

# Black Box Testing

## 1. Location Search: Equivalence Class Testing (Discrete Values)

### - Use Case Description <ref F1>:

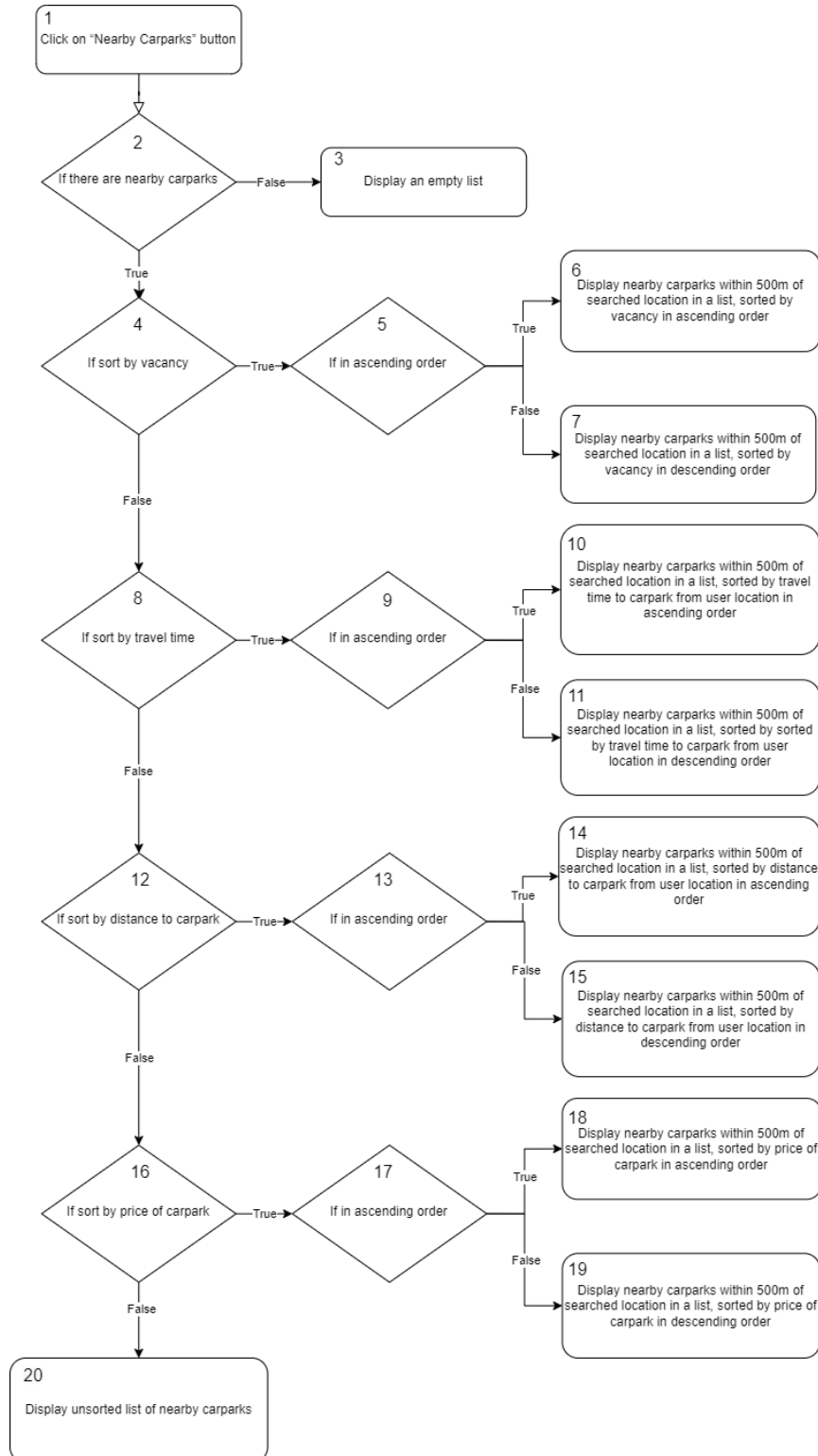
The user must be able to search for car parks near a location.

- The system must support searching **by a valid Singapore postal code.**
- The system must support searching by **building/street name.**
- The system must support searching by **full Singapore mailing address.**
- The system **must reject** any address/location not within mainland Singapore, and allow the user to pick again.

Test Input (Valid Input)		Expected Output	Actual Output
Query	Postal Code		
Jurong Point	(N/A)	1 Jurong West Central 2, Singapore 648886	1 Jurong West Central 2, Singapore 648886
(N/A)	648886	1 Jurong West Central 2, Singapore 648886	1 Jurong West Central 2, Singapore 648886
Jurong Point	648886	1 Jurong West Central 2, Singapore 648886	1 Jurong West Central 2, Singapore 648886
(N/A)	(N/A)	No results.	No results.
Test Input (Invalid Input)		Expected Output	Actual Output
Query	Postal Code		
Eiffel Tower	648886	No results.	No results.
Causeway Point	99950 (US Zip Code)	No results.	No results.

# White Box Testing

## 1. Sort through list of nearby carparks



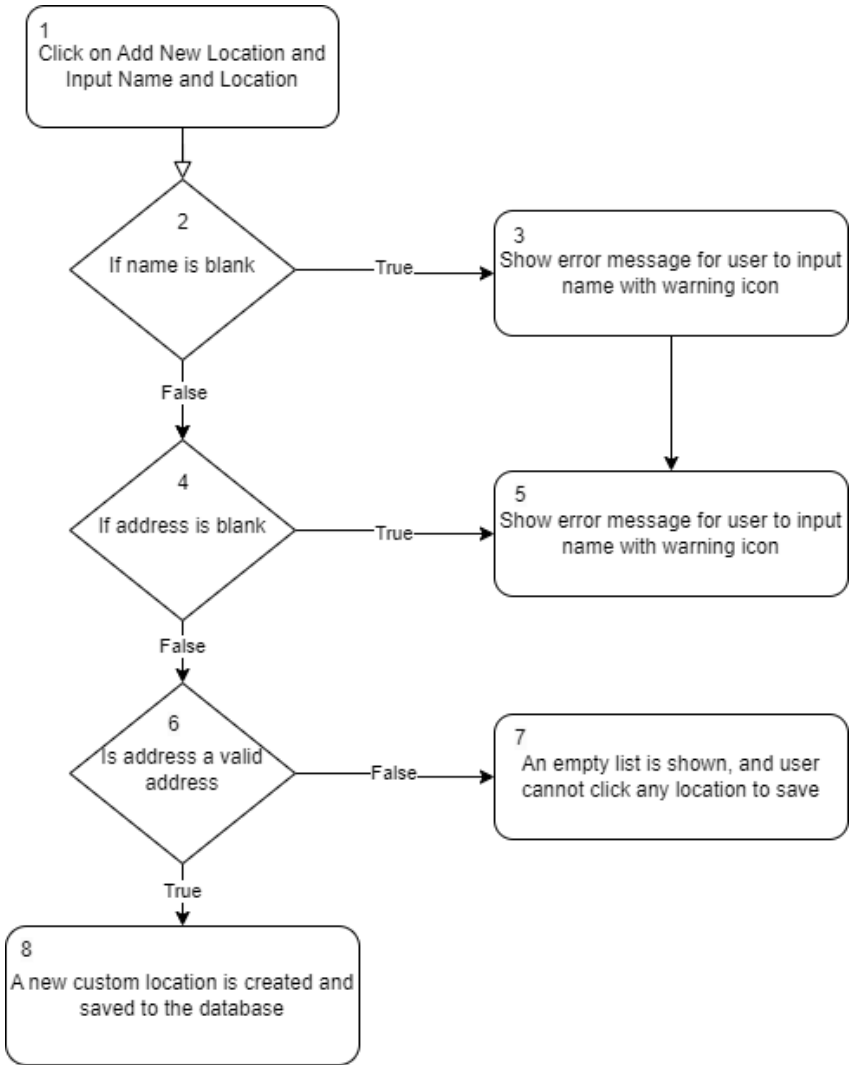
**Cyclomatic Complexity = 9 decision points + 1 = 10 basic paths to test**

Test ID	Basis Path	Input (List of nearby carpark returned from server)						Expected Output	Actual Output
		Is list empty	Ascending order	Sort by vacancy	Sort by travel time	Sort by distance	Sort by price		
1	1,2,3	Yes	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	Displays an empty list	Displays an empty list
2	1,2,4,8,12,16,20	No	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	Displays the unsorted carpark list nearby user searched location	Displays the unsorted carpark list nearby user searched location
3	1,2,4,5,6	No	Yes	Yes	No	No	No	Displays the nearby carpark list nearby user searched location, sorted by vacancy in ascending order.	Displays the nearby carpark list nearby user searched location, sorted by vacancy in ascending order.
4	1,2,4,5,7	No	No	Yes	No	No	No	Displays the nearby carpark list nearby user searched location, sorted by vacancy in descending order.	Displays the nearby carpark list nearby user searched location, sorted by vacancy in descending order.
5	1,2,4,8,9,10	No	Yes	No	Yes	No	No	Displays the nearby carpark list nearby user searched location, sorted by	Displays the nearby carpark list nearby user searched location, sorted by

								travel time in ascending order.	travel time in ascending order.
6	1,2,4,8,9,11	No	No	No	Yes	No	No	Displays the nearby carpark list nearby user searched location, sorted by travel time in descending order.	Displays the nearby carpark list nearby user searched location, sorted by travel time in descending order.
7	1,2,4,8,12,13,14	No	Yes	No	No	Yes	No	Displays the nearby carpark list nearby user searched location, sorted by distance in ascending order.	Displays the nearby carpark list nearby user searched location, sorted by distance in ascending order.
8	1,2,4,8,12,13,15	No	No	No	No	Yes	No	Displays the nearby carpark list nearby user searched location, sorted by distance in descending order.	Displays the nearby carpark list nearby user searched location, sorted by distance in descending order.
9	1,2,4,8,12,16,17,18	No	Yes	No	No	No	Yes	Displays the nearby carpark list nearby user searched location, sorted by price in	Displays the nearby carpark list nearby user searched location, sorted by price in

								ascending order.	ascending order.
10	1,2,4,8,12,16,17,18,19	No	No	No	No	No	Yes	Displays the nearby carpark list nearby user searched location, sorted by price in descending order.	Displays the nearby carpark list nearby user searched location, sorted by diprice stance in descending order.

## 2. Create Custom Locations



**Cyclomatic Complexity = 3 decision points + 1 = 4 basic paths to test**

Test ID	Basis Path	Input (List of nearby carparks returned from server)		Expected Output	Actual Output
		Name	Location		
1	1,2,4,6,8	Home	1 Jurong West Central 2, Singapore 648886	A new custom location is created	A new custom location is created
2	1,2,3	(Blank)	1 Jurong West Central 2, Singapore 648886	Warning icon appears at the name field. Shows error message for users to put a name.	Warning icon appears at the name field. Shows error message for users to put a name.
3	1,2,4,5	Home	(Blank)	Warning icon appears at the location field. Shows error message for users to put a location	Warning icon appears at the location field. Shows error message for users to put a location .
4	1,2,4,6,7	Home	Paris, Rome	An empty list is shown and user cannot click on any result to save	An empty list is shown and user cannot click on any result to save







