OAKLANDS COLLEGE

Assignment front sheet

Learner Name	Assessor Name
	Dr Derek Peacock

Date issued	Completion date	Submitted on
26/28th January 2015	**23/25th March 2015**	

Qualification	Unit number and title
BTEC Level 3 Extended Diploma in IT	**Unit 22: Developing Computer Games**

Assignment title	**Assignment 3 – Game Coding & Testing**

In this assessment you will have opportunities to provide evidence against the following criteria.

Criteria reference	To achieve the criteria the evidence must show that the student is able to:	Task no.
P4	**Develop** a computer game for a given specification.	**Task 1**
P5	Follow a **test strategy** to test and debug a computer game.	**Task 1**
M2	Use appropriate selection and iteration methods for a computer game	**Task 1**
M3	Use a variety of testing tools.	**Task 1**
P6	Produce **user documentation** for a computer game	**Task 2**
P7	Produce **technical documentation** for a computer game	**Task 2**
M4	Suggest improvements to a computer game following user feedback.	**Task 2**

Learner declaration

I certify that the work submitted for this assignment is my own and research sources are fully acknowledged. I am happy with the grade awarded.

Learner signature: Date:

Final Grade (if appropriate)		**Points**	

	Assessment Criteria Achieved (indicate with ✓ and initial)										
	P4	**P5**	**P6**	**P7**	**M2**	**M3**	**M4**				
1st attempt Date											
Final attempt Date											

Assessor's comments

Qualification	BTEC Level 3 Extended Diploma in IT	Assessor name	Dr Derek Peacock
Unit number and title	Unit 22: Developing Computer Games	Learner name	

Grading criteria		Assessor Feedback
P4	**Develop** a computer game for a given specification	
P5	Follow a **test strategy** to test and debug a computer game.	
P6	Follow a **test strategy** to test and debug a computer game.	
P7	Produce **technical documentation** for a computer game	
M2	Use appropriate selection and iteration methods for a computer game	
M3	Use a variety of testing tools.	
M4	**Suggest improvements** to a computer game following user feedback	

Additional Assessor Feedback (including feedback for upgrade) and Action Plan	Action completed by date

Learner Feedback

Learner		**Signature**		**Date**	
Assessor		**Signature**		**Date**	
Internal Verifier		**Signature**		**Date**	
Lead Internal Verifier		**Signature**		**Date**	

Assignment brief

Qualification	**BTEC Level 3 Extended Diploma in IT**
Unit number and title	**Unit 22: Developing Computer Games**
Start date	
Deadline	
Assessor name	**Dr Derek Peacock**

Assignment title	**Assignment 3 – Game Coding & Testing**

The purpose of this assignment is to:

1. Be able to design and develop computer games
2. Be able to test and document computer games.

Scenario

You are working as a junior games developer for an IT Software company called IntelliGames. You have been asked by your supervisor to complete a number of tasks to brief a new client so that they better understand the gaming industry. You have been offered a co-worker to share the work load.

TASK 1 [P4, P5, M2, M3] CREATING AND TESTING A GAME

The client wants you to create a working version of the game you designed.

3.1 [P4] Create your game using an appropriate programming language in accordance to your design.

Make sure that the classes have been divided equally between the two of you, and each class has the authors name clearly stated. Record screen shots showing the game actually working.

3.2 [M2] Make sure you have used selection or iteration methods in your game. Evidence for this would be annotated methods showing how it was used and the screen shot of the game in action.

3.3 [P5] Execute a detailed test plan for the computer game. Ensure that each test includes a log of the result and screenshots as evidence of the test execution. Make sure the tests have been divided equally

3.4 [M3] Show that you have used a variety of testing tools, such as debugging facility, test program code, trace facilities and inspection techniques for the examination of variables when the program is running. Explain what tool was used and what the outcome of the test was. Show screen prints to evidence this.

Evidence: Documented Code, Test Plan & Log, Screen Shots, Report on Testing

TASK 2 [P6, P7, M4] – DOCUMENTING THE GAME AND FEEDBACK.

4.1 [P6] Create a user guide for the game. Ensure that you show the purpose of the game, instructions of how to play the game, and a set of FAQ regarding the gameplay.

4.2 [P7] Create a technical guide for the game which will be kept with the program. You will need to include;

- Use Case Analysis
- A class diagram showing return types and parameters,
- algorithm designs including control methods
- API code documentation.

4.3 [M4] Create a survey and get feedback from users about the game. Using this feedback, write a report to the client suggesting improvements to the game itself.

EVIDENCE: COMPLETED USER GUIDE, TECHNICAL GUIDE, COMPLETED SURVEYS AND REPORT.

Sources of information;
Textbooks
Introduction to Programming with Greenfoot, Michael Kolling (2010) ISBN-10 0-13-245428-5

Game Coding Complete, McShaffrey M (Delmar, 2009) ISBN-10 1584506806, ISBN-13 978-1584506805

Useful Websites
http://www.greenfoot.org
http://zetcode.com/tutorials/javagamestutorial/
www.gamedev.net
http://unity3d.com/