Year 7 - Digital Technologies

 Arcade Game Assessment Task 2024 (R1)

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| **TOPIC**: Arcade Game – Coding Skills | **MARKS:** /30  |
| **SUBMISSION REQUIREMENTS:** Part A & Part B Submitted on CANVAS **Term 2, Week 1, Thursday 2nd of May, 2024** |  |
| **OUTCOMES TO BE ASSESSED:****TE4-4DP – Designs** algorithms or digital solutions and implements them in general purpose programming language**TE4-7DI** – **Explains** how data is represented in digital systems and transmitted in networks  |
| **DIRECTIONAL VERBS:****Design:** is a plan or creation of product or service with the intention of improving the human experience with respect to a specified problem.**Explain:** make (an idea or situation) clear to someone by describing it in more detail or revealing relevant facts. |
| **TASK DESCRIPTION:****There are two parts to this task:****Part A:**You are required to **design** a functional arcade game using Microsoft Makecode **“Galga”. (10 marks)****Part B:**You will be required to complete an e-portfolio on Canvas. In your portfolio you need to **explain** howdata is represented and transmitted in digital systems. **(20 marks)**   |
| **ASSESSMENT CRITERIA:****Part A**The requirements for this part of the ask are outlined below:* You must use the program [Microsoft Makecode](https://www.microsoft.com/en-us/makecode)
* Follow each step sequentially to complete a functional Arcade game. Class time will be allocated for you to work on/complete the task.
* Design your own characters.
* You must use Screencastify to record your completed arcade game. This is to ensure each component of the game is functional and your characters are original.

**NOTE:** You must ensure that when recording your game, you have it on full screen. You will be shown the Makecode arcade program and screencastify, and given time to develop your skills during class time. **Part B**You will be required to complete an e-portfolio on Canvas. There will be a scaffold provided for you on Canvas. In your E-Portfolio, you will be required to complete the following:* Objective of the Game
* The functions used in the game (i.e., Sprites, loops, variables)
* Characters and their function in the game

 ***If you need any assistance outside class time, please contact your teacher via email:*****7TEC3, 7TEC9**– Miss Russell matilda.russell6@det.nsw.edu.au **7TEC6** – Mr O’Brien ty.obrien1@det.nsw.edu.au Ms Carter alanna.mckew1@det.nsw.edu.au  |

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|  **ASSESSMENT MARKING CRITERIA** |
| **PART A: Outcomes (TE4-4DP) (10marks)** | **Mark** | **Grade** |
| *Students produces an arcade game using Microsoft Makecode “Galga”. This arcade game includes advanced and detailed algorithms and programming language in the production of a highly**advanced game. Coding skills are extensive, and no faults are visible whilst the game is being played, with a minimum of 5 interesting characters. The arcade game is correctly recorded and exported using the program ‘Screencastify’ and explicitly demonstrates each component of the game* | 9-10 | A |
| *Students produces an arcade game using Microsoft Makecode “Galga”. This arcade game includes detailed algorithms and programming language in the production of an advanced game. Coding skills are evident, and no faults are visible whilst the game is being played, with a minimum of 4 interesting characters. The arcade game is correctly recorded and exported using the program ‘Screencastify’ and clearly demonstrates each component of the game.*  | 7-8  | B |
| *Students produces an arcade game using Microsoft Makecode “Galga”. This arcade game include sound algorithms and programming language in the production of an arcade game. Coding skills are sufficient, and some minimal faults maybe visible whilst the game is being played, with a minimum of 3 interesting characters. The arcade game is recorded and exported using the program ‘Screencastify’ and demonstrates each component of the game.* | 5-6 | C |
| *Students produces an arcade game using Microsoft Makecode “Galga”. This arcade game includes basic algorithms and programming language in the production of a simple arcade game. Coding skills are identifiable, and some faults are visible whilst the game is being played, with a minimum of 2 interesting characters. The arcade game is recorded and exported using the program ‘Screencastify’ and demonstrates some components of the game.* | 3-4 | D |
| *Students produces an arcade game using Microsoft Makecode “Galga”. This arcade game includes incorrect algorithms and programming language in the production of a dysfunctional arcade game. Coding skills are shown, and several faults are visible whilst the game is being played, with a minimum of 1 interesting character. The arcade game is not recorded and exported correctly when using the program ‘Screencastify’ and does not clearly demonstrate the acquired components of the game.* | 1-2 | E |

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|  **ASSESSMENT MARKING CRITERIA** |
| **PART B: Outcomes (TE4-7DI)**  **(20marks)** | **Mark** | **Grade** |
| *Extensive effort in communicating all sections in the portfolio in a succinct and well written manner. Explains comprehensively how data is represented and transmitted in digital systems by clearly and logically outlining the objective of the game, functions, types of characters.*  | 17-20 | A |
| *A high level of effort in communicating all sections in the portfolio. Explains in detail how data is represented and transmitted in digital systems by clearly outlining the objective of the game, functions, types of characters.* | 13-16  | B |
| *A sound effort in communicating most sections in the portfolio. Explains how data is represented and transmitted in digital systems by outlining the objective of the game, functions, types of characters.* | 9-12 | C |
| *Some effort made in communicating some sections in the portfolio. Briefly explains how data is represented and transmitted in digital systems by outlining some objectives of the game, functions, types of characters.* | 5-8 | D |
| *Minimal effort made in communicating information in the portfolio. Provides a limited explanation on how data is represented and transmitted in digital systems by outlining one or two of the following, objectives of the game, functions, types of characters.* | 1-4 | E |