Testing Case Specification

Mystery Trivia

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# 1. Functional Test Cases

## Question Cases

| Test Case ID | TC-1 |
| --- | --- |
| Test Case Name | Answer Question Correctly |
| Priority | High |
| Description | Once the pop up question appears the tester will be given a question with four available answers. The tester must then click on the button with the correct text to make sure it recognizes the correct answer. |
| Preconditions | Tester has logged in or is playing as a guest and has chosen any category. |
| Test Steps | 1. Player collides with the lock 2. Question pop up animation is played 3. Test by clicking on the correct answer listed from the four available answers. The tester can find the correct answer listed in the console box of the unity editor. |
| Expected Results | The pop up question color changes to green showing the answer was correct, the animation will be played making the question disappear. |
| Pass/Fail Criteria | The test will pass if the expected result is displayed. The test will fail if the correct answer was chosen but did not display the answer text or change the color to green. |

| Test Case ID | TC-2 |
| --- | --- |
| Test Case Name | Answer Question Incorrectly |
| Priority | High |
| Description | Once the pop up question appears the tester will be given a question with four available answers. The tester must then click on the button with the incorrect text to make sure it recognizes that it is not a correct answer. |
| Preconditions | Tester has logged in or is playing as a guest. |
| Test Steps | 1. Player collides with the lock 2. Question pop up animation is played 3. Test by clicking on one of the incorrect answers listed from the four available answers. The tester can find the correct answer in the console to make sure to not select the correct answer. 4. Question text is changed to the answer text |
| Expected Results | The pop up question color changes to red showing the answer was incorrect, the animation will be played making the question disappear. |
| Pass/Fail Criteria | The test will pass if the expected result is displayed. The test will fail if the incorrect answer was chosen but did not display the answer text or change the color to red. |

| Test Case ID | TC-3 |
| --- | --- |
| Test Case Name | Answer Question Wait for Timer |
| Priority | High |
| Description | Once the pop up question appears the tester will be given a question with four available answers. The tester must then wait the time limit of one minute and thirty seconds to make sure the question will show an incorrect answer with text “Times Up!” and then the question should close as normal. |
| Preconditions | Tester has logged in or is playing as a guest. |
| Test Steps | 1. Player collides with lock 2. Question pop up animation is played 3. Test by not clicking any of the answers and letting the timer reach zero |
| Expected Results | The pop up question color changes to red showing that no answer was selected, the animation will be played making the question disappear. |
| Pass/Fail Criteria | The test will pass if the expected result is displayed. The test will fail if the color does not change to red or the question does not disappear. |

| Test Case ID | TC-4 |
| --- | --- |
| Test Case Name | Answer Question After Incorrect Answer |
| Priority | Medium |
| Description | The tester will now test the answer question after TC-2 or TC-3 where the answer was marked as incorrect. Answering the question correctly after an incorrect answer will be similar to TC-1 but note that Hint Points have been reduced by 10 points for each incorrect answer. |
| Preconditions | TC-2 has been tested |
| Test Steps | 1. The tester will attempt by answering the question incorrectly the first time 2. The question will disappear showing results such as test case Answer Question Incorrectly 3. The tester will attempt to answer again this time using the correct answer 4. Test multiple times by first getting one incorrect then correct, next two incorrect then correct, up until six incorrect then correct. |
| Expected Results | The pop up question will display expected results for the incorrect answer. Then when the tester answers correctly, it will display the same results for the answer correctly. For each time the question was answered wrong, they will lose ten points available from the fifty points that they can get. Answering a question incorrectly more than or equal to five times will result in zero points the next time they get the answer correct. |
| Pass/Fail Criteria | The test will pass if the expected result is displayed. The test will fail if the correct answer was chosen and they were not given the correct amount of points. |

## Guest Cases

| Test Case ID | TC-5 |
| --- | --- |
| Test Case Name | Play As Guest |
| Priority | High |
| Description | If the player does not wish to login or create an account they will still be able to play the game without saving data to the database. The play as guest option will lead them to categories where they can then choose difficulty and play as normal. |
| Preconditions | None |
| Test Steps | 1. On the login screen the user will click the play as guest button 2. After the user is a guest they will have access to try each category to make sure they have received the correct questions 3. The user will finish at least one maze to insure the hint points are carried over to the next scene |
| Expected Results | The user will be playing as a guest and will have all the same functions as a regular user except for being able to continue and they will not have access to the leaderboards. |
| Pass/Fail Criteria | The test will pass if the expected result is displayed. The test case will fail if playing as a guest does not save their previous hint points into the next maze. The test case will also fail if they do not have access to their chosen category. |

## Game Start Cases

| Test Case ID | TC-6 |
| --- | --- |
| Test Case Name | Start New Game |
| Priority | High |
| Description | Once the user has logged into the game they will be able to click the start new game to be redirected to the category scene. |
| Preconditions | User has logged into the application |
| Test Steps | 1. After the user has logged on, they will click the new game button 2. The user is redirected to the category scene |
| Expected Results | The user will be displayed a message saying loading data, then they will be taken to the category scene. |
| Pass/Fail Criteria | The test will pass if the expected result is displayed. The test will fail if they are not redirected to the category scene. |

| Test Case ID | TC-7 |
| --- | --- |
| Test Case Name | Continue |
| Priority | High |
| Description | After the user has logged on, and has started a new game before, they will be able to continue where they last left off. |
| Preconditions | User has logged into the application and they have started a maze before. |
| Test Steps | 1. After logging on, the continue button will be available to click 2. Once the user clicks continue they will be taken to where they have either first started the maze, or where their last maze save was. |
| Expected Results | The user will be taken to where their last save. The application saves at the end of each maze, so if the user completed one maze with 50 points they will be taken to the second maze with 50 points. If the same user is on maze two and has 150 points but then quits before reaching the end, the continue button will take them to the beginning of maze two with their 50 points they started with. |
| Pass/Fail Criteria | The test will pass if the expected result is displayed. The test will fail if they are not taken back to where they last had their save. |

## Teachers’ code Cases

| Test Case ID | TC-8 |
| --- | --- |
| Test Case Name | Teachers Code Invalid |
| Priority | Medium |
| Description | Entering an invalid code within the teacher code scene will display a message that the code is invalid. |
| Preconditions | The user has either logged on or play as guest and selected the teachers code category |
| Test Steps | 1. The user will attempt an invalid code |
| Expected Results | The user will be displayed an error message stating Invalid code above the input form. |
| Pass/Fail Criteria | The test will pass if the expected result is displayed. The test will fail if there is no error message or if the application accepts their invalid value. |

| Test Case ID | TC-9 |
| --- | --- |
| Test Case Name | Teachers Code Valid |
| Priority | Medium |
| Description | The tester will input a valid code where they can click submit to be taken to the first maze scene. |
| Preconditions | The user has either logged on or play as guest and selected the teachers code category |
| Test Steps | 1. The user will input a valid code 2. The user will click on submit |
| Expected Results | The user will be directed to the first maze where their questions will now be under the category of the code they entered. |
| Pass/Fail Criteria | The test will pass if the expected result is displayed. The test will fail if the user is not redirected into the maze or does not accept the valid code. |

## Login Cases

| Test Case ID | TC-10 |
| --- | --- |
| Test Case Name | Login Successful |
| Priority | Medium |
| Description | The user has entered all login credentials correctly and was able to sign in |
| Preconditions | The user has created an account and has not signed in before or chose a category |
| Test Steps | 1. The user will enter valid email and password 2. The user will click submit 3. The user will choose a category 4. The user will be directed into their first level of the maze |
| Expected Results | The user will be directed to the first maze where their questions will now be under the category of the code they entered. |
| Pass/Fail Criteria | The test will pass if the user entered the correct information when creating the account |

| Test Case ID | TC-11 |
| --- | --- |
| Test Case Name | Login with no email parameter |
| Priority | Medium |
| Description | Once the user attempts to login the user will enter a password and not an email to login in |
| Preconditions | The user has created an account |
| Test Steps | 1. The user has created an account 2. The user will login using email 3. The user will not enter their email in the email input field 4. The user will click login |
| Expected Results | 1. The user will get a message displaying “Error, incorrect email or password”. 2. The user will see the login page displayed to try again |
| Pass/Fail Criteria | The test will fail if the user did not enter the correct information when creating the account. |

| Test Case ID | TC-12 |
| --- | --- |
| Test Case Name | Login with no password parameter |
| Priority | Medium |
| Description | Once the users enters their email, they will try logging in without entering a password |
| Preconditions | The user has created an account |
| Test Steps | 1. The user will enter an email 2. The user will click login |
| Expected Results | The user will get a message displaying “Error, incorrect email or password”. |
| Pass/Fail Criteria | The test will fail if the user did not enter the correct information when creating the account. |

| Test Case ID | TC-13 |
| --- | --- |
| Test Case Name | Login with invalid email |
| Priority | Medium |
| Description | Once the user attempts to login with an email that was mistyped and not entered correctly |
| Preconditions | The user has created an account |
| Test Steps | 1. The user go to the login page  2. The will enter an invalid email  3. The user will click login |
| Expected Results | The user will get a message displaying “Error, incorrect email or password”. |
| Pass/Fail Criteria | The test will fail if the user did not enter the correct information when creating the account. |

| Test Case ID | TC-14 |
| --- | --- |
| Test Case Name | Login with invalid password |
| Priority | Medium |
| Description | The user has enter their email but mistyped their password or entered an incorrect password |
| Preconditions | The user has created an account |
| Test Steps | 1. The user will enter an email  2. The user will click login |
| Expected Results | The user will get a message displaying “Error, incorrect email or password”. |
| Pass/Fail Criteria | The test will fail if the user did not enter the correct information when creating the account. |

## Registration Cases

| Test Case ID | TC-15 |
| --- | --- |
| Test Case Name | Register Successful |
| Priority | Medium |
| Description | The user has entered email, username, and matched passwords correctly and has successfully made an account |
| Preconditions | The user did not create an account yet |
| Test Steps | 1. The user will input an email, username  2.The user will input a password  3.The user will enter the password again to confirm |
| Expected Results | The user will get a message displaying “Registering…”, and will then be redirected to the login page |
| Pass/Fail Criteria | The test will fail if the user did not enter the correct information when entering their information. |

| Test Case ID | TC-16 |
| --- | --- |
| Test Case Name | Register invalid email |
| Priority | Medium |
| Description | The user has entered an incorrect email or mistyped the email which prevented them from registering an account to the database |
| Preconditions | The user is creating an account |
| Test Steps | 1. The user will click on register  2. The user will enter an email with no ‘@’ sign or ‘.com’  3. The user will then click register |
| Expected Results | The user will get an error “Email not valid!” |
| Pass/Fail Criteria | The test will fail if the user did not enter an ‘@’ sign along with ‘.com’ within the email |

| Test Case ID | TC-17 |
| --- | --- |
| Test Case Name | Register no email parameter |
| Priority | Medium |
| Description | The user did not enter an email in the email input field parameter which will cause an error and alert the user |
| Preconditions | The user is creating an account |
| Test Steps | 1. The user will click on register  2. The user will not enter an email  3. The user will then click register |
| Expected Results | The user will get an error “Username is empty!” |
| Pass/Fail Criteria | The test will fail if the user did not enter an email and display an error |

| Test Case ID | TC-18 |
| --- | --- |
| Test Case Name | Register no username parameter |
| Priority | Medium |
| Description | The user did not enter a username in the username input field to successfully create an account that will register to the database |
| Preconditions | The user is creating an account |
| Test Steps | 1. The user will click on register  2. The user will enter a valid email “[moe@hotmail.com](mailto:moe@hotmail.com)”  3. The user will enter password  4. The user will confirm password  5. The user will then click register |
| Expected Results | The user will get an error “Username is empty!” |
| Pass/Fail Criteria | The test will fail if the user did not enter an ‘@’ sign along with ‘.com’ within the email |

| Test Case ID | TC-19 |
| --- | --- |
| Test Case Name | Register password short length |
| Priority | Medium |
| Description | The user did not enter a password that is length six or larger to meet the requirements for making an account with a secure password |
| Preconditions | The user is creating an account |
| Test Steps | 1. The user will click on register  2. The user will enter a valid email “[moe@hotmail.com](mailto:moe@hotmail.com)”  3. The user will enter a username  4. The user will enter a password length under 6  5. The user will confirm password  6. The user will click “Register” |
| Expected Results | The user will get an error “Password length too short!” |
| Pass/Fail Criteria | The test will fail if the user did not enter a password greater than or equal to six characters |

| Test Case ID | TC-20 |
| --- | --- |
| Test Case Name | Register password matching |
| Priority | Medium |
| Description | The user has entered a password that does not match confirm password input field or the user has entered confirm password that does not match password input field |
| Preconditions | The user is creating an account |
| Test Steps | 1. The user will click on register  2. The user will enter a valid email “[moe@hotmail.com](mailto:moe@hotmail.com)”  3. The user will enter a username  4. The user will enter a password length greater than or equal to six  5. The user will confirm password with one character different from the password  6. The user will click “Register” |
| Expected Results | The user will get an error “Password does not match!” |
| Pass/Fail Criteria | The test will fail if the user did not enter a password that matches confirm password |

| Test Case ID | TC-21 |
| --- | --- |
| Test Case Name | Register Failed |
| Priority | Medium |
| Description | The user did not enter some of the information correctly which will prevent a successful registration |
| Preconditions | The user has not yet created or entered their information to create an account |
| Test Steps | The user will input an invalid password or email |
| Expected Results | The user will get an error message displaying “Password does not match!”, if the password did not match, “Email not valid”, if the user did not enter an email, and lastly “Username is empty!”, if the user did not enter a username. |
| Pass/Fail Criteria | The test will fail if the user did not enter  an email in an email format. The test will fail if the user did not enter the password the same twice. The test will fail if the user did not enter a username and left the input field blank. |

## Password Cases

| Test Case ID | TC-22 |
| --- | --- |
| Test Case Name | Reset Password |
| Priority | Medium |
| Description | On the login screen there’s a “Forgot Password” button that will take you to another screen and have you enter your email that you forgot your password for and if it is valid it will send a reset password link to your email |
| Preconditions | The user already had created an account previously and entered their email they created their account with |
| Test Steps | The user will enter their email they signed up with and should receive an email to reset their password. |
| Expected Results | The user will get a message displaying “Sent Successfully, please check registered email!”. |
| Pass/Fail Criteria | The test will fail if the user did not enter the correct email but will still display the message. The test will pass if the user entered the correct email. |

## Hint Cases

| Test Case ID | TC-23 |
| --- | --- |
| Test Case Name | Hint Button |
| Priority | Medium |
| Description | In a maze scene you are able to click a button that is titled “Hint” and this will deduct 200 points off of your total points and destroy one answer of the incorrect answer and can be used three times per question |
| Preconditions | The user chooses a category and chose a difficulty level and is playing the maze stuck on a question and has enough points |
| Test Steps | The user will have more than 200 points and will click the button to destroy of the wrong answers |
| Expected Results | One of the four answer options that is incorrect will disappear |
| Pass/Fail Criteria | The test will fail if the user did not have more than or equal to 200 points. The test will pass if the user is at 200 or more points |

| Test Case ID | TC-24 |
| --- | --- |
| Test Case Name | Hint button not enough points |
| Priority | Medium |
| Description | If the player does not have anything greater than or equal to 200 points the “Hint” button will turn red |
| Preconditions | The user chooses a category and chose a difficulty level and is playing the maze stuck on a question and does not have enough points |
| Test Steps | 1. The user will be in a maze 2. The user will hit a lock in the maze 3. The user will get a pop up question 4. The user will click the “Hint” button |
| Expected Results | The “Hint” button will turn red |
| Pass/Fail Criteria | The test will fail if the user did not have more than or equal to 200 points. The test will pass if the user is at 200 or more points |

## Movement Cases

| Test Case ID | TC-25 |
| --- | --- |
| Test Case Name | Player Movement |
| Priority | High |
| Description | In a maze the player will be able to move left, right, up, and down using their arrow keys on their keyboard. |
| Preconditions | The user made an account and is logged in into a maze |
| Test Steps | 1. The user will enter their login information 2. The user will choose a category 3. The user will choose their difficulty 4. The user will be in a maze |
| Expected Results | The player object will move in the direction the arrow keys are pointing on the keyboard |
| Pass/Fail Criteria | The test will fail if the player object did  not move in the direction of the arrow keys. The test will pass if the player object moves in the direction of the arrow keys. |

## Leaderboard

| Test Case ID | TC-26 |
| --- | --- |
| Test Case Name | Leaderboard |
| Priority | High |
| Description | Leaderboard successfully shows all scores from all users |
| Preconditions | The user has to be logged in |
| Test Steps | Users login for the game, after gaining points they finish then are able to see their position on the leaderboard. |
| Expected Results | Users are able to see their position on the leaderboard, points should be stored in the leaderboard properly. |
| Pass/Fail Criteria | The test will fail if the points are not stored properly. The test will pass if the points are stored properly. |

## Player Death

| Test Case ID | TC-27 |
| --- | --- |
| Test Case Name | Player Death |
| Priority | High |
| Description | Player death is successfully recorded, and player returns to starting position |
| Preconditions | Player has to be in the maze |
| Test Steps | Users login for the game, start playing should they be hit by the enemy. |
| Expected Results | Players hit by their enemy in the maze, players should die and start over. |
| Pass/Fail Criteria | The test will fail if the player is hit by the enemy and doesn’t die. The test will pass if the player is hit by an enemy and destroyed. |

## Contact Form

| Test Case ID | TC-28 |
| --- | --- |
| Test Case Name | Contact Form |
| Priority | High |
| Description | Contact form successfully sends emails |
| Preconditions | Website has to be functional |
| Test Steps | User navigates to the website, User clicks on Contact tab, User fills out fields, User clicks submit. |
| Expected Results | Website displays, contact.html displays, all fields are successfully filled out, an email popup displays, a message gets sent to one of the creators. |
| Pass/Fail Criteria | The test will fail if the message is not going to the organizer. The test will pass if the user is able to send a message. |

## Back Button

| Test Case ID | TC-29 |
| --- | --- |
| Test Case Name | Back Button |
| Priority | Low |
| Description | Back button successfully goes back one scene |
| Preconditions | Back button has to be in the game |
| Test Steps | User registration for the game, user clicks on difficulty and chooses subject, user clicks on back button. |
| Expected Results | User registration displays and allows for login, difficulty and subject displays, and the back button sends the user back to the previous scene. |
| Pass/Fail Criteria | The test will fail if the player doesn’t see the previous scene. The test will pass if the player can move to the previous scene. |

## End scene Cases

| Test Case ID | TC-30 |
| --- | --- |
| Test Case Name | End Scene |
| Priority | High |
| Description | End scene successfully displays with score and redirection to the next level |
| Preconditions | User should able to finish level |
| Test Steps | End of the level end scene pop up with the correct point and next level button redirect to the next level |
| Expected Results | End scene shows the correct score and direction to the new level. |
| Pass/Fail Criteria | The test will fail if the player doesn’t move to the next level. The test will pass if the player is moved to the next level. |

## Difficulty selection Cases

| Test Case ID | TC-31 |
| --- | --- |
| Test Case Name | Difficulty selection normal |
| Priority | Medium |
| Description | After logging on, select normal difficulty. |
| Preconditions | User has already selected subject |
| Test Steps | 1. User selects normal from the difficulty screen |
| Expected Results | User is loaded into the first maze with questions from the first quartile of the subject array. |
| Pass/Fail Criteria | The test is passed if the expected results are matched.  The test is failed if the questions are from a different section of the subject array, the wrong subject array, the user is in a later maze, or the maze scene does not load. |

| Test Case ID | TC-32 |
| --- | --- |
| Test Case Name | Difficulty selection challenging |
| Priority | Medium |
| Description | After logging on, select challenging difficulty. |
| Preconditions | User has already selected subject |
| Test Steps | 1. User selects challenging from the difficulty screen |
| Expected Results | User is loaded into a second quartile maze with questions from the second quartile of the subject array. |
| Pass/Fail Criteria | The test is passed if the expected results are matched.  The test is failed if the questions are from a different section of the subject array, the wrong subject array, the user is in a later or earlier maze, or the maze scene does not load. |

| Test Case ID | TC-33 |
| --- | --- |
| Test Case Name | Difficulty selection hard |
| Priority | Medium |
| Description | After logging on, select hard difficulty. |
| Preconditions | User has already selected subject |
| Test Steps | 1. User selects hard from the difficulty screen |
| Expected Results | User is loaded into a third quartile maze with questions from the third quartile of the subject array. |
| Pass/Fail Criteria | The test is passed if the expected results are matched.  The test is failed if the questions are from a different section of the subject array, the wrong subject array, the user is in a later or earlier maze, or the maze scene does not load. |

| Test Case ID | TC-34 |
| --- | --- |
| Test Case Name | Difficulty selection expert |
| Priority | Medium |
| Description | After logging on select expert difficulty. |
| Preconditions | User has already selected subject |
| Test Steps | 1. User selects expert from the difficulty screen |
| Expected Results | User is loaded into the first maze with questions from the first quartile of the subject array. |
| Pass/Fail Criteria | The test is passed if the expected results are matched.  The test is failed if the questions are from a different section of the subject array, the wrong subject array, the user is in a later amaze, or the maze scene does not load. |

## Pickup Cases

| Test Case ID | TC-35 |
| --- | --- |
| Test Case Name | Boost pickup |
| Priority | Low |
| Description | In a maze scene collide with a boost pickup. |
| Preconditions | Game is in maze scene |
| Test Steps | 1. Player collides with boost pickup |
| Expected Results | 1. Player speed has increased 2. The boost sound will play |
| Pass/Fail Criteria | The test is passed if the player speed is increased.  The test is failed if player speed remains unchanged or decreases. |

| Test Case ID | TC-36 |
| --- | --- |
| Test Case Name | Chest pickup |
| Priority | Low |
| Description | In a maze scene collide with a chest. |
| Preconditions | The user is in a maze scene. |
| Test Steps | 1. The user collides with a chest. 2. The chest is destroyed. 3. The user’s hint points increase by 150. 4. The chest pickup sound plays. |
| Expected Results | The chest is gone, the user’s hint points have increased, and a sound effect plays. |
| Pass/Fail Criteria | The test is passed if all steps occur. The test is failed if the user does not gain 150 hint points, the chest remains in the scene, or the sound effect does not play. |

## Volume Cases

| Test Case ID | TC-37 |
| --- | --- |
| Test Case Name | Change volume option with slider |
| Priority | Low |
| Description | In a maze scene move the volume slider with the mouse. |
| Preconditions | The user is in a maze scene. |
| Test Steps | The user drags the volume slider to a new position. |
| Expected Results | The global volume will change to match the new position of the slider. |
| Pass/Fail Criteria | The test is passed if the global volume is adjusted to match the new slider position.  The test is failed if the new volume does not match the slider or the volume does not change at all. |

| Test Case ID | TC-38 |
| --- | --- |
| Test Case Name | Increase volume option with keyboard input |
| Priority | Low |
| Description | In a maze scene increase the volume slider with the > key. |
| Preconditions | 1. The user is in a maze scene. 2. The volume is not at maximum. |
| Test Steps | The user uses the > key to move the slider to a new position |
| Expected Results | The global volume will increase to match the new position of the slider. |
| Pass/Fail Criteria | The test is passed if the global volume is increased to match the new slider position.  The test is failed if the new volume does not match the slider value or the volume does not change at all. |

| Test Case ID | TC-39 |
| --- | --- |
| Test Case Name | Sound effect volume |
| Priority | Low |
| Description | In a maze scene trigger a sound effect. |
| Preconditions | The user is in a maze scene. |
| Test Steps | The user triggers a sound effect. |
| Expected Results | The sound effect will play at a volume that matches the global volume. |
| Pass/Fail Criteria | The test passes if the sound effect plays at an intensity that matches the global volume (including zero).  The test fails if the sound effect fails to match the global volume, including playing during a mute state or not playing while the global volume is a positive number. |

| Test Case ID | TC-40 |
| --- | --- |
| Test Case Name | Mute Button |
| Priority | Low |
| Description | In a maze scene select the mute button while the application is not muted. |
| Preconditions | The player is in a maze scene. |
| Test Steps | The user clicks the volume button in the upper right of the screen. |
| Expected Results | Global volume is reduced to zero and cannot be changed. |
| Pass/Fail Criteria | The test is passed if global volume is at zero and cannot be changed. The test is failed if the volume is at any volume besides zero or can be increased via any method other than pressing the mute button again. |

| Test Case ID | TC-41 |
| --- | --- |
| Test Case Name | Unmute Button |
| Priority | Low |
| Description | In a maze scene select the mute button while the application is muted. |
| Preconditions | 1. The player is in a maze scene. 2. The mute state is engaged |
| Test Steps | The user clicks the volume button in the upper right of the screen. |
| Expected Results | Global volume is returned to its previous state. |
| Pass/Fail Criteria | The test is passed if global volume is not at zero.  The test is failed if the volume is at zero volume or cannot be increased via any method other than pressing the mute button again. |

# 2. Non-Functional Test Cases

## Endurance cases

| Test Case ID | TC-42 |
| --- | --- |
| Test Case Name | Soak test |
| Priority | Low |
| Description | The application shall be run for 24 contiguous hours, then have TC-1 to TC-4, TC-16, TC-17, TC-19, TC-22, |
| Preconditions | 1. The player is in a maze scene. 2. The test computer is to be configured so that it will not automatically enter sleep mode. |
| Test Steps | 1. The tester is to keep the program running in an open window. 2. The test window is to be left alone for 24 contiguous hours. 3. The tester does not need to monitor the test window during this period. 4. The tester runs TC-1 to TC-4, TC-23 to TC-25, TC-27, TC-30, and TC-35 to TC-41 are to be executed. |
| Expected Results | Test cases pass as normal. |
| Pass/Fail Criteria | The test is passed if all test cases are able to proceed normally.  The test is failed if any of the test cases specified fail for any reason. |

## Responsiveness Cases

| Test Case ID | TC-43 |
| --- | --- |
| Test Case Name | Responsiveness test |
| Priority | Low |
| Description | The application shall be tested for 0.5 second or lower response time on TC-1 to TC-4, TC-16, TC-17, TC-19, TC-22, and TC-27 to TC-33. |
| Preconditions | The application is open and running within the web wrapper. |
| Test Steps | 1. The tester prepares an electronic timer configured to 0.5 seconds. 2. The tester prepares the preconditions for their chosen test case from the test cases listed in the description without starting the timer. 3. The tester starts the timer. 4. The tester proceeds with the test steps as normal. 5. The tester checks to see if the test finished before the timer went off. |
| Expected Results | All test cases clear within 0.5 seconds. |
| Pass/Fail Criteria | The test is passed if all test cases pass within 0.5 seconds or less.  The test is failed if any single test case of the set provided takes more than 0.5 seconds to execute. |

# 

# 3. Integration Test Cases

| Test Case ID | TC-44 |
| --- | --- |
| Test Case Name | User connect to the playfab |
| Priority | High |
| Description | Making sure the user login ID connects to the playfab account. |
| Preconditions | Making sure the user login ID connects to the playfab account. |
| Test Steps | The user will input an invalid password or email |
| Expected Results | Users will be able to login with their account. |

| Test Case ID | TC-45 |
| --- | --- |
| Test Case Name | Questions and answer API |
| Priority | High |
| Description | Making sure questions and answers API popup correctly. |
| Preconditions | Making sure questions and answers API popup correctly. |
| Test Steps | The user should be able to login and in the mazes able to get questions and answer |
| Expected Results | Users will be able to go throw with answer and questions |

| Test Case ID | TC-46 |
| --- | --- |
| Test Case Name | Leaderboard API |
| Priority | High |
| Description | Leaderboard successfully shows all scores from all users |
| Preconditions | Making sure the leaderboard stores points correctly, user ID shows on the leaderboard. |
| Test Steps | User will be able login and go throw the mazes and see their points on the leaderboard |
| Expected Results | Users will be able to see their points on the leaderboard |

| Test Case ID | TC-47 |
| --- | --- |
| Test Case Name | Contact API |
| Priority | Medium |
| Description | Contact form successfully sends emails one of the creator |
| Preconditions | None |
| Test Steps | Tester fills out the contact form and clicks submit. |
| Expected Results | Users will be able to send their message and admin can see their email |