Computing Final Year Projects, the outcome will be either 'No ethical issues' or 'Minor/Major ethical issues which have been addressed'; in these cases approval can be given by the supervisor. In the unlikely event that the outcome is 'Ethical issues that have not been addressed', the completed form will need to be forwarded to the Faculty Research Ethics Committee.

Student Name

Ming Hei LUI

Programme

Computer games programming

Project Title

2D RPG game

Brief description of proposed activity and its objectives:

In this Project will be a 2D RPG game in unity. The game is about the characters how to escape the maze. The player needs to fight and escape the map.

The objectives are to implement the game included audio, test, player, map and game systems.

Ethical Issues Identified:
(see overleaf)

How these will be addressed:

Gathering information about human being through to improve the game.

The game may save the data for the player.

The information and the data will be preservation and confidentiality in project

Checklist

Has the project proposal identified any of the following research procedures?

1. Gathering information about human beings through: Interviewing, Surveying,
   Questionnaires, Observation of human behaviour   Yes / ~~No~~
2. Using archived data in which individuals are identifiable   Yes / ~~No~~
3. Researching into illegal activities, activities at the margins of the law or
   activities that have a risk of personal injury   ~~Yes~~ / No
4. Supporting innovation that might impact on human behaviour
   e.g. Behavioural Studies   ~~Yes~~ / No

If 'Yes' to any of 1-4 above: have you considered the following?

☐ Providing participants with full details of the objectives of the research
☐ Providing information appropriate for those whose first language is not English
☐ Voluntary participation with informed consent
☐ Written description of involvement
☐ Freedom to withdraw
☑ Keeping appropriate records
☐ Signed acknowledgement and understanding by participants
☐ Consideration of relevant codes of conduct/guidelines

Ethical Review Outcome

    ☐ 1. No ethical issues
    ☑ 2. Minor ethical issues which have been addressed and concerns resolved
    ☐ 3. Major ethical issues which have been addressed and concerns resolved
    ☐ 4. Ethical issues that have not been resolved/addressed

Authorisation
If the outcome is no. 3 or 4 above, this form should be forwarded to the Faculty Research Ethics Committee.

Signature of student   Date   **25/10/2018**

Signature of supervisor   Date 25/10/2018

IMAT3451 FINAL YEAR PROJECT - Global Checklist

The University requires all undergraduate final year projects students to undertake a global review of their project. Here is an International Impact Checklist for you to complete, which can be done in consultation with the project supervisor.

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Please indicate which of these possible attributes is addressed by your undertaking of this project.

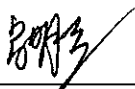| Possible Global Experience	Addressed by Project
Ability to work collaboratively: teams from a range of backgrounds and countries	None
Excellent communication skills with a sensitivity to speaking with and listening to non-native English speakers	✓
An ability to embrace multiple perspectives and challenge thinking in a range of cultural context	None
A capacity to develop new skills and behaviours according to role requirements	✓
An ability to negotiate and influence clients across the globe from different cultures	✓
An ability to form professional, global networks	None
An openness to/respect of a range of perspectives from around the world	None
Multi-cultural learning agility (i.e. able to learn in any culture or environment)	None

Brief description of how the ticked attributes have been addressed:

The project will communicate the non-native English speakers get more idea to improve the game.

The project can improve the knowledge of unity and game programming.
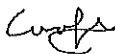
The project will have other cultures in the game. It makes the player from another county can have aroused.

Signature of student _____ Date _____**25/10/2018**_____

Signature of supervisor _____ Date _____25/10/2018_____