Project:	Dreamscape
Team No.:	5
Class:	CSE 3310; Fall 2023
Module:	Test Plan
Deliverable:	Test Plan Document

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Revision History

Version number	Date	Originator	Reason for change	High-level description of changes
1.0	11/16/2023	5	Initial draft	

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1. Introduction and Plan of Approach

Project Overview:
Dreamscape is a primarily stealth, turn-based strategy game with horror undertones and elements. The game focuses on the player's avatar, a treasure hunter, with the ability to jump and cross different fantastical and supernatural worlds each with a different theme. The player visits these worlds, and each world contains a set of levels. The levels are then traversed in a set order. Each level then contains a set number of different kinds of enemies and obstacles laid out in a grid tile map. The player then traverses the level by sneaking their way to obtain the level's goal item of the level and then escaping from the level and enemies after obtaining the item. The player will then work through all the levels in each world and then after the final level the world is complete and then the player unlocks the following world. As the player works through the levels, they can gain unique items that help them get through the given levels. The end goal of the game is to work through each world's levels and gain the final treasure of each world.

Components Covered:
1.   Menus
2.   Player
3.   Levels
4.   Environment
5.   Player Movement System
6.   Fighting System

Assumptions and Anomalies:
-       We can assume that the game is being run on a valid android device
-       Assume that all game art and visible UI is understandable and implemented
-       Assume that underlying system operations that are needed to test these component cases are implemented correctly.
-       As we continue to work on the game development, we can expect to find anomalies such as:
1.   Introducing new components can introduce new bugs and complications between new and old components that could cause unseen and unexpected results in test outcomes.
2.   As members begin to combine and consolidate the code into one project components may begin to clash and create errors or negative outcomes.

2. Test Cases: "Menus"

Project Name: Dreamscape
Test Case Name: Menus
Test Case Id: CSE3310/Fall 2023/Team5/Menus

Test Case No.	Test Case Description	Expected results	Outcome Pass, Fail, Other (comments)
TC1	Tap on the app icon.	System should open and the main menu should be displayed. Ensure that the navigation is available for the player.	
TC2	When on main menu screen, tap start button	System should take user to the world select screen	
TC3	Swipe left or right on world menu icons	No navigation issues or getting stuck between menus. Allows users to cycle between available worlds to play.	
TC4	During gameplay, locate and tap on the 'pause' button	Level should 'pause' or remain frozen while pause menu is opened	
TC5	Open the app and scroll through the different menus and submenus.	The performance of the menu and submenu should not have any issues, delays or freezes during transitions between menus.	

3. Test Cases: "Player"

Project Name: Dreamscape
Test Case Name: Player
Test Case Id: CSE3310/Fall2023/Team5/Player

Test Case No.	Test Case Description	Expected results	Outcome Pass, Fail, Other (comments)
TC1	Locate and select the 'tool' option.	Opens available tool list System should allow the player to select up to three tool items the player can take into a level.	
TC2	Complete a level	When a level is complete, a tool item should be unlocked and allowed to be selected by the player to take into a new level	
TC3	Navigate to and press the 'skills' button from the world menu.	Upon entering skills menu: Player should be able to see their skill points Player should be able to see character skills Player should be allowed to invest skill points into skills	
TC4	Observe the end-of-level results screen.	When a player completes a level their skill point amount should increase.	
TC5	Locate and select the player menu from the world menu screen	When a player invests a skill point into a chosen skill then it should update the player's strength, stealth, or satchel attribute accurately. Check if it reflects the character's current abilities.	

4. Test Cases: "Levels"

Project Name: Dreamscape
Test Case Name: Levels
Test Case Id: CSE3310/Fall2023/Team5/Levels

Test Case No.	Test Case Description	Expected results	Outcome Pass, Fail, Other (comments)
TC1	Enter a patrol enemy detection radius	The enemy should enter an alert state and chase the player	
TC2	Acquire the level's special item	The level exit is unlocked and all enemies enter the alert mode	
TC3	Enter the level exit after acquiring the special item.	The level should be completed and a new tool should be unlocked	
TC4	Use a satchel item	The effect of the satchel item is activated	
TC5	Use all the available movement points and end turn	Each enemy on the map takes their turn to move/attack	
TC6	Die before reaching the exit	The player loses and the level restarts	
TC7	Pick up a satchel item	The item is added to the player's satchel inventory	

5. Test Cases: "Environment"

Project Name: Dreamscape
Test Case Name: Environment
Test Case Id: CSE3310/Fall 2023/Team5/Environment

Test Case No.	Test Case Description	Expected results	Outcome Pass, Fail, Other (comments)
TC1	Navigate to a door and interact with the door	Player should be presented with an option to open door upon interaction If the locked door is locked, the player should have the corresponding key to open the door. The door should open if the player has enough Movement Points or a given item, creating a new path.	
TC2	Locate and activate a switch.	The switch should trigger an environmental change or effect, such as lighting a fire, affecting players/enemies or opening a door.	
TC3	Find and end turn on a tile with fire effect.	The player should receive damage.	
TC4	Search and interact with a wet or water tile.	The player should receive a 'wet' or 'slowed' condition affecting player movement cost.	
TC5	Attempt to pass or move through walls or obstacles	The player should be unable to pass through but able to navigate around the obstacle.	

TC6	With no movement points left, attempt to interact with a close environmental interactable object	The interaction should not be possible if the player lacks sufficient Movement Points. Player is notified they do not have sufficient movement points to interact with the object	
TC7	Use inventory items on hazardous objects.	The item from the inventory should appropriately mitigate or enhance interaction with the hazard object.	
TC8	Attempt to move with no movement points left	The player is notified that they do not have enough movement points to move.	

6. Test Cases: "Player Movement System"

Project Name: DreamScape
Test Case Name: Player-Movement-System
Test Case Id: CSE3310/Fall 2023/Team5/Player-Movement-System

Test Case No.	Test Case Description	Expected results	Outcome Pass, Fail, Other (comments)
TC1	Drag from player and make a path to desired location tile	The game should display the path and move the player along it when confirmed.	
TC2	Click player character and click desired tile location	The shortest viable path should be displayed and the player moved along it upon confirmation.	
TC3	Pinch and expand on screen	The grid should zoom in/out accordingly, giving a closer view or an overview of the level environment.	
TC4	Use a satchel Item from inventory.	The chosen item's effect is applied and its count is reduced or marked as consumed in the satchel inventory.	
TC5	Interact with an environment piece in a level	The interaction should trigger the specific in-game event or consequence associated with the piece.	
TC6	Drag movement through and around obstacles	The player should be able to move according to the grid's rules, avoiding obstacles and hazards.	

TC7	Swipe across the screen in level	The camera should pan smoothly, allowing the user to explore different areas of the grid without having to move.	

7. Test Cases: "Fighting System Requirements"

Project Name: Dreamscape
Test Case Name: Fighting System Requirements
Test Case Id: CSE3310/Fall 2023/Team #5/Fighting-System-Requirements

Test Case No.	Test Case Description	Expected results	Outcome Pass, Fail, Other (comments)
TC1	Select 'attack' button during fight scene	The player attacks an enemy. The enemy should lose health points. Health loss is calculated by the strength stat of the player	
TC2	Let enemy attack player	The player health points should decrease based on damage dealt by enemy attack	
TC3	Select the 'run' button during fight scene	Player is given the chance to escape the fight The chance of escape should be calculated using the player's stealth stat	
TC4	Select 'item' button and select valid item from inventory in fight scene	Player inventory should be correctly displayed with items that can be used in a fight sequence. The player's selected item should have its effect activated	
TC5	Let player health reach zero	Results in a player game over and level restarts	