

**Project: Fishing Trip**

**Team No.: 3**

**Class: CSE 3310-003; Fall 2020**

**Module: Test Plan**

**Deliverable: Test Plan Document**

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## Team Members:

Jeremy Jones  
Uyen Do  
Tia Deloach Benson  
Alexander Cole  
Benjamin Stanelle

### Revision History

<b><i>Version number</i></b>	<b><i>Date</i></b>	<b><i>Originator</i></b>	<b><i>Reason for change</i></b>	<b><i>High level description of changes</i></b>
1.0	11/07/2020	Jeremy Jones Uyen Do Tia Deloach Benson Alexander Cole Benjamin Stanelle	Initial draft	
1.1	11/11/2020	Tia Deloach Benson	Final Version	Spell checking, proofreading

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## 1. Introduction and Plan of Approach

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Team 3 has decided to design and release an android game app named Fishing Trip. This game will be a two-dimensional platformer. The character will constantly be running to the right of the screen. The objective is to get as far as possible without touching any obstacle. Obstacles, power-ups, and bonuses are randomly spawned into the game. There are three backgrounds that are changed according to the achieved distance. The background audio will be playing throughout the game and sound effects will be added for hitting obstacles and collecting bonuses. The player will also be able to choose from five-character skins. The app will keep track of the 10 highest scores on the device.

The components that will be covered in the Test Plan include Home Screen, Play Game, Game Over Screen, Quit Game, Change Settings, High Scores, and Audio.

Plan of approach:

- Project team members provide input and recommendations for test cases in this document
- Project manager reviews the document and tracks the progress of testing activities
- The stakeholder's representatives may take part in the testing activities to ensure the requirements of the product are aligned
- Technical team provides environment for testing and follows procedures to ensure finding and fixing defects

The test assumptions include:

- There are enough testers assigned to the project
- Technical team has knowledge and necessary experience for Android applications
- There is no environment downtime during test

Missing components include:

- Sound effects for power-ups
- Distance on game screen
- Power-ups application
- High score screen

## 2. Test Cases: "Home Screen"

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**Project Name:** Fishing Trip  
**Test Case Name:** Home Screen  
**Test Case Id:** CSE3310/Fall 2020/Team 3/HomeScreen

Test Case No.	Test Case Description	Expected results	Outcome Pass, Fail, Other (comments)
TC1 Play Button	At "Home" screen, click on "Play" button	System should direct you to game screen where character is generated and ready to play	Pass
TC2 Setting Button	At "Home" screen, click on "Settings" button	System should direct you to the settings screen where the player can change: <ul style="list-style-type: none"><li>● Player's name</li><li>● Character's skins</li><li>● Volume up/down</li></ul>	Pass
TC3 High Score Button	At "Home" screen, click on "High Scores" button	System should direct you to high scores screen where the 10 highest scores are displayed in descending order	Pending (Code is still in progress)
TC4 Quit Button	At "Home" screen, click on "Quit" button	System should exit the game and close the game window	Pass
TC5 Audio	At "Home" screen, do not need to press any buttons	Background audio should be playing endlessly if you are staying at "Home" screen	Pass

### 3. Test Cases: "Play Game"

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**Project Name:** Fishing Trip  
**Test Case Name:** Play Game  
**Test Case Id:** CSE3310/Fall 2020/Team 3/PlayGame

Test Case No.	Test Case Description	Expected results	Outcome Pass, Fail, Other (comments)
TC1 Player Animations	The player in the game is correctly placed and the animations and horizontal movements are working	The player should be moving either left or right and the player animations should be placed in the correct order. Additionally, the background scene should constantly be moving to the left.	Pass
TC2 Obstacle Animations	The obstacles are correctly moving in the game and the correct animations are displayed. These obstacles include bulls, chickens, dogs, rocks, mud, and bushes.	The correct obstacles are appearing, and the correct animations are applied to their respective obstacles	Pending (Some obstacles have been completed)
TC3 Alternating Backgrounds	The backgrounds alternate between the field, forest, and beach scenes throughout the game	The backgrounds should change between the different scenes in the correct order (field, forest, beach) depending on the distance. The background music should remain playing as well.	Pass
TC4 Player Movements	The player should have the ability to move to the left and right, and should also have the ability to jump	The player moves to the left or right, depending on which directional button is pressed. Additionally, the player should jump when the jump button is pressed.	Pass
TC5 Collision with Obstacles	If the player hits an obstacle without having the invincibility power-up (fishing hook), then the game should end	The game is redirected to the game over screen. The correct score is calculated based on the total distance ran and baits collected. This is then shown to the player.	Pending (Code is still in progress)

TC6 Collision with Power-Ups	<p>The player should have the correct power-up applied to them. There are three types:</p> <ul style="list-style-type: none"> <li>• Fishing bait: adds bonus</li> <li>• Coffee: speeds up player</li> <li>• Fishing hook: makes player immune to one obstacle</li> </ul>	<p>Different power-ups should affect the game and character differently.</p> <ul style="list-style-type: none"> <li>• Fishing bait: bonus points is added to the total distance</li> <li>• Coffee: player's speed rapidly increases</li> <li>• Fishing hook: player is still alive after hitting one obstacle</li> </ul>	Pending (Some power-ups are still being implemented)
TC7 Collision with Debuff	A debuff is applied to the player when the player hits the mud obstacle without the invincibility power-up	The player's speed decreases, therefore decreasing the rate that the distance increases	Pending (Code is still in progress)
TC8 Pause and Resume Screen	The pause and resume screens work to pause or to continue the game	The game pauses when the pause button is pressed, and the game is resumed when the resume button is pressed	Pass
TC9 Current Distance	The correct running distance is displayed on the screen	The running distance is calculated correctly when the player continues to run; the distance rapidly increases when the player collects a coffee powerup	Pending (Code is still in progress)
TC10 Spawning Obstacles	Obstacles are randomly spawned in the game; the number of obstacles spawned is based on the current scene in the game. For example, the beach scene will have more obstacles spawned than the forest scene.	The correct obstacles are spawned in the correct scenes. The field scene would have bull, chicken, and dog obstacles spawning. The forest scene should have mud and rock obstacles spawning. The beach scene should include bush obstacles.	Pending (Code still in progress)

#### 4. Test Cases: "Game Over"

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**Project Name:** Fishing Trip  
**Test Case Name:** Game Over  
**Test Case Id:** CSE3310/Fall 2020/Team 3/GameOver

Test Case No.	Test Case Description	Expected results	Outcome Pass, Fail, Other (comments)
TC1 Game Over Screen	Play the game and get hit by an obstacle or enemy (Bull, Chicken, Dog).	The player will be destroyed and a pop-up menu will be shown on the screen displaying the Achieved Distance, Collected Baits, and Total Score, as well as 3 buttons which are Restart, Home, Exit.	Pending (Code is still in progress)
TC2 Top 10 High Score	Play the game and beat a top 10 score of high scores board, then get hit by an obstacle or enemy (Bull, Chicken, Dog).  Popup menu for current player's name: (format-accepts between 5 and 15 characters, special characters allowed, allowing duplicate names)  Click the "Enter" button when done putting in the username.	A popup menu for the current players name will pop up and place that name at the players respected position on the high scores board.	Pending (Code is still in progress)
TC3 Restart Button	Player dies, then the game over screen pops up, and the player clicks the "Restart" button.	The Game will be restarted with the players score and baits reset to 0, and the game will begin from level 1 (field area).	Pending (Code is still in progress)
TC4 Home Button	Player dies, then the game over screen pops up, and the player clicks the "Home" button.	The current game object will be destroyed along with all its data (total score, baits), then the player will be taken to the main menu or home screen.	Pending (Code is still in progress)



TC5 Exit Button	Player dies, then the game over screen pops up, and the player clicks the “Exit” button.	The game is completely exited, similarly to Quit Game	Pending (Code is still in progress)
TC6 Invalid Username	Username must be between 5 and 15 characters	Asks user to re-enter a username between 5 and 15 characters	Pending (Code is still in progress)

## 5. Test Cases: “Quit Game”

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**Project Name:** Fishing Trip  
**Test Case Name:** Quit Game  
**Test Case Id:** CSE3310/Fall 2020/Team 3/QuitGame

<b>Test Case No.</b>	<b>Test Case Description</b>	<b>Expected results</b>	<b>Outcome Pass, Fail, Other (comments)</b>
TC1 Quit Button	When the player is on the main menu and the “Quit” button is pressed.	All settings reset to default and current objects are destroyed. The game window is then closed.	Pass

## 6. Test Cases: "Change Settings"

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**Project Name:** Fishing Trip  
**Test Case Name:** Change Settings  
**Test Case Id:** CSE3310/Fall 2020/Team 3/ChangeSettings

Test Case No.	Test Case Description	Expected results	Outcome Pass, Fail, Other (comments)
TC1 Setting Button	A button with the text 'Settings' that should be activated with a single click.	Pressing this button should open the settings menu from the main menu with a single interaction.	Pass
TC2 Player Name Field	To the right of the 'Player Name' text is an input field used for the name of the player that is editable.	Users can input a string that should save and appear on the high scores after they complete a game.	Pending (Code is still in progress)
TC 3 Player Skin	To the right of the 'Player Skin' text is a drop-down menu where the player can select a skin using a dropdown menu.	Pressing the arrow will generate the dropdown menu with 5 skins to choose from, and selecting one will close the menu displaying the selected skin within the menu box.	Pending (Code is still in progress)
TC4 Skin Applied	The correct skin is applied when the game is played.	When the player selects a skin, the game should spawn that character in the game when they play it. Check for all 5 cases.	Pending (Code is still in progress)
TC5 Music Volume	To the right of the 'Music Volume' text is a slider that will change the volume of music in the game.	Moving this slider should change the volume of current and future music on all scenes and save across sessions.	Fail, does not yet work for ALL sounds
TC6 Quit Button	At the bottom of our settings menu is a 'Quit' button.	Clicking this button should close the settings menu, saving all settings, and returning the user to the home screen.	Pass

## 7. Test Cases: “High Scores”

**Project Name:** Fishing Trip  
**Test Case Name:** High Scores  
**Test Case Id:** CSE3310/Fall 2020/Team 3/HighScores

Test Case No.	Test Case Description	Expected results	Outcome Pass, Fail, Other (comments)
TC 1 Displays at End of Game	Does the High Scores menu display at the end of the game?	When the game ends, the High Score menu should pop up.	Pending (Code is still in progress)
TC 2 Input Player Name	Ask for the player name if they do not already have one input in settings.	When the high score screen pops up and the player has not manually inputted a name, they will be prompted to do so at this time.	Pending (Code is still in progress)
TC 3 Local High Scores Save	High Scores saving across sessions.	When the session ends and a new session opens, the high scores should be saved on each machine locally.	Pending (Code is still in progress)
TC 4 Correctly Save High Scores	Save scores correctly.	When the player does get a new high score, it should place the score in the appropriate position on the leaderboard with the highest score at the top.	Pending (Code is still in progress)
TC 5 High Scores Button	On the main menu scene pressing the ‘High Scores’ button will display the saved high scores.	Pressing the high scores button should direct the screen to the current high scores that are saved on that device locally.	Pending (Code is still in progress)

