Criterion B: Record of tasks

Task number	Planned action	Planned outcome	Time estimated	Target completion date	Criterion
1	Discuss ideas for product	A rough description of a product that could be made for my client	1 hour	1/31/22	A
2	Discuss success criteria	A list of 5-10 success criteria for the product	30 minutes	2/1/22	A
3	Discuss what platform the product needs to be available for	A list of operating systems (ex: Windows 11, macOS, etc) that the game has to be available on	20 minutes	2/1/22	A
4	Create a UML Diagram	Create a diagram that represents the game that I want to create	1 hour	2/14/22	B
5	Get free images for use in the game and in the design diagram	Have sprites for the player (modeled off a dinosaur), the cacti obstacles, the ground	2 hours	2/3/22	B
6	Download Godot Game Engine	Use Godot's preview feature to assemble the free images into a diagram of how the game will look	1 hour	2/3/22	B
7	Plan out how to generate enemies as the game progresses	Make a flowchart for code to generate enemies	1.5 hours	2/15/22	B
8	Plan out how to handle movement of	Make a flowchart for code to handle keyboard inputs to make the player	1 hour	2/16/22	B

	the player model	jump, as well as collisions with enemies, and applying gravity			
9	Plan difficulty of the game	Meet with client to discuss how difficult the game is	30 minutes	2/16/22	B
10	Make labels and text-based components of the website	Make classes for the different labels (score label, instruction label, pause menu label)	30 minutes	2/17/22	C
11	Make the player class	Make a player class with gravity, a kinematic body for collision detection, and using the up arrow (or the W key) to jump up	1.5 hours	2/17/22	C
12	Make an enemy class	Make an enemy class that all of the enemy cacti will extend: it will contain methods for moving on the ground every frame	1 hour	2/18/22	C
13	Meet with client to discuss cacti types	Have a plan for 3-4 different models of enemy cacti that can be spawned	30 minutes	2/18/22	C
14	Make different cacti	Make four different cacti classes with different sprite models that all extend the enemy class (small triple-spiked cacti, small single-spiked cacti, large single-spiked cacti, large double-spiked cacti)	2 hours	2/18/22	C

15	Make audio module	Extend Godot's built-in AudioStreamPlayer to include methods to play audio without looping	1 hour	2/20/22	C
16	Make collision detection	Adjust the kinematic bodies to look like outlines of cacti/player sprites, add an event handler for a collision	1.5 hours	2/20/22	C
17	Make scoring system	Implement a timer that keeps track of how long the game has been running, implement file IO to write highscore to a file or load it	1 hour	2/21/22	C
18	Make a loop for spawning new enemy cacti	Implement a loop to check whether sufficient time has passed since the last enemy was spawned; if so, spawn a cactus with a random one of the four possible cactus sprites	2.5 hours	2/22/22	C
19	Implement function to reload game	Use Godot's built-in functions to delete the main landscape from memory and load a new instance of it	3 hours	2/23/22	C
20	Implement responsive labels	Make the appropriate label pop up at the right times (Ex: instruction labels rendered at the start but disappear after the game starts, a death screen rendered when the	1.5 hours	2/24/22	C

		player dies, a pause screen when the game is paused)			
21	Set up exporting games as HTML5 and Windows/Linux executables	Download Godot export scripts, configure them to bundle all dependencies into the executable and make it run in silent debugging mode (so a terminal doesn't pop up with debug info when the game starts)	2 hours	2/24/22	C
22	Fix bug when timer keeps counting when game is paused	Keep track of how long the game was paused with a separate timer, subtract that time from the total time the game has been running for	1 hour	2/25/22	C
23	Make game less resource intensive by deleting unused resources	Delete cacti and free up the memory used if the player successfully jumps over it and the cacti continues offscreen	1 hour	2/27/22	C
24	Make a game background	Implement a scrolling desert background that loops endlessly	1.5 hours	3/1/22	C
25	Brainstorm ideas for extending the project	Meet with the client to evaluate the final product and brainstorm ideas for extending it in the future	2 hours	3/6/22	E
26	Write Criterion E	Write up the client feedback, how many of the success criteria were achieved, and ideas	1 hour	3/10/22	E

		for future development			
27	Make a video for Criterion D	Make a video showcasing the product, how the success criteria were achieved, and possible steps to extend it in the future	10 minutes	3/12/22	D
28	Refine product	Add a few new persistent variables (amount of times played, amount of cacti jumped over)	1 hour	3/29/23	C