Project:	Student Information Exchange (SIE)
Team No.:	09
Class:	CSE 3310; Fall 2022
Module:	Test Plan
Deliverable:	Test Plan Document

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Team members are:

Brendan Sophabmixay
Gabriel Majors
Raed Ali
Muhammad Muawiz Farooqi

Revision History

Version number	Date	Originator	Reason for change	High level description of changes
1.0	11/17/2022	Team #9	Initial draft	
2.0	12/6/2002	Team #9	Added test cases	Added test cases to Settings and End Gameplay

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1. Introduction and Plan of Approach

Project Overview:

The goal of the project is to create a skateboard platformer game where the players get to explore a small city where they can perform tricks. The main objective will be to finish the level with the highest score. Tricks will be include kickflips and rail grinds. The player may also take on NPC request challenges for bonus score, which may have its own time limit.

Components convered in the Test Plan:

1.   Home Menu Design
2.   Design Setting Menu
3.   Player Movement
4.   Game Environment
5.   Display User Interface
6.   End Gameplay

Assumptions and anomalies:

All functionality may not work depending on test cases developed (Refer to ReadMe at the start)

2. Test Cases: "Home Menu Design"

Project Name: **SAS**
Test Case Name: **Home Menu Design**
Test Case Id: **CSE3310/FL2022/Team9/Design Home Menu**

Test Case No.	Test Case Description	Expected results	Outcome Pass, Fail, Other (comments)
TC1	Game executable launched	The application should display the Main Menu screen, with fully functional transition into the Start, Settings, and Exit game scenes respectively.	
TC2	In the main menu screen, press 'Start'.	Game should transition from the main menu into the main gameplay loop.	
TC3	In the main menu screen, press 'Settings'.	Game should open/transition into the Settings screen which should display options involving SFX Volume, Music Volume, and a 'Master' Volume(Which affects both SFX and Music Volume) and a back transition button (which transitions back into the main menu scene).	
TC4	In the Main Menu Screen, press 'Quit'.	Game should open up a prompt confirming users intent to close the game application or go back to the main menu screen.	
TC5	While in the game, click 'M'	Redirected to the main menu	

3. Test Cases: "Design Settings Menu"

Project Name: **SAS**
Test Case Name: **Design Settings Menu**
Test Case Id: **CSE3310/FL2022/Team9/Design Settings Menu**

Test Case No.	Test Case Description	Expected results	Outcome Pass, Fail, Other (comments)
TC1	In the Settings menu, Resolution is pressed	The drop down menu provides a list of resolution choices that can be selected	
TC2	In the Resolution drop-down menu, a resolution is selected	The selected resolution is applied to the game, the windows is resized accordingly.	
TC3	In the Settings menu, the Master Volume can be dragged	By dragging the Music slider, the user can adjust both the music volume and the sound volume (from 0% on the left to 100% on the right).	
TC4	In the Settings menu, the Full Screen checkbox is selected	The fullscreen mode is toggled, game enters or exits fullscreen mode	
TC5	In the Settings Menu, press the 'Main Menu' button	Game should transition from the settings scene back into the main menu scene.	

4. Test Cases: "Player Movement"

Project Name: SAS
Test Case Name: Player Movement
Test Case Id: CSE3310/FL2022/Team9/Player Movement

Test Case No.	Test Case Description	Expected results	Outcome Pass, Fail, Other (comments)
TC1	In the game environment, the movement keys (A/D or left/right arrow keys) are pressed	Player should be able to move left and right by using A/left arrow key to go left and D/right arrow key to go right.	
TC2	In the game environment, the Jump key(space bar) is pressed	Player should jump. Depending upon the speed of the player, the player should jump higher or lower. Player can only jump while on the ground.	
TC3	In the game environment, the acceleration key (left mouse button) are pressed	Single click slightly increases player speed. Subsequent clicks continue increasing player speed till max speed reached. While in the air or not moving, nothing happens. Simulates kicking off the ground to speed up.	
TC4	In the game environment, the brake key (right mouse button) is held down	The Player should stop all horizontal movement while on the ground. Braking while in the air has no effect.	
TC5	In the game environment, the trick keys (Q/E) are pressed	Player will cycle between trick animations while in the air for each trick key press. If the trick key is pressed right before hitting the ground, the player will lose all their speed and an animation will play of them messing up.	
TC6	In the game environment, the	While in the air, if the ground dash key is pressed, the player will accelerate	

		ground dash key (middle mouse button or shift key) is pressed	downward and lose all horizontal velocity. Ground dash while on the ground has no effect.	
	TC7	In the game environment, the 'M' key is pressed	Redirected to main menu	
	TC8	In the game environment, the 'R' key is pressed	Game restarts to beginning of the level	

5. Test Cases: "Game Environment"

Project Name: **SAS**
Test Case Name: **Game Environment**
Test Case Id: **CSE3310/FL2022/Team9/Game Environment**

Test Case No.	Test Case Description	Expected results	Outcome Pass, Fail, Other (comments)
TC1	Player encounters hazards: spikes	Contact with spikes results in a short death animation along with a death message, player reset to last checkpoint, score decreases by small value [eg: 10]	
TC2	Player encounters hazards: cars	Contact with a car results in a short death animation along with death message, reset to last checkpoint, score decreases by larger value [eg: 25]	
TC3	Player encounters hazards: oil	Player takes longer to slow down or change direction. Oil sticks with player for a short amount of time.	
TC4	Player encounters obstacles: ramps	Player's speed decreases, higher movement resistance depending on ramp slope, idling on a ramp makes player move towards the bottom of the ramp	
TC5	Player encounters obstacles: rails	Player can jump to interact with rails, perform tricks using trick buttons. Falling off animation played if trick executed close to end of railing	

TC6	Player encounters obstacles: boost pads	Player's speed increases when in boost pad zone. Acceleration also increases while in boost pad zone. Unable to idle (stop) in boost pad zone	
TC7	Player encounters collectables: CDs	Player can collect CDs after contact. Increases score depending on CD color (rarity). CD counter increases, displayed at end gameplay screen	

6. Test Cases: "Display User Interface"

Project Name: **SAS**
Test Case Name: **Display User Interface**
Test Case Id: **CSE3310/FL2022/Team9/Display User Interface**

Test Case No.	Test Case Description	Expected results	Outcome Pass, Fail, Other (comments)
TC1	Player approaches NPC.	NPC waves and beckons the player	
TC2	Player presses "F" when near a beckoning NPC.	Dialogue box pops up and player movement is frozen.	
TC3	Player clicks the dialogue box, or presses "F"	Dialogue cycles, and if it reaches the end, the dialogue box closes, when the dialogue closes an appropriate quest UI pops, with a timer, a trick, or a location indicator, or pickup.	
TC4	Player fails objective	Dialogue appears and TC2 and TC3 are repeated and NPC animation changes to disappointment.	
TC5	Player completes	Dialogue appears and disappears, score is updated, and NPC animation changes to amazement.	

7. Test Cases: "End Gameplay"

Project Name: **SAS**
Test Case Name: **End Gameplay**
Test Case Id: **CSE3310/FL2022/Team9/End Gameplay**

Test Case No.	Test Case Description	Expected results	Outcome Pass, Fail, Other (comments)
TC1	Player lands in proximity of endpoint	End screen appears, along with the final score. A score breakdown appears, along with a comparison of previous scores, and a restart button.	
TC2	Restart button is pressed	The level is reset, NPC's states are reset, collectables, and scores are reset, and the player is moved to the beginning of the level.	
TC3	Main menu button is pressed	Load main menu, save score and attempt number to score history	
TC4	Settings button is pressed	Player enters into settings menu, can return back using back button on top right of settings menu	
TC5	'R' key is pressed while in game	Restart to last saved checkpoint. If no checkpoint reached then restart to the beginning of the game.	