Functional Test Plan
Version 1.0

1 Update History 3
2 Document Purpose 3
3 Test Cases. 3
3.1 TEST CASE 1. 3
3.2 TEST CASE 2. 4
3.3 TEST CASE 3. 5
3.4 TEST CASE 4. 6
3.5 TEST CASE 5. 6
3.6 TEST CASE 6. 7
3.7 TEST CASE 7. 7
3.8 TEST CASE 8. 8

1 Update History

Update Date	Update Description	Updated By
07/09/2015	Created test plan	Paul Lee
10/09/2015	Added tests for editing and deleting	Paul Lee
15/09/2015	Added tests for user location	Paul Lee

2 Document Purpose

This functional test plan tests the functionality of the database connection, database download and database functions for the GPS Plugin that has been developed.

3 Test Cases.

3.1 TEST CASE 1.

Test Case#	Required Inputs	Expected Results	Actual Results	Pass/Fail
	Verify that the database has made a connection to the server.			
1.	User enters a valid server address (URL) to download the database from. "http://www.nzwheelsonline.com/AHCI/gpsnodes.sqlite"	Successful connection message displayed "Successfully connected to server"	Successful connection message displayed "Successfully connected to server"	**Pass**
2.	User enters an invalid server address to download the database from. "http://www.nzwhelsonline.com/AHCI/gpsnodes.sqlite	Error message displayed "Cannot connect to server"	Error message displayed "Cannot connect to server"	**Pass**

3.2 TEST CASE 2.

Test Case#	Required Inputs	Expected Results	Actual Results	Pass/Fail
	Verify the download of the database from the server, make connection to database and run a select query.			
1.	Enter the valid database name “gpsnodes.sqlite”	Successful connection message displayed “Successfully connected to the database”	Successful connection message displayed “Successfully connected to the database”	**Pass**
2.	Enter the valid table name “nodes”	Successful connection message displayed “Successfully found table nodes”	Successful connection message displayed “Successfully found table nodes”	**Pass**
3.	Enter an invalid table name “nodez”	Error message displayed “Could not find table named ‘nodez’”	Error message displayed “Could not find table named ‘nodez’”	**Pass**
4.	Enter invalid database name “gpsnodez.sqlite”	Error message displayed “Could not find database named ‘gpsnodez.sqlite’”	Error message displayed “Could not find database named ‘gpsnodez.sqlite’”	**Pass**
5.	Run a query to select data from database “Select * from nodes”;	Displays all the nodes that are stored in the database.	Displays all the nodes that are stored in the database.	**Pass**
6.	Run an invalid query “Select countd from nodes”	Error message displayed “Invalid SQL query”	Error message displayed “Invalid SQL query”	**Pass**

3.3 TEST CASE 3.

Test Case#	Required Inputs	Expected Results	Actual Results	Pass/Fail
	Verify that only valid values can be used to create new nodes in the database			
1.	Enter gps_lat -36.175546 Enter gps_long 174.45864 Enter gps_title Testing	Success message displayed "A node with the latitude -36.175546, longitude 174.45864 and title "testing" has been entered in to the database"	Success message displayed "A node with the latitude -36.175546, longitude 174.45864 and title "testing" has been entered in to the database"	**Pass**
2.	Enter gps_lat hello Enter gps_long 174.45864 Enter gps_title Testing	Error message displayed "The gps_lat value is not a valid format (float)"	Error message displayed "The gps_lat value is not a valid format (float)"	**Pass**
3.	Enter gps_lat -36.175546 Enter gps_long hello Enter gps_title Testing	Error message displayed "The gps_long value is not a valid format (float)	Error message displayed "The gps_long value is not a valid format (float)	**Pass**
4.	Enter gps_lat -36.15$^ Enter gps_long 174.45864 Enter gps_title Testing	Error message displayed "The gps_lat value is invalid!"	Error message displayed "The gps_lat value is invalid!"	**Pass**
5.	Enter gps_lat -36.175546 Enter gps_long 17#*6&^* Enter gps_title Testing	Error message displayed "The gps_long value is invalid!"	Error message displayed "The gps_long value is invalid!"	**Pass**

3.4 TEST CASE 4.

Test Case#	Required Inputs	Expected Results	Actual Results	Pass/Fail
	Verify that the radius of shown nodes around the user is a float value			
1.	Enter radius 5000.0	Show nodes that are within a radius of 5000m of the user	Show nodes that are within a radius of 5000m of the user	**Pass**
2.	Enter radius fsdfk	Error message displayed “The radius value is invalid!”	Error message displayed “The radius value is invalid!”	**Pass**
3.	Enter radius #(*$	Error message displayed “The radius value is invalid!”	Error message displayed “The radius value is invalid!”	**Pass**
4.	Enter radius	Error message displayed “There must be a radius value”	Error message displayed “There must be a radius value”	**Pass**

3.5 TEST CASE 5.

Test Case#	Required Inputs	Expected Results	Actual Results	Pass/Fail
	Verify valid inputs for editing of nodes			
1.	Enter gps_id 0 Enter gps_lat -36.15266 Enter gps_long 174.5464 Enter gps_title testing	Success message displayed “Node at id=0 has been updated, new gps_lat is -36.15266 and gps_long is 174.5464 and gps_title is testing”	Success message displayed “Node at id=0 has been updated, new gps_lat is -36.15266 and gps_long is 174.5464 and gps_title is testing”	**Pass**
2.	Enter gps_id 1999	Error message displayed “There is no node with that id”	Error message displayed “There is no node with that id”	**Pass**
3.	Enter gps_id ^&	Error message displayed “The gps_id value is invalid!”	Error message displayed “The gps_id value is invalid!”	**Pass**
4.	Enter gps_id 0 Enter gps_lat -234984^(* Enter gps_long 174.5464 Enter gps_title testing	Error message displayed “The gps_lat value is invalid!”	Error message displayed “The gps_lat value is invalid!”	**Pass**
5.	Enter gps_id 0 Enter gps_lat -36.15266 Enter gps_long &*^#@(3.0 Enter gps_title testing	Error message displayed “The gps_long value is invalid!”	Error message displayed “The gps_long value is invalid!”	**Pass**

3.6 TEST CASE 6.

Test Case#	Required Inputs	Expected Results	Actual Results	Pass/Fail
	Verify deletion of database node			
1.	Enter gps_id 0	Success message displayed “Node at id=0 has been deleted”	Success message displayed “Node at id=0 has been deleted”	**Pass**
2.	Enter gps_id = 3980234	Error message displayed “There is no node at 3980234”	Error message displayed “There is no node at 3980234”	**Pass**
3.	Enter gps_id = &^(	Error message displayed “The gps_id entered is invalid!”	Error message displayed “The gps_id entered is invalid!”	**Pass**
4.	Enter gps_id = A	Error message displayed “The gps_id entered is invalid!”	Error message displayed “The gps_id entered is invalid!”	**Pass**

3.7 TEST CASE 7.

Test Case#	Required Inputs	Expected Results	Actual Results	Pass/Fail
	Verify the user’s location. (This would be grabbed by the location service of the user’s device) -For testing purposes this location will be set.			
1.	Enter user location at -36.8522161, 174.7648433	Display user location coordinates “Latitude -36.8522161 Longitude 174.7648433”	Display user location coordinates “Latitude -36.8522161 Longitude 174.7648433”	**Pass**
2.	Enter user location at -36.456sd$, 154.*6j	Error message displayed “The user location is invalid”	Error message displayed “The user location is invalid”	**Pass**

3.8 TEST CASE 8.

Test Case#	Required Inputs	Expected Results	Actual Results	Pass/Fail
	Verify the nodes that are less than 5000m away from user are displayed. -For testing purposes the user location is set. -Nodes in the database (-36.8522161,174.7648400) (-40.4516,178.45646) (-36.852200,174.764700) -"0" means that the node is further away			
1.	Enter user location at -36.8522161, 174.7648433	Display the coordinates that are within 5000m of the user's location and their distance away, in meters "0.2936, 0, 12.88"	Display the coordinates that are within 5000m of the user's location and their distance away, in meters "0.2936, 0, 12.88"	**Pass**
2.	Enter user location at 50.5646, 230.15647	Display the coordinates that are within 5000m of the user's location and their distance away, in meters "0,0,0,"	Display the coordinates that are within 5000m of the user's location and their distance away, in meters "0,0,0,"	**Pass**
3.	Enter user location at 34$,jhkl	Error message displayed "The user's location is invalid!"	Error message displayed "The user's location is invalid!"	**Pass**