Test Report: Project Title

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1 Revision History

Date	Version	Notes
Date 1	1.0	Notes
Date 2	1.1	Notes

2 Symbols, Abbreviations and Acronyms

symbol	description
T	Test

[symbols, abbreviations or acronyms – you can reference the SRS tables if needed —SS]

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3 Functional Requirements Evaluation

Tests taken from V and V Plan section 5.1 are evaluated here and the corresponding section names are used as well.

3.1 Start Screen

Start screen covers functional requirements 1-5 from the SRS as all those requirements are related to the inputs and functionality that exists in the program before any processing or output is shown

Preliminary Information Tests

1. preliminary-information-test-1

   Control: Automatic

   Initial State: No input in the start screen

   Input: Start Location

   Desired output: Status Message stating if the start Location was accepted

   Actual Output: No status message found

   Result: Test case failed as the app failed to display a popup of location being validated.

   Impact: The app will assume the use of valid start location as input as the core use of this app is to find the cost of trips not validate locations it is given.

2. preliminary-information-test-2

   Control: Automatic

   Initial State: No input in the start screen

   Input: Location of the Destination

Output: Status Message stating if the Location was accepted

Desired output: Status Message stating if the destination location was accepted

Actual Output: No status message found

Result: Test case failed as the app failed to display a popup of the location being validated.

Impact: The app will assume the use of valid end locations as input as the core use of this app is to find the cost of trips not validate locations it is given.

3. preliminary-information-test-3

   Control: Automatic

   Initial State: No input in the start screen

   Input: Car Details

   Desired output: Status Message stating if the Car Information was accepted

   Actual Output: No status message found

   Result: Test case failed as the app failed to display a popup of the status message validating car details.

   Impact: The app with its dropdown menus only allows the user to select valid cars and similarily only asks for mileage as alternative.

4. preliminary-information-test-4

   Control: Automatic

   Initial State: Accepted Car details in the start screen

   Input: Car mileage/fuel economy information

   Desired output: Status Message stating if the Car mileage/fuel economy information was accepted

   Actual Output: No status message found

   Result: Test case failed as the app failed to display a popup of the status message validating mileage information.

Impact: Small popup known as toast will be added to the app to indicate a valid/invalid value has been added to the mileage.

5. preliminary-information-test-5

   Control: Automatic

   Initial State: Accepted Car details in the start screen

   Input: Car information

   Desired output: Status Message stating if the Car information was updated

   Actual Output: No status message found

   Result: Test case failed as the app failed to display a popup of the status message stating if the Car information was updated successfully.

   Impact: The popup does not need to exist as the app should require a full reset as a lot of different information needs to be updated to make this feature viable for the major goal of this app.

3.2 Map Interactions

Map Interaction covers functional requirements 6-8 as these requirements are concerned with functionality related to the map on display.

Map Tests

1. map-test-1

   Control: Manual

   Initial State: Start Screen finished

   Input: None

   Desired output: Map displaying a route from start to end based on start screen input

   Actual Output: Found full route displayed on the map to indicate the route the app considers most ideal

   Result: Test case passed as the desired output was found in the app.

   Impact: None

2. map-test-2

   Control: Manual

   Initial State: Start Screen finished

   Input: None

   Desired output: Map displaying all gas stations that it can possibly encounter along the route from a start to end destination

   Actual Output: Found no gas stations along the route being displayed.

   Result: Test case failed as the desired output was not found in the app.

   Impact: The requirement that was used in the derivation process for this is not important anymore as the app functions on the basis that refueling is done at the start of the trip.

3. map-test-3

   Control: Manual

   Initial State: Start Screen finished

   Input: None

   Desired output: Map displaying all gas station prices as they come up along the displayed route

   Actual Output: Found no gas stations as such along the route being displayed.

   Result: Test case failed as the desired output was not found in the app.

   Impact: Gas prices could not feasibly be found for all the gas stations as such the requirements used to derive this test case are not valid anymore.

3.3 Backend Processing

Backend processing covers functional requirements 9-12 as these requirements are concerned with calculations and, external data collection and processing alike.

Backend Tests

1. backend-test-1

   Control: Automatic

   Initial State: Start Screen finished

   Input: Route Details

   Desired output: Route returned to the user is one that is optimizing the distance and elevation perfectly to reduce fuel costs

   Actual Output: Route returned to the user is optimized to minimize fuel costs

   Result: Test case passed as the main goal of the optimization is achieved as minimal fuel costs are being shown.

   Impact: None.

2. backend-test-2

   Control: Automatic

   Initial State: Start Screen finished

   Input: Route Details

   Desired output: The database call on the backend returns correct elevation data for a route.

   Actual Output: The route details for multiple routes was matched with correct reference data in the framework and was found to be identical.

   Result: Test case passed as the desired output was achieved.

   Impact: None.

3. backend-test-3

   Control: Automatic

   Initial State: Start Screen finished

   Input: Route Details

Desired output: Correct mileage is given by backend for a certain co-ordinate.

Actual Output: Mileage that matched reference value is given by the backend.

Result: Test case passed as the desired output was achieved.

Impact: None.

4. backend-test-4

   Control: Automatic

   Initial State: Start Screen finished

   Input: Route Details

   Desired output: Correct total cost is calculated by the backend for a certain route with a start and end decisions as the route details.

   Actual Output: All data required for correct total cost is given by the backend which is verified with reference data and equated in the front end.

   Result: Test case passed as the desired output was achieved.

   Impact: None.

4 Nonfunctional Requirements Evaluation

4.1 Usability

4.2 Performance

4.3 etc.

5 Comparison to Existing Implementation

This section will not be appropriate for every project.

Appendix — Reflection

The information in this section will be used to evaluate the team members on the graduate attribute of Lifelong Learning. Please answer the following questions:

1.

2.