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GoldFolks

*Test Cases & Test Coverage*

***Version 1.0***

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**VERSION HISTORY**

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| --- | --- | --- | --- | --- | --- |
| **Version #** | **Implemented**  **By** | **Revision**  **Date** | **Approved**  **By** | **Approval**  **Date** | **Reason** |
| 0.1 | Zachary Varella Lee Zheyu, Anil Ankitha | 23/10/2021 | Chan Shao Jing | 23/10/2021 | Initial Test Case Draft |
| 1.0 | Zachary Varella Lee Zheyu, Anil Ankitha | 30/10/2021 | Chan Shao Jing | 30/10/2021 | Final Test Case |
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# Login Screen Test Cases

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| Test Case ID: | LS-0001 | | | | |
| Test Case Name: | Register New User | | | | |
| Test Case Description: | User will launch the app and register a new account. The account must be saved inside the Firebase. | | | | |
| Pre-Conditions: | User is on the login screen upon opening the application. | | | | |
| Post-Conditions: | User account is registered in the Firebase and the user can log in with the newly created account. | | | | |
| Created By: | Zachary | Last Updated By: | | Zachary | |
| Date Created: | 16/10/2021 | Last Updated: | | 16/10/2021 | |
| Test Case No. | Description | | Expected Outcome | | Actual Output |
| 1 | User enters the login screen. | | The application will show the login screen with options for ‘Sign Up’ and ‘Login’. | | Application shows the login screen with options for ‘Sign Up’ and ‘Login’ |
| 2 | User taps ‘Sign up’ button. | | The app will navigate to the Registration screen. | | Application navigates to the Registration screen. |
| 3 | User inputs an unregistered email address an taps the ‘Send’ button. | | OTP email will be sent to the supplied email address. | | OTP email is sent to the supplied email address. |
| 4 | User enters the required ‘Name’, and ‘Password’ form fields and taps register. | | Account will register into the Firebase database. | | Account is registered in the Firebase database. |
| 5 | User attempts to login. | | App will navigate to the Main screen upon a successful login attempt. | | App navigates to the Main screen after successful login. |
| 6 | User tries to login without entering username and password | | System will prompt the user to enter the credentials for both empty fields. | | System prompts the user for credentials. |

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| Test Case ID: | LS-0002 | | | | |
| Test Case Name: | Credential Validity Checking – Registration screen | | | | |
| Test Case Description: | Email and password must meet a certain set of criteria to be considered valid. | | | | |
| Pre-Conditions: | User is on the registration screen. | | | | |
| Post-Conditions: | The app will disallow the user from creating an account. | | | | |
| Created By: | Zachary | Last Updated By: | | Zachary | |
| Date Created: | 16/10/2021 | Last Updated: | | 16/10/2021 | |
| Test Case No. | Description | | Expected Outcome | | Actual Output |
| 1 | User inputs an invalid email address and taps the ‘Register’ button. | | Error message displayed ‘Invalid email format’. | | Error message is displayed. |
| 2 | User inputs a valid email address but invalid password of less than 8 characters. | | Error message displayed ‘Invalid Email and Password’ | | Error message is displayed. |

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| Test Case ID: | LS-0003 | | | | |
| Test Case Name: | Invalid User Password | | | | |
| Test Case Description: | User will attempt to login with valid email and invalid password, and is prevented from doing so. | | | | |
| Pre-Conditions: | User is on the login screen upon opening the application. | | | | |
| Post-Conditions: | The app will disallow the user from entering the Main screen. | | | | |
| Created By: | Zachary | Last Updated By: | | Zachary | |
| Date Created: | 16/10/2021 | Last Updated: | | 16/10/2021 | |
| Test Case No. | Description | | Expected Outcome | | Actual Output |
| 1 | User enters the login screen. | | The application will show the login screen with options for ‘Sign Up’ and ‘Login’. | | Application shows login screen with options for ‘Sign Up’ and ‘Login’ |
| 2 | User taps ‘Login’ button. | | The app will navigate to the Login screen. | | App navigates to the Login screen. |
| 3 | User inputs an invalid email format | | Error message displayed ‘Invalid email format. | | Error message is displayed. |
| 4 | User inputs a valid email address ad invalid password and taps the ‘Log in’ button. | | Error message displayed ‘Invalid Email and Password’ | | Error message is displayed. |
| 5 | User enters an email that does not exist in the database | | Error message displayed ‘Email does not exist in the system’ | | Error message is displayed. |

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| Test Case ID: | LS-0004 | | | | |
| Test Case Name: | Forgot Password | | | | |
| Test Case Description: | Email should be sent to the user prompting them to reset their password. | | | | |
| Pre-Conditions: | User is on the login screen. | | | | |
| Post-Conditions: | Email is sent to reset the user’s password. | | | | |
| Created By: | Zachary | Last Updated By: | | Zachary | |
| Date Created: | 16/10/2021 | Last Updated: | | 16/10/2021 | |
| Test Case No. | Description | | Expected Outcome | | Actual Output |
| 1 | User taps the ‘Forgot password?’ button. | | The app will prompt the user for their email to send the password reset portal. | | App prompts the user for email. |
| 2 | User enters an email that does not exist and submits | | Error message displayed ‘Email does not exist in the system’ | | Error message is displayed. |
| 3 | User enters an incorrect email format | | App will display an error message ‘Invalid email format.’ | | Error message is displayed. |
| 4 | User enters a valid email and submits | | Email is sent to the user. | | Email sent successfully. |
| 5 | User changes password via the link in the email | | Changed password is saved in the database. | | Changed password is saved successfully. |

# Medication Reminders Test Cases

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| Test Case ID: | MR-0001 | | | | |
| Test Case Name: | Create Medication Reminder | | | | |
| Test Case Description: | User can create a medication reminder. | | | | |
| Pre-Conditions: | User is on the ‘Medication Reminders’ Screen. | | | | |
| Post-Conditions: | Medication Reminder successfully displayed on the app and stored in Firebase. | | | | |
| Created By: | Zachary | Last Updated By: | | Ankitha | |
| Date Created: | 16/10/2021 | Last Updated: | | 23/10/2021 | |
| Test Case No. | Description | | Expected Outcome | | Actual Output |
| 1 | User taps the ‘+’ icon to add a new reminder. | | Medication reminder entry form will expand with no information filled up in any of the entry form fields. | | Medication reminder entry form displayed. |
| 2 | User enters all required information (Name, Type, Description, Schedule). | | All information is presented as inputted by the user on the entry form. | | Information in medication reminder entry form filled. |
| 3 | User taps the ‘Add Medication Reminder’ button. | | The medication reminder will be stored in the Firebase and displayed on the ‘Medication Reminders’ screen. | | Medication reminder data stored in firebase and displayed on ‘Medication Reminders’ Screen |

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| Test Case ID: | MR-0002 | | | | |
| Test Case Name: | Edit Medication Reminder | | | | |
| Test Case Description: | User is able to edit the medication reminder | | | | |
| Pre-Conditions: | User is on the ‘Medication Reminders’ Screen. | | | | |
| Post-Conditions: | Medication Reminder information must be changed in both the Firebase and the ‘Medication Reminders’ screen. | | | | |
| Created By: | Zachary | Last Updated By: | | Zachary | |
| Date Created: | 16/10/2021 | Last Updated: | | 16/10/2021 | |
| Test Case No. | Description | | Expected Outcome | | Actual Output |
| 1 | User taps on the ‘Edit’ button of a Medication Reminder card on the Medication Reminders Screen. | | Medication reminder entry form will expand all information filled up according to the Medication Reminder’s data. | | Entry form is opened with all information filled up correctly. |
| 2 | User changes all of the entry fields. | | All information is presented and changed as inputted by the user on the entry form. | | Changed information is reflected correctly in the form. |
| 3 | User taps the ‘Edit Medication Reminder’ button. | | The medication reminder will be updated in the Firebase and the updated information is displayed on the Medication Reminder screen. | | Updated information is saved correctly and displayed on the screen. |

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| Test Case ID: | MR-0003 | | | | |
| Test Case Name: | Delete Medication Reminder | | | | |
| Test Case Description: | User is able to delete the medication reminder | | | | |
| Pre-Conditions: | User is on the ‘Medication Reminders’ Screen. | | | | |
| Post-Conditions: | Medication Reminder information must be deleted from both the Firebase and the ‘Medication Reminders’ screen. | | | | |
| Created By: | Zachary | Last Updated By: | | Zachary | |
| Date Created: | 16/10/2021 | Last Updated: | | 16/10/2021 | |
| Test Case No. | Description | | Expected Outcome | | Actual Output |
| 1 | User taps on the ‘Delete’ button of a Medication Reminder card on the Medication Reminders Screen. | | A confirmation dialog will appear, asking the user to confirm the deletion of the Medication Reminder. | | Confirmation dialog appears. |
| 2 | User taps ‘Yes’. | | The Medication Reminder is deleted from both the Firebase and the Medication Reminders screen. | | Reminder is deleted successfully from both the app and the database. |

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| Test Case ID: | MR-0003 | | | | |
| Test Case Name: | List view of Reminders | | | | |
| Test Case Description: | The app should display all available medication reminders in a list view. | | | | |
| Pre-Conditions: | User is on the ‘Medication Reminders’ Screen. | | | | |
| Post-Conditions: | - | | | | |
| Created By: | Zachary | Last Updated By: | | Zachary | |
| Date Created: | 16/10/2021 | Last Updated: | | 16/10/2021 | |
| Test Case No. | Description | | Expected Outcome | | Actual Output |
| 1 | Fetch from Firebase | | The app should fetch all stored medication reminders and load them in a list view on the ‘Medication Reminders’ screen. | | Full list of medication reminders is fetched and displayed. |
| 2 | Display | | Medication reminders should be displayed as cards, with options to edit and delete the specified reminder. A ‘+’ button should be displayed to allow the user to create a new reminder. | | Display is correct according to expected outcome. |

# Mental Math Game Test Cases

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| Test Case ID: | MM-0001 | | | | |
| Test Case Name: | User Input | | | | |
| Test Case Description: | The user input in the ‘Mental Math’ game will produce a new randomized question and answers and update the score accordingly. | | | | |
| Pre-Conditions: | User has started the ‘Mental Math’ game. | | | | |
| Post-Conditions: | - | | | | |
| Created By: | Zachary | Last Updated By: | | Zachary | |
| Date Created: | 16/10/2021 | Last Updated: | | 16/10/2021 | |
| Test No. | Description | | Expected Outcome | | Actual Output |
| 1 | User taps on an answer. | | A new randomized math problem will be displayed. All the answer choices must be unique with no duplicates. | | Math problems and questions are randomized. No duplicate answers. |
| 2 | Wrong answer selected | | A new randomized math problem with answers is displayed, and the score will remain the same. | | Score remains the same while the problem and answers change. |
| 3 | Correct answer selected | | A new randomized math problem with answers is displayed, and the score will be updated. | | Score changes the same and the problem and answers change. |

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| Test Case ID: | MM-0002 | | | | |
| Test Case Name: | Gameplay | | | | |
| Test Case Description: | Upon starting the ‘Mental Math’ game, the user is able to play from beginning to end. | | | | |
| Pre-Conditions: | User is on the ‘Mental Math’ main screen. | | | | |
| Post-Conditions: | User is on the ‘Play again’ screen and high score is sent to the database. | | | | |
| Created By: | Zachary | Last Updated By: | | Zachary | |
| Date Created: | 16/10/2021 | Last Updated: | | 16/10/2021 | |
| Test No. | Description | | Expected Outcome | | Actual Output |
| 1 | User taps on the ‘Play’ button to start playing. | | The app will navigate to the game screen and begins the game. | | App navigates to the game screen and starts the game. |
| 2 | User taps on the answers as prompted. | | A new randomized math problem with answers is displayed and the score will update accordingly when the user taps the correct answer. | | Game plays according to the expected outcome. |
| 3 | Time runs out | | The game will exit and the app will navigate the user to the ‘Play again’ screen. The user’s current score and best score must be displayed correctly. | | Game successfully switches to the ‘Play again’ screen, with the user’s current score and best score displayed. |
| 4 | User beats best score | | The best score and current score must be updated upon timeout on the ‘Play again’ screen. The user’s score will be sent to the Firebase database for persistent storage. | | Best score is updated accordingly on the screen and in the database. |

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| Test Case ID: | MM-0003 | | | | |
| Test Case Name: | Exiting Game | | | | |
| Test Case Description: | User is able to exit the game. | | | | |
| Pre-Conditions: | User is currently playing the ‘Mental Math’ game. | | | | |
| Post-Conditions: | User has exited the game and returned to the ‘Mental Math’ main screen. | | | | |
| Created By: | Zachary | Last Updated By: | | Zachary | |
| Date Created: | 16/10/2021 | Last Updated: | | 16/10/2021 | |
| Test Case No. | Description | | Expected Outcome | | Actual Output |
| 1 | User exits the game early by using the system back button mid-game. | | The app prompts the user with a confirmation dialog. Upon selecting yes, navigates back to the ‘Mental Math’ main screen, with no changes made to the Firebase database. | | Confirmation dialog is shown, and upon exit no |
| 2 | User exits the game after playing for the full duration of the game. | | If the user has beaten their best score, the data will be sent to the Firebase upon completion of the game. The app will navigate back to the ‘Mental Math’ main screen. | | Application navigates back to ‘Mental Math’ main screen. |

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| Test Case ID: | MM-0004 | | | | |
| Test Case Name: | Restart Game | | | | |
| Test Case Description: | User is able to restart the game after playing. | | | | |
| Pre-Conditions: | User has completed the full duration of the ‘Mental Math’ game. | | | | |
| Post-Conditions: | The game has restarted with a 0 score and the full duration of the timer. | | | | |
| Created By: | Zachary | Last updated By: | | Ankitha | |
| Date Created: | 16/10/2021 | Last Updated: | | 23/10/2021 | |
| Test Case No. | Description | | Expected Outcome | | Actual Output |
| 1 | User taps on the ‘Play again’ button. | | The app will reset both the score and timer fields, before starting the game again. | | Game is restarted with reset score and timer fields |

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| Test Case ID: | MM-0005 | | | | |
| Test Case Name: | Tutorial | | | | |
| Test Case Description: | User is able to view the series of steps in the tutorial page. | | | | |
| Pre-Conditions: | User is currently in the ‘Mental Math’ main screen. | | | | |
| Post-Conditions: | User completes the tutorial, either by finishing all the steps or by exiting early. | | | | |
| Created By: | Zachary | Last Updated By: | | Ankitha | |
| Date Created: | 16/10/2021 | Last Updated: | | 23/10/2021 | |
| Test Case No. | Description | | Expected Outcome | | Actual Output |
| 1 | User taps on the ‘Tutorial’ button. | | The app will navigate to the game’s ‘Tutorial’ screen, listing a set of descriptions regarding the key functionality of the game | | App navigates to ‘Tutorial’ screen. |
| 2 | User swipes left or right | | The Tutorial page will navigate to the adjacent step in the tutorial. | | Pages adjacent are displayed. |
| 3 | User taps on the page indicator at the bottom of the screen. | | The Tutorial page will jump to the tapped step. | | Tutorial pages are skipped to the tapped step. |
| 4 | User taps ‘Skip’ | | The app will exit the Tutorial. | | App exits the Tutorial Screen |
| 5 | User taps ‘Done’ upon reaching the last step of the tutorial. | | The app exits the Tutorial. | | App exits the Tutorial Screen |

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| Test Case ID: | MM-0006 | | | | |
| Test Case Name: | Leaderboard | | | | |
| Test Case Description: | User is able to view the leaderboard, displaying a list of all players on the leaderboard as well as the player’s score in comparison highlighted. | | | | |
| Pre-Conditions: | User is currently in the ‘Mental Math’ main screen. | | | | |
| Post-Conditions: | User can view the Leaderboard for the Simon Says game. | | | | |
| Created By: | Zachary | Last Updated By: | | Ankitha | |
| Date Created: | 16/10/2021 | Last Updated: | | 23/10/2021 | |
| Test Case No. | Description | | Expected Outcome | | Actual Output |
| 1 | User taps on the ‘Leaderboard’ button. | | The app navigates to the Leaderboard screen. | | App navigates to Leaderboard screen. |
| 2 | Display | | Leaderboard screen should display a list of all users and their best score, in descending order. The user’s current rank should be highlighted in blue. | | Leaderboard displays screen of users and respective scores. |

# Simon Says Game Test Cases

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| Test Case ID: | SS-0001 | | | | |
| Test Case Name: | Randomized Pattern | | | | |
| Test Case Description: | The game will choose a random square to add to the pattern. | | | | |
| Pre-Conditions: | User has just started the ‘Simon Says’ game. | | | | |
| Post-Conditions: | The next square added to the pattern will be randomized. | | | | |
| Created By: | Zachary | Last Updated By: | | Ankitha | |
| Date Created: | 16/10/2021 | Last Updated: | | 23/10/2021 | |
| Test Case No. | Description | | Expected Outcome | | Actual Output |
| 1 | Upon starting the game, a random square must be chosen as the initial square in the pattern. | | The selected random square will change to a white color before reverting back to the original color. | | Selected square changes color and reverts to original color. |
| 2 | User taps the correct square, and a new random square is added to the pattern. | | App will display the pattern in sequential order, with all squares in the pattern changing to white and back correctly before the new random square in the pattern does the color change animation. | | App displays pattern in sequential order. |

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| Test Case ID: | SS-0002 | | | | |
| Test Case Name: | Gameplay | | | | |
| Test Case Description: | User is able to play the Simon Says game from start to finish. | | | | |
| Pre-Conditions: | User is on the ‘Simon Says’ main screen. | | | | |
| Post-Conditions: | User is on the ‘Play again’ screen and high score is sent to the database. | | | | |
| Created By: | Zachary | Last Updated By: | | Ankitha | |
| Date Created: | 16/10/2021 | Last Updated: | | 23/10/2021 | |
| Test Case No. | Description | | Expected Outcome | | Actual Output |
| 1 | User taps the ‘Play’ button on the ‘Simon Says’ main screen. | | The app will reset the points and lives fields, and then choose an initial random square to display as the start of the pattern. | | App reset the points and life fields. |
| 2 | User plays the game by tapping on the correct square. | | Points will increase by 1 and lives will remain the same. The app should then display an additional random square in the pattern when animating. | | App displays additional random square in sequence with increase in points. |
| 3 | User taps on an incorrect square. | | Points will remain the same while lives decrements by 1. The app will repeat the animation without adding a new random square to the pattern. | | App repeats previous pattern and lives decrement by 1. |
| 4 | User taps an incorrect square 4 times. | | The game will exit, saving the user’s high score if they have beaten their previous record. The app should navigate to the ‘Try again’ screen, which is updated with the user’s score and their best score. | | Game is exited and app navigates to Try again screen. |

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| Test Case ID: | SS-0003 | | | | |
| Test Case Name: | Exiting Game | | | | |
| Test Case Description: | User is able to exit the game. | | | | |
| Pre-Conditions: | User is currently playing the ‘Simon Says’ game. | | | | |
| Post-Conditions: | User has exited the game and returned to the ‘Simon Says’ main screen. | | | | |
| Created By: | Zachary | Last Updated By: | | Ankitha | |
| Date Created: | 16/10/2021 | Last Updated: | | 23/10/2021 | |
| Test Case No. | Description | | Expected Outcome | | Actual Output |
| 1 | User tries to exit the game early by using the system back button mid-game. | | The app will show an alert dialog confirming the decision to exit the game. Accepting the dialog navigates back to the ‘Simon Says’ main screen, with no changes made to the Firebase database. | | Alert dialog displayed to exit the game. |
| 2 | User exits the game after completing the game by tapping the ‘Exit’ button on the ‘Try Again’ screen. | | If the user has beaten their best score, the data will be sent to the Firebase upon completion of the game. The app will navigate back to the ‘Simon Says’ main screen. | | App navigates to ‘Simon Says’ main screen. |

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| Test Case ID: | SS-0004 | | | | |
| Test Case Name: | Restart Game | | | | |
| Test Case Description: | User is able to restart the game after playing. | | | | |
| Pre-Conditions: | User has completed the full duration of the ‘Simon Says’ game. | | | | |
| Post-Conditions: | The game has restarted with 0 score and 3 lives. | | | | |
| Created By: | Zachary | Last Updated By: | | Ankitha | |
| Date Created: | 16/10/2021 | Last Updated: | | 23/10/2021 | |
| Test Case No. | Description | | Expected Outcome | | Actual Output |
| 1 | User taps on the ‘Play again’ button. | | The app will reset both the score and lives fields, before starting the game again. | | Games is restarted and App resets scores and lives field. |

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| Test Case ID: | SS-0005 | | | | |
| Test Case Name: | Tutorial | | | | |
| Test Case Description: | User is able to view the series of steps in the tutorial page. | | | | |
| Pre-Conditions: | User is currently in the ‘Simon Says’ main screen. | | | | |
| Post-Conditions: | User completes the tutorial, either by finishing all of the steps or by exiting early. | | | | |
| Created By: | Zachary | Last Updated By: | | Ankitha | |
| Date Created: | 16/10/2021 | Last Updated: | | 23/10/2021 | |
| Test Case No. | Description | | Expected Outcome | | Actual Output |
| 1 | User taps on the ‘Tutorial; button. | | The app will navigate to the game’s ‘Tutorial’ screen, listing a set of descriptions regarding the key functionality of the game | | App navigates to Tutorial screen. |
| 2 | User swipes left or right | | The Tutorial page will navigate to the adjacent step in the tutorial. | | Adjacent pages are displayed. |
| 3 | User taps on the page indicator at the bottom of the screen. | | The Tutorial page will jump to the tapped step. | | Tutorial pages are skipped to the tapped step. |
| 4 | User taps ‘Skip’ | | The app exits the Tutorial. | | App exits the Tutorial screen. |
| 5 | User taps ‘Done’ upon reaching the last step of the tutorial. | | The app exits the Tutorial. | | App exits the Tutorial screen. |

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| Test Case ID: | SS-0006 | | | | |
| Test Case Name: | Leaderboard | | | | |
| Test Case Description: | User is able to view the leaderboard, displaying a list of all players on the leaderboard as well as the player’s score in comparison highlighted. | | | | |
| Pre-Conditions: | User is currently in the ‘Simon Says’ main screen. | | | | |
| Post-Conditions: | User can view the Leaderboard for the Simon Says game. | | | | |
| Created By: | Zachary | Last Updated By: | | Ankitha | |
| Date Created: | 16/10/2021 | Last Updated: | | 23/10/2021 | |
| Test Case No. | Description | | Expected Outcome | | Actual Output |
| 1 | User taps on the ‘Leaderboard’ button. | | The app navigates to the Leaderboard screen. | | App navigates to leaderboard screen. |
| 2 | Display | | Leaderboard screen should display a list of all users and their best score, in descending order. The user’s current rank should be highlighted in blue. | | Leaderboard screen displays users and respective best score. |

# Navigation

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| Test Case ID: | NV-0001 | | | | |
| Test Case Name: | Initial App Launch Login Navigation | | | | |
| Test Case Description: | User launches the app for the very first time and is presented with the ‘Login’ screen. | | | | |
| Pre-Conditions: | User has just launched the app for the first time. | | | | |
| Post-Conditions: | App should navigate to the ‘Login’ screen. | | | | |
| Created By: | Zachary | Last Updated By: | | Ankitha | |
| Date Created: | 16/10/2021 | Last Updated: | | 23/10/2021 | |
| Test Case No. | Description | | Expected Outcome | | Actual output |
| 1 | User launches app for the first time. | | Navigate to the ‘Login’ screen. | | Login screen is displayed |
| 2 | User closes the app before logging in and launches the app again. | | App must still navigate to the ‘Login’ screen and not the ‘Main’ screen. | | App navigated to login screen. |
| 3 | User logs in. | | Navigate to the ‘Main’ screen with the correct user details supplied to the app. | | App navigated to main screen |
| 4 | User closes the app after logging in and launches the app again. | | App will navigate directly to the ‘Main’ screen. | | Main screen is displayed |
| 5 | User uses the software Back button on the ‘Login’ screen. | | The app will remain on the ‘Login’ screen. | | Login screen is displayed |

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| Test Case ID: | NV-0002 | | | | |
| Test Case Name: | Main Menu Navigation | | | | |
| Test Case Description: | User is able to navigate to tap each button and utilize its functionality: ‘Medication Reminders’, ‘Cognitive Games’, ‘Exercise Videos’, and ‘Logout’ buttons. | | | | |
| Pre-Conditions: | User has logged in and is on the Main screen. | | | | |
| Post-Conditions: | - | | | | |
| Created By: | Zachary | Last Updated By: | | Ankitha | |
| Date Created: | 16/10/2021 | Last Updated: | | 23/10/2021 | |
| Test Case No. | Description | | Expected Outcome | | Actual Output |
| 1 | User taps on Medication Reminders | | Navigate to the ‘Medication Reminders’ screen. | | Medication Reminders screen is displayed |
| 2 | User taps on Cognitive Games | | Navigate to the ‘Game Selection’ screen | | Game Selection screen is displayed |
| 3 | User taps on Exercise Videos | | Navigate to the ‘Exercise Videos’ screen | | Exercise Videos screen is displayed |
| 4 | User takes on ‘Logout’ | | User is logged out successfully and the app navigates to the ‘Login’ screen. | | Displays Login screen |
| 5 | User tries to use to software back button on the Main screen. | | The app will not navigate out of the Main screen back to the Login screen. | | Main screen is displayed. |

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| --- | --- | --- | --- | --- | --- |
| Test Case ID: | NV-0003 | | | | |
| Test Case Name: | Game Selection Navigation | | | | |
| Test Case Description: | User is able to select one of the two games – Mental Math or Simon Says | | | | |
| Pre-Conditions: | User has logged in and is on the ‘Game Selection’ screen after tapping the ‘Cognitive Games’ button on the Main screen. | | | | |
| Post-Conditions: | - | | | | |
| Created By: | Zachary | Last Updated By: | | Ankitha | |
| Date Created: | 16/10/2021 | Last Updated: | | 23/10/2021 | |
| Test Case No. | Description | | Expected Outcome | | Actual Output |
| 1 | User taps on Mental Math | | Navigate to the ‘Mental Math’ main screen. | | Mental math main screen is displayed |
| 2 | User taps on Simon Says | | Navigate to the ‘Simon Says’ main screen. | | Simon Says main screen is displayed |
| 3 | User taps the back button | | Navigate back to the Main screen | | Main screen is displayed. |
| 4 | User uses the software back button. | | Navigate back to the Main screen | | Main screen is displayed |
| 5 | Correct Display upon enter | | Game selection screen should display both games in a vertical list view. | | Games are displayed in vertical list view |

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| Test Case ID: | NV-0004 | | | | |
| Test Case Name: | Game Option Navigation | | | | |
| Test Case Description: | Within a selected game, the user must be able to use the Play, Tutorial, and Leaderboard buttons. | | | | |
| Pre-Conditions: | User has selected either the ‘Mental Math’ or ‘Simon Says’ games. | | | | |
| Post-Conditions: | - | | | | |
| Created By: | Zachary | Last Updated By: | | Ankitha | |
| Date Created: | 16/10/2021 | Last Updated: | | 23/10/2021 | |
| Test Case No. | Description | | Expected Outcome | | Actual Outcome |
| 1 | User taps on Play | | Load into the selected game | | Selected game is displayed. |
| 2 | User taps on Tutorial | | Navigate to the Tutorial screen for the selected game | | Tutorial screen is displayed |
| 3 | User taps on Leaderboard | | Navigate to the Leaderboard screen for the selected game | | Leaderboard screen is displayed |
| 4 | User taps the back button | | Navigate back to the Main screen | | Main screen is displayed |
| 5 | User uses the software back button. | | Navigate back to the Main screen | | Main screen is displayed |

# Exercise Video Screen Test Cases

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| --- | --- | --- | --- | --- | --- |
| Test Case ID: | EV-0001 | | | | |
| Test Case Name: | Display Navigation | | | | |
| Test Case Description: | Upon entering the ‘Exercise Video’ screen, the user must be displayed with a list of exercise videos separated into three categories – Upper Body, Lower Body, and Aerobics. | | | | |
| Pre-Conditions: | User has entered the Exercise Video screen. | | | | |
| Post-Conditions: | User is able to switch between categories and select a video from the list. | | | | |
| Created By: | Zachary | Last Updated By: | | Ankitha | |
| Date Created: | 16/10/2021 | Last Updated: | | 23/10/2021 | |
| Test Case No. | Description | | Expected Outcome | | Actual Outcome |
| 1 | User taps on a category | | Load the list of all videos under that category | | Display all videos under the category |
| 2 | User swipes left or right on the screen | | Navigate to the adjacent category and load the list of all videos under that category | | Display videos in that category. |
| 3 | User taps on a video | | Fetch the video from YouTube and launch it. | | Display selected YouTube video |
| 4 | User taps on the back button on the Video player screen. | | Navigate back to the ‘Exercise Video’ screen with all videos loaded correctly. | | Exercise video screen is displayed |
| 5 | User taps the back button | | Navigate back to the Main screen | | Main screen is displayed |
| 6 | User uses the software back button. | | Navigate back to the Main screen | | Main screen is displayed |

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| --- | --- | --- | --- | --- | --- |
| Test Case ID: | EV-0002 | | | | |
| Test Case Name: | Video Controls | | | | |
| Test Case Description: | The user selects a video from the ‘Exercise Video’ screen and the system must display the video with controls to Stop, Pause, and Restart. | | | | |
| Pre-Conditions: | User has entered the Exercise Video screen. | | | | |
| Post-Conditions: | Selected video loads with video controls. | | | | |
| Created By: | Zachary | Last Updated By: | | Ankitha | |
| Date Created: | 16/10/2021 | Last Updated: | | 23/10/2021 | |
| Test Case No. | Description | | Expected Outcome | | Actual Outcome |
| 1 | User taps on a video from the video list. | | Fetch the video from YouTube and display it on the screen. | | Display selected YouTube video |
| 2 | User taps the Pause button | | Video will stop playback, Pause icon will change to Play icon. | | Video is paused and pause icon is changed to play icon. |
| 3 | User taps the Play button | | Video will resume playback, Play icon will change to Pause icon. | | Video is played, play icon is changed to pause icon. |
| 4 | User drags on the video navigation bar. | | Video will jump to that point in the video. | | Video at that timing is displayed. |
| 5 | User taps the back button | | Navigate back to the Main screen | | Main screen is displayed |

# Requirements Test Coverage Report

|  |  |  |  |
| --- | --- | --- | --- |
| **Requirement** | **Total Requirements:** | **Covered:** | **Not Covered:** |
| User Authentication | 10 | 10 | 0 |
| Home Screen | 2 | 2 | 0 |
| Medication Reminder Mode | 2 | 2 | 0 |
| Cognitive Games Mode | 2 | 2 | 0 |
| Mental Math Game Screen | 5 | 5 | 0 |
| Simon Says Game Screen | 5 | 5 | 0 |
| Exercise Video Screen | 3 | 3 | 0 |
| **Total** | 29 | 29 | 0 |

**Covered Test Cases:**

1. User authentication works as specified in the SRS.
2. Home screen displays the correct information.
3. Medication reminders work as specified.
4. Cognitive game selection displays the correct information.
5. Mental Math game works as specified.
6. Simon Says game works as specified.
7. Exercise Video screen works as specified.