

School of Computing, Electronics and Mathematics Coventry University

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NWC602COM – Web Based Gaming
Assignment 1 – Practical implementation (100% unit grade)

Hand In date: May 29th 2020

Location – South Leicestershire College

Learning **Outcomes** to be assessed in this assignment

Evaluate, design and plan a web game project and generate ideas and concepts for the project.

Create web interactive contents and games using a wide variety of modern technologies and integrate them together.

Implementation – Game Documentation and implementation

This implementation represents 100% of the module mark.

Task

The aim is to plan, design and build a web based game that consists of different web technologies including HTML5, CSS3 and JavaScript. Using the Phaser.JS game engine.

Learning Outcomes

Show different examples of web based games similar to the concept you are planning.

Apply software engineering, design and collaborative programming practices suited to game creation. Evaluate and select suitable (middleware) components appropriate for real-time game applications within a web based game environment.

Discuss the backend web server components needed to host the game. What Software system is been used and why?

Develop the game using concepts of data-driven game application frameworks, rendering, AI, sound and input subsystems.

You will be marked on a good game design and how the various web technologies have been implemented by you in terms of re-usability and software patterns. Your analysis should include the rationale behind your design decisions as well as a discussion on any improvements you would consider.

Please note: you will be Not be evaluated on the quality of 2D models and 2D animation or sound.

Suggested Games: Maze game, Space Invaders, Snake, Snakes and Ladders, Break-out, Tetris, Pac-Man, Super Mario, Bomber Man or similar game.

Marking Criteria

You will be assessed on: the software implementation, as well as a report where you will explain how you have done the implementation, the problems you faced as well as diagrams explaining the most significant aspects of your work. Also note that all the code must be provided in the Appendix section.

The structure of the report must be the following:

- Title page
- Abstract (or summary)
- Introduction
- Brief description of chosen game design
- Game implementation
- Conclusions
- References

Marks Breakdown

Students Name..... Students ID.....

	How JavaScript / PHASER.JS is implemented	Game Concept and implementation	Individual Report
1st 70-100%	Re-usable software well documented & commented. Good use of Phaser libraries. Well-structured game states.	Original game concept which is implemented in an outstanding way. With a game that is multi levelled with no bugs and has lots of features.	Clear and comprehensive Report, give critical evaluation of the achieved tasks, give an insightful solution for the faced problems, have a clear vision for future plans
2.1 60-70%	Mostly successful attempt at creating re-usable software with reasonable documentation & well commented. Good use of Phaser libraries. Structured game states.	Good game concept and implantation. Game plays bug free with several levels and lots of features.	Clear report describing most of the skills gained, reflect only on positive side, list of the faced problems without giving solutions on how to overcome them.
2.2 50-60%	Some attempt at Code that is reusable. Documented with some comments. Phaser libraries used and an attempt at using game states.	Good game concept with limited implementation. Game plays but has some minor bugs. Has several levels and some features.	A report that list achieved tasks, limited critical evaluation or reflections or it is poorly constructed.
3rd 40-50%	Code is not very usable, some attempt at good practices or conventions. Limited Comments. Limited use of Phaser engine and no game states.	Limited game concept and implementation. Game has limited playability. Has one level and has a some features.	Poor report, limited reflection on any strength or weaknesses, critical evaluation, the report shows limited student understanding of the project
Fail 0-40%	Code is not usable, does not follow any good practices or conventions. Phaser Engine not used properly &/or no game states.	Poor game concept with poor attempt at implementation. Game does not work at all.	Very poor report, not reflecting any strength or weaknesses, critical evaluation, the report does not show student understanding of the project
	40%	30%	30%