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We Remember
Test Plan and Results
CS 5002
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Overall Test Plan

Our approach to testing will focus on a number of different aspects of our application, covering both the frontend and the backend, while focusing on testing components both individually and as a system. One of our focuses in testing will be on data storage and upkeep. Using simulated data, we will test that important data is properly stored in the database, as is necessary, and that the data passes edge case tests. We will also focus on testing the user interface to ensure a seamless and aesthetically pleasing application for the end user. The application should be easy to read and navigate, and the menus should all function as intended. We will test the user interface for abnormalities to ensure that no errant paths exist in our interface design.

We will test the user experience by making sure that the controls of the game are fluid and responsive, that the audio and visuals are all functioning correctly, and that the game runs smoothly. We will stress test our application to ensure that it meets these requirements, and we will test the experience with abnormality testing to make sure no glitches or crashes occur. We will also test the game to make sure that the story experience is linear, sensical, and historically accurate. We will do a playthrough-test to ensure that the story experience meets these expectations. Finally, we will test the application as a whole in a production environment, making sure that the data, the user interface, and the user experience all work together to create a seamless experience, free of glitches or bugs.

Test Case Descriptions

1) Consistent Stats Test 1
    a) Purpose: This test will ensure that the player's health is recovered/damaged in a consistent and balanced way.
    b) Description: This test will check to make sure the player isn't "one-shot" with every hit and can slowly recover health to ensure the game is balanced.
    c) Inputs: Player moving in range of any damage or health recovery system
    d) Outputs: Printed health values in the output log
    e) Normal
    f) Whitebox
    g) Functional
    h) Unit
2) Consistent Stats Test 2

   a) Purpose: This test will ensure that the player's stamina is depleted and recovered in a consistent and balanced way.
   b) Description: This test will check to make sure the player loses stamina when performing actions and ensures that the player recovers their stamina consistently over time.
   c) Inputs: Player walking/running around
   d) Outputs: Printed stamina values in the output log
   e) Normal
   f) Whitebox
   g) Functional
   h) Unit
3) Menu Function Test 1
   a) Purpose: This test ensures that menu buttons and options all work as intended and don't cause unexpected actions
   b) Description: This test involves clicking or selecting buttons on the UI that affect the game in some way to observe their actions
   c) Inputs: Keyboard (Arrow Keys)/Mouse
   d) Outputs: Expected output include the buttons functioning how they were intended, matching the description they're given, such as a Start button beginning the game
   e) Normal
   f) Blackbox
   g) Functional
   h) Unit
4) Player Movement Test 1
   a) Purpose: This test will verify that the user can navigate the game world effectively by controlling the player character
   b) Description: The tester will walk left and right within the game world
   c) Inputs: Keyboard/Mouse
   d) Results: The player character successfully moves according to user input
   e) Normal
   f) Whitebox
   g) Functional
   h) Unit
5) Player Movement Test 2
   a) Purpose: This test will verify that the user can navigate over objects and avoid enemies by controlling the player character with more advanced movement
   b) Description: The tester will jump onto objects, over moving projectiles, and around enemies
   c) Inputs: Keyboard/Mouse
   d) Results: The player character successfully navigates over objects and can jump when input is timed correctly to dodge incoming projectiles
   e) Normal
   f) Whitebox

   g) Functional
   h) Unit
6) Player Attack Test 1
   a) Purpose: This test will verify that the user is able to attack enemies with the player character
   b) Description: The tester will perform an attack targeted towards an enemy
   c) Inputs: Keyboard/Mouse
   d) Results: The player character is able to damage an enemy with the correct attack input
   e) Normal
   f) Whitebox
   g) Functional
   h) Unit
7) Player Death Test 1
   a) Purpose: This test will verify that the user is reset to a suitable point in the game when the player character dies, and that data is successfully reloaded and restored to the proper state
   b) Description: The player character will take damage and die
   c) Inputs: Keyboard/Mouse, previous save state
   d) Results: The user is restored to a previous state where the player character's inventory matches what it should be and all enemy/quest states are what they previously were
   e) Normal
   f) Whitebox
   g) Functional
   h) Unit
8) Performance Test 1
   a) Purpose: This test will ensure that the game runs at a consistent and smooth rate
   b) Description: Various performance checks will be run using Unitys' engine functions such as displaying the CPU/GPU usage and FPS rates
   c) Inputs: Keyboard/Mouse
   d) Results: The stats shown for each of the functions displayed should be smooth and consistent, performing well under the stress of the game
   e) Normal
   f) Whitebox
   g) Performance
   h) Integration
9) Performance Test 2
   a) Purpose: This test will ensure that the game does not crash or run into any "hard-stuck" bugs stopping the player from continuing the game.
   b) Description: The game will be played through multiple times and each of the actions in game will be performed in different steps.
   c) Inputs: Keyboard/Mouse

   d) Results: The game should be stable and not crash, nor have bugs that stop the player from being able to play the game
   e) Normal
   f) Whitebox
   g) Performance
   h) Integration
10) Quest/Story Test 1
   a) Purpose: This test will ensure that the quest system is implemented successfully and that the user is able to progress throughout the game
   b) Description: The user will perform actions to trigger completion of a given quest
   c) Inputs: Keyboard/Mouse
   d) Results: The user completes the quest when success criteria is met and the next quest is triggered
   e) Normal
   f) Whitebox
   g) Functional
   h) Integration

Test Case Matrix

	Normal/ Abnormal	Blackbox/ Whitebox	Function/ Performance	Unit/Integration
CST 1	Normal	Whitebox	Function	Unit
CST 2	Normal	Whitebox	Function	Unit
MFT 1	Normal	Blackbox	Function	Unit
PMT 1	Normal	Whitebox	Function	Unit
PMT 2	Normal	Whitebox	Function	Unit
PAT 1	Normal	Whitebox	Function	Unit
PDT 1	Normal	Whitebox	Function	Unit
PT 1	Normal	Whitebox	Performance	Integration
PT 2	Normal	Whitebox	Performance	Integration
QST 1	Normal	Whitebox	Functional	Integration