Testing Strategy

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UI Testing (Espresso):-

Main screen Current Incidents button – PASSED

Main screen Planned Roadwork button – PASSED

Current Incidents List Item Touch – PASSED

Planned Roadworks List Item Touch – PASSED

Search Icon Touch – PASSED

Calendar Icon Touch – PASSED

Clickable Link Touch – PASSED

Espresso was implemented and used on each UI element to ensure that the element is fully functional and does what it is created to do. Espresso was used as it contains the feature of waiting for any current AsyncTasks to finish, this allows it to test the lists as they trigger an AsyncTask and do not load immediately. All UI elements that are implemented were tested by way of Espresso 2.2.2 and passed.

Black Box Testing (Non-Functional):-

Test: Tester with no software knowledge or prior knowledge of app layout was asked to reach the Planned Roadworks list and search for roadworks starting on the 30th of March.

Positive test scenario: Tester navigates to the correct list and finds the calendar search with no outside help.

Negative test scenario: Tester fails to navigate to the correct list and/or cannot find the calendar search icon.

Expected outcome: Tester navigates to correct list and finds calendar icon with no outside help or instruction.

Actual outcome: Tester navigated to the correct list but failed to find the calendar icon without outside help – FAILED

Change: Changed the calendar icon to a bolder icon to draw attention towards it.

Black Box Testing (Regression Testing):-

Test: Tester with no software knowledge or prior knowledge of app layout was asked to reach the Planned Roadworks list and search for roadworks starting on the 30th of March.

Positive test scenario: Tester navigates to the correct list and finds the calendar search with no outside help.

Negative test scenario: Tester fails to navigate to the correct list and/or cannot find the calendar search icon.

Expected outcome: Tester navigates to correct list and finds calendar icon with no outside help or instruction.

Actual outcome: Tester navigated to the correct list and found the calendar icon with no guidance – PASSED

Black Box Testing (Functional):-

Test: Tester with some software development experience is asked to ensure the list items clicked and the map that comes up is functional.

Positive test scenario: Tester concludes that the app is working as intended.

Negative test scenario: Tester concludes the app is not working as intended and is faulty.

Expected outcome: The tester uses the app and concludes that the map function is working as intended.

Actual outcome: Tester used list items to access map functions several times and came to conclusion the app is working as intended – PASSED

Usability Testing:

Test: App was given to tester to interact with, app was built on android device to fully replicate the user experience instead of using an emulator.

Outcome: Tester found the app easy to use and agreed that it performs the task it was created to achieve – PASSED