SDSA Acceptance Test Plan

## Login/Database System

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| **ID** | **Test Description** | **Method/Expected Result** | **Result** | **FR(s) Covered** | **NFR(s) Covered** | **Pass?** |
| 1 | Can the clinician log in using the CORRECT details (connected to internet). | Enter the correct email and password into the respective text fields. Submitting these results will log the clinician in to the application and display a message to inform the user that device is ready to run the SDSA tests. | Successful login takes the clinician to the next screen to enter patient details and select nationality. | 31 | 17 | ✓ |
| 2 | What happens when a user attempts to log in with INCORRECT details (connected to internet). | Attempt to log in using incorrect email and password. This should return an error message telling the user that the details are unknown and to try again. | User shown error message saying “Authentication Failed”, can’t progress further. | 31 | N/A | ✓ |
| 3 | Will the clinician be able to log in without an internet connection. | Attempt to log in when the device ISN’T connected to the internet (log in details used are irrelevant). Should return an error message stating that the account database cannot be accessed. | User cannot progress further, no error message shown. | N/A | N/A | ~ |
| 4 | Is the clinician able to add patient details to the database to store results (WITH internet connection). | Before the tests the user can enter details for the patient, fill in these details and select next. The app should return a message that the patient details have been saved successfully and proceed to the tests. |  | 30 | 13 |  |
| 5 | Is the clinician able to add patient details to the database to store results (WITHOUT internet connection). | Before the tests the user can enter details for the patient, fill in these details and select next. The app should return an error message saying that the patient’s results were unable to be saved to the database. |  | 30 | 13 |  |
| 6 | Can the clinician change the country/language preferences from the login screen | Select the country dropdown menu and select a different country. This should return a message confirming the changes along with the respective road signs and language being changed appropriately. | Different localities e.g. Europe, can be selected however alternative languages and road signs are not yet implemented. | 31 | N/A | X |

## Dot Cancellation Matrix

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| --- | --- | --- | --- | --- | --- | --- |
| **ID** | **Test Description** | **Method/Expected Result** | **Result** | **FR(s) Covered** | **NFR(s) Covered** | **Pass?** |
| 6 | Check whether the dot cancellation test is displayed correctly. | Start-up the dot cancellation test and attempt to select all clusters of 4. Dots should be clearly displayed with clusters selected by the user being highlighted and can also be deselected. | Dot matrix displayed correctly with the user being able to highlight dot clusters. | 5, 6 | 4,6 | ✓ |
| 7 | Check whether dot cancellation test functions correctly. | Start-up the dot cancellation test and complete within the time limit to the best of your ability, once the test has been completed submit your results. | Dot matrix test functions as intended with the user being able to highlight dot clusters and the time limit being enforced. | N/A | N/A | ✓ |

## Road Sign Recognition (RSR)

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| **ID** | **Test Description** | **Method/Expected Result** | **Result** | **FR(s) Covered** | **NFR(s) Covered** | **Pass?** |
| 8 | Check whether the RSR test is set out correctly. | Start-up the RSR test and view the layout. The road signs and situations should be displayed on screen as set out in the requirements. This will include a single situation picture with multiple road signs being displayed for the user. | RSR test displayed as intended with a single situation being shown and multiple road signs. Navigation and submission buttons displayed. | 10, 11, 12 | 7 | ✓ |
| 9 | Check whether the RSR test functions correctly | Start-up the RSR test and complete it following the rules. Situations should be able to be paired with the respective road sign, situations can be navigated using arrows. Choices can be revisited and changed if necessary. | User can pair road signs with situations, user can overwrite previous decisions if they change their mind. Once test completed user can submit answers. Time limit of 3 minutes enforced. Road signs can be matched multiple times. | 13 | 8 | ✓ |

## Square Matrices Directions & Square Matrices Compass

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| **ID** | **Test Description** | **Method/Expected Result** | **Result** | **FR(s) Covered** | **NFR(s) Covered** | **Pass?** |
| 10 | Check if both the matrices tests are set out correctly. | Start-up each test individually, both tests should have a very similar layout. The tests should display a grid with the axis labelled with appropriate symbols matching the SDSA grid with a picture being displayed to the side. | Both matrices test grids are displayed, the user is then shown a series of situation cards which they can enter into a space on the grid. | 16 | 9, 10 | ✓ |
| 11 | Check both matrices tests to see if they function correctly. | Start-up each test and complete them following the SDSA rules. An image will be displayed which can then be assigned to a space on the grid by the user, this process should continue until grid is filled at which point the user should submit their results using a button. | Both matrices tests function as intended, the user can place the cards into spaces on the grid, when all cards have been placed the user score is calculated. Time limit is enforced with any additional card placements after 5 minutes not counting towards final score.  Matrices compass contains a discard pile for non-matching cards. No submit button | 17, 18 | N/A | ✓ |

## Trail Making Test

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| **ID** | **Test Description** | **Method/Expected Result** | **Result** | **FR(s) Covered** | **NFR(s) Covered** | **Pass?** |
| 12 | Check to see if trail making test is displayed correctly | Start-up the trail making test and view the layout. It should be a series of numbered circles placed around the screen, they should not be overlapping, be equal size and no repeating numbers. | Trail making test displayed correctly, user is shown a grid of numbered nodes ranging from 1 – 24. Once a correct node is selected it disappears. | 22 | 11 | ✓ |
| 13 | Check to see if trail making test | Start-up the trail making test and complete it following the SDSA rules. Select the dots in ascending numerical order, if a correct dot is selected it will disappear otherwise it will remain visible, once all dots have been correctly selected the test can advance to the next stage. | User can select nodes, if a correct dot is selected it vanishes. If the user selects an incorrect node a false positive is registered. Time is monitored. | 23, 24 | N/A | ✓ |

## General Application

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| **ID** | **Test Description** | **Method/Expected Result** | **Result** | **FR(s) Covered** | **NFR(s) Covered** | **Pass?** |
| 14 | Testing to see if the app is responsive to different multi-touch gestures. | On each screen of the application test a few gestures such as pinching, swiping and scrolling. The application should not respond to these actions and not cause any errors. | Program specifically only responds to click motions as intended, other gestures do not effect formatting or test order. | N/A | N/A | ✓ |
| 15 | Can tests be skipped. | When on a test if a skip button is visible select it. Application should display an error message saying current test is not complete. Tests should be given in the correct order as described in the SDSA manual. | Tests order cannot be altered by the patient. | 27 | N/A | ✓ |
| 16 | Check what happens when test time limit is reached. | Complete the series of tests and on each one wait until the time limit is completed, the application should not prevent the user from completing the test beyond the time limit. | When a time limit is reached in game additional answers don’t count towards final score. | 8, 14, 19 | 2 | ✓ |
| 17 | Final decision calculated using the SDSA | Complete the series of tests and make sure the individual scores have been submitted. A final result should be displayed at the end of the test with a pass/fail decision. | Final decision calculated using the SDSA algorithm and displayed to the clinician | 1, 9, 15, 20, 21, 25 | 1 | ✓ |
| 18 | intermediate screens displaying SDSA rules | Before each game there should be an intermediary screen displaying the rules of the game to the user along with the time limit. | Intermediate screens displayed in between each tests explaining the rules to the patient. | 4 | 3 | ✓ |