

# Test Plan for Defenders of the forest

## Introduction

The purpose of this test plan document is to outline the testing approach for the Defenders of the forest application.

Test can be performed on major browsers like Chrome and Edge.

## Test Scenarios

### User Interface Testing

#### Home Page

Test Item	Description	Result
Home Page	Verify that the home screen displays options to start the game.	Successful
User Manual	Verify that the user manual is loading properly with descriptions on defenders and attackers.	Successful
Level Selection	Verify that the level selection screen is displayed with options to choose levels.	Successful

#### Game Play

Test Item	Description	Input	Expected Output	Result
Start Game	Verify that the game starts when the player clicks on the level selection button.	Click on level-1 or level-2 button	Game starts	Successful
Defender Selection	Verify that the player can select defenders from the available options.	Click on defender icon	Defender is selected	Successful
Defender Selection	Verify that the player can only select defenders when balance is available.	Click on selected defender icon	Defender is not selected	Successful
Defender Placement	Verify that the player can place defenders on the map.	Click on empty spot on the map	Defender is placed	Successful
Defender Placement	Verify that the player cannot place defenders on top of each other, on the path of the enemies, rocks, or on the trees.	Click on invalid spot	Defender is not placed	Successful

Test Item	Description	Input	Expected Output	Result
Enemy Movement	Verify that the enemies move along the path towards the player's base.	Start the game	Enemies move along the path	Successful
Enemy Defeat	Verify that the player earns coins by defeating enemies.	Defeat an enemy	Coin counter increases	Successful

## Progression System

Test Item	Description	Input	Expected Output	Result
Level 1	Progression through level 1 and confirm the player can move to the next level.	Defeat all enemies in level 1	Move to level 2	Successful
Level 2	Progression through level 2 and confirm the game ends after the player successfully defends against all waves of enemies.	Defeat all enemies in level 2	Option to go to home page or replay	Successful
Level Completion PopUp	Verify that the player gets the popup to move to the next level after successfully defending against all waves of enemies.	Defeat all enemies in the current level	Player sees the popUp	Successful
Wave Counter	Verify that the wave counter displays the current wave number.	Defeat an enemy	Wave counter increases	Successful
Coin Counter	Verify that the coin counter displays the player's current coin balance.	Defeat an enemy	Coin counter increases	Successful
Health Counter	Verify that the player's health decreases when enemies reach the end of the path.	Enemy reaches the end of the path	Player's health decreases	Successful

## Game Over

Test Item	Description	Input	Expected Output	Result
Game Over	Verify that the game ends when the player's health reaches 0.	Player's health reaches 0	Game Over screen PopuUp is displayed	Successful

Test Item	Description	Input	Expected Output	Result
Game Over PopUP	Verify that the player sees the game over popup when the game ends.	Player's health reaches 0	Game Over screen PopuUp is displayed	Successful
Replay	Verify that the player can replay the game after the game ends.	Click on replay button	Game starts again	Successful
Home Page	Verify that the player can go back to the home page after the game ends.	Click on home button	Home page is displayed	Successful