

Year 8 IST Assignment Two Semester Two (50%) – Game Development

Name:

Marking Criteria:

Item	Mark	Total
Minimum Requirements (10 marks)		
• Be able to display, update and track the player's numerical score.	2	
• Implementation of a clear and challenging game mechanic that enables the player to improve their numerical score.	2	
• Be able to handle any invalid inputs or potential flaws that cause the game mechanic to function incorrectly.	2	
• Well-formed and valid HTML and CSS code.	2	
• The game functions correctly without any major errors and delivers professional presentation of text, images and sounds.	2	
Code Structure & Game Logic (15 marks)		
• Effective and appropriate use of variables and data structures to implement game logic and store the current game state	3	
• Effective and appropriate use of control structures to implement game logic, particularly if statements, switch statements and/or loops (preferably, for loops where possible).	3	
• Effective and appropriate use of appropriate functions including parameters and arguments as required to minimise repetition of code and to properly organise code.	3	
• Effective and appropriate use of Document Object Model (DOM) elements and methods that enable the user to interact with the HTML in order to achieve the game mechanic (e.g. onclick, getElementById, innerHTML and modifying attributes)	3	
• Effective and appropriate use of JavaScript built-in functions and/or properties such as Maths.random(), Maths.floor(), parseInt(), indexOf(), push() and retrieving the length of an array.	3	
Code Formatting (5 marks)		
• Code formatting – indentation, whitespace, semicolons and brackets	3	
• Proper and appropriate naming of all functions, variables and objects	2	
TOTAL	30	

Comments

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Item	Mark	Total
Overall Programming Quality (20 marks)		
<ul style="list-style-type: none"> • A non-working solution, showing a poor attempt and/or minimal skill and understanding of how to code using JavaScript: <ul style="list-style-type: none"> o The code is not close to getting the game functioning as designed o Understanding of how to use JavaScript is lacking (e.g. code that doesn't compile, variables not defined correctly or in the wrong spot) • Code comments are lacking altogether, or they are completely incorrect, demonstrating minimal skill and understanding of how to code using JavaScript 	0-4	
<ul style="list-style-type: none"> • A limited and/or partially working solution, showing limited skill and a basic understanding of how to code using JavaScript: <ul style="list-style-type: none"> o General game logic has been demonstrated. Overall, the code is somewhat close to getting the game functioning as designed o Some essential features work, such as the game loading and a grid is able to be clicked on to change the text o Creation of variables to implement game mechanics such as tracking guesses and checking if they have the correct answer is on the right track o Update of variables to implement game mechanics is on the right track • Code comments are limited, inaccurate or lack details, demonstrating limited skill and a basic understanding of how to code using JavaScript 	5-9	
<ul style="list-style-type: none"> • A feature filled and/or fully working solution showing a high level of skill and a thorough understanding of how to code using JavaScript: <ul style="list-style-type: none"> o General game logic has been fully demonstrated. Overall, the code achieves the goal of getting the game functioning as designed o All essential features work, such as the game loading and the player being able to update their score after clicking on the correct button o Creation of variables and data structures for game mechanics such as generating the correctly sized grid for Battleship is completely functional and/or designed effectively o Update of variables and data structures to implement game mechanics and game logic is completely functional and/or designed effectively o Update of DOM elements to achieve the desired game logic is completely functional and/or designed effectively • Code comments are sufficiently thorough, descriptive and accurate, demonstrating a high level of skill and a thorough understanding of how to code using JavaScript 	10-15	
<ul style="list-style-type: none"> • A range of sophisticated and innovative features are evident (in addition to all of the requirements of a fully working solution) showing an exceptional level of skill and understanding of how to code using JavaScript: <ul style="list-style-type: none"> o Demonstrates sophisticated and innovative solutions to address complex problems (e.g. advanced computer-based AI player, customisation of levels or difficulty, persistent data storage, etc.) o Coding techniques have been masterfully implemented to achieve the solutions (e.g. use of 2D arrays to generate grids, use of objects and functions for a computer based AI player, etc) • Code comments are highly comprehensive, concise, precise and purposeful, demonstrating an exceptional level of skill and understanding of how to code using JavaScript 	16-20	
<ul style="list-style-type: none"> • Marks awarded 	20	
TOTAL	50	

Overall comments

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