

Black Box Testing: Equivalence Class and Boundary Value Testing

Control class tested: Percentage Match Estimator

Gross Floor Area (sqm)

Equivalence class partitioning:

Invalid Partition	Valid Partition	Invalid Partition
<ul style="list-style-type: none">• 0• -1• -2• ...	<ul style="list-style-type: none">• 1• 2• ...• 4999• 5000	<ul style="list-style-type: none">• 5001• 5002• 5003• ...

Boundary value testing:

Invalid Partition - Valid Partition lower boundary		Invalid Partition - Valid Partition Upper boundary	
Boundary Value just below boundary	Boundary Value just above boundary	Boundary Value just below boundary	Boundary Value just above boundary
0	1	5000	5001

Room Count

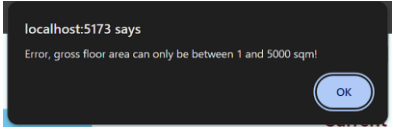


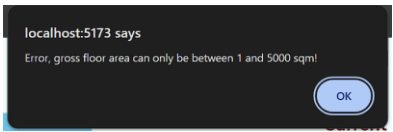


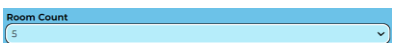

Equivalence class partitioning:

Invalid Partition	Valid Partition	Invalid Partition
<ul style="list-style-type: none">• 0• -1• -2• ...	<ul style="list-style-type: none">• 1• 2• 3• 4• 5	<ul style="list-style-type: none">• 6• 7• ...

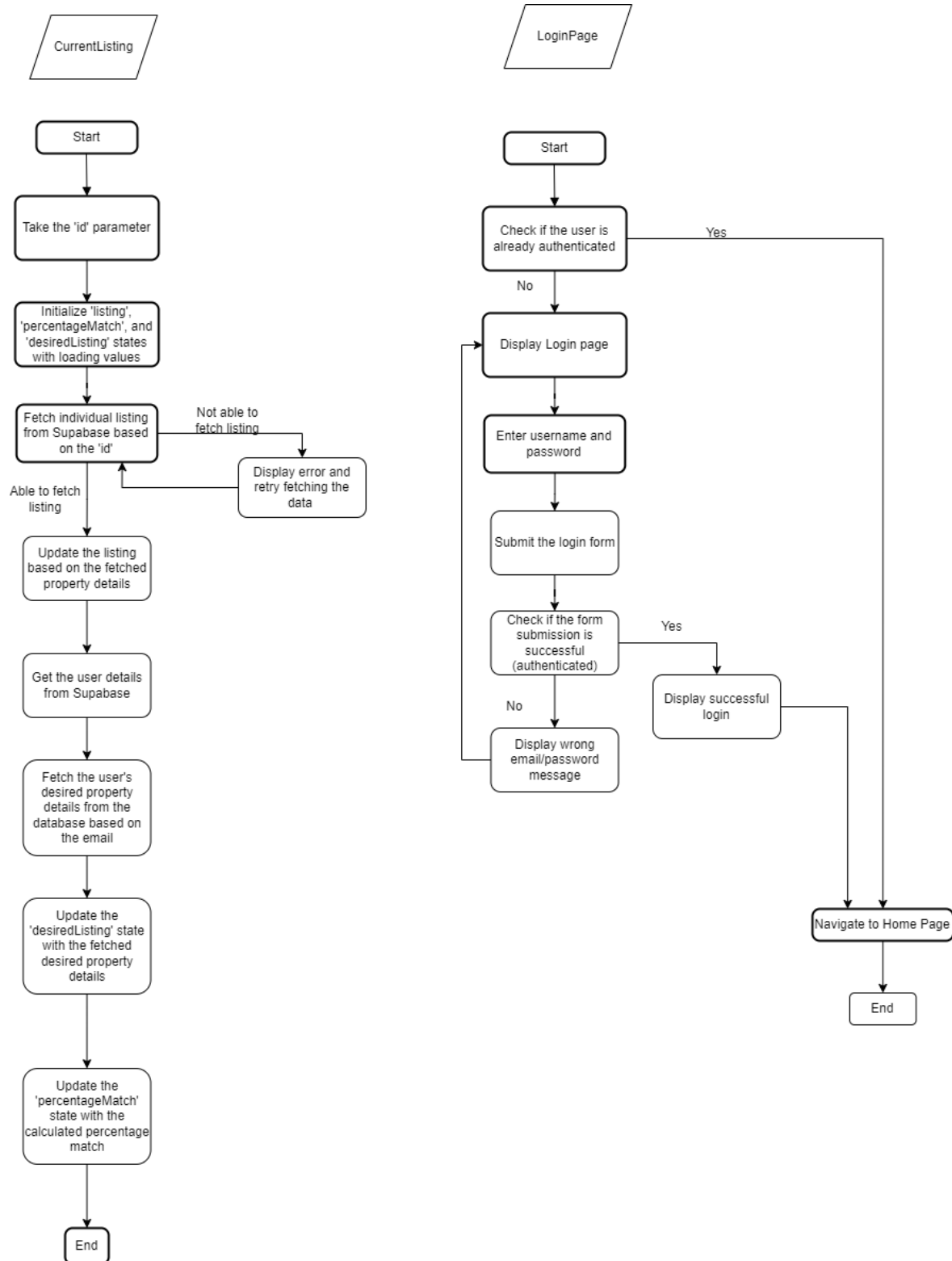
Boundary value testing:

Invalid Partition - Valid Partition lower boundary		Invalid Partition - Valid Partition Upper boundary	
Boundary Value just below boundary	Boundary Value just above boundary	Boundary Value just below boundary	Boundary Value just above boundary
0	1	5	6

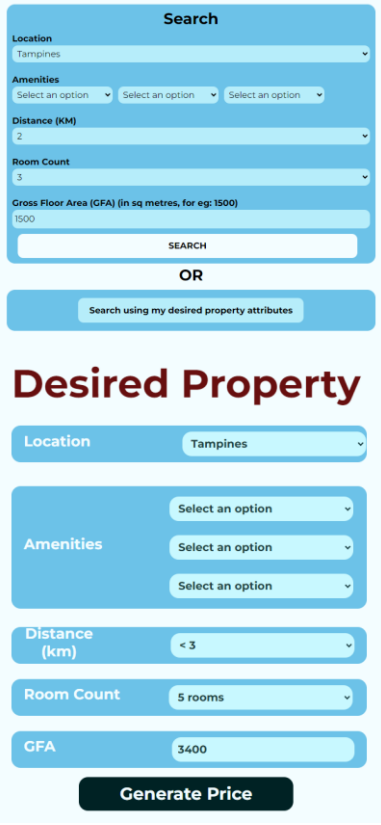
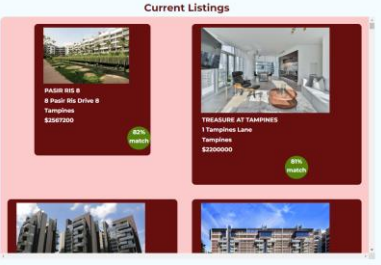
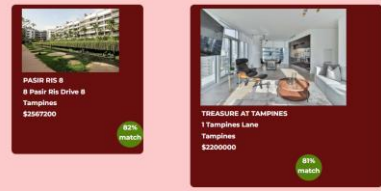

Test Cases

Test Input	Expected Output	Actual Output
Input Gross Floor Area as 0	Alert: Error, gross floor area can only be between 1 and 5000 sqm!	
Input Gross Floor Area as 1	Lists of matching properties are generated successfully	
Input Gross Floor Area as 5000	Lists of matching properties are generated successfully	
Input Gross Floor Area as 5001	Alert: Error, gross floor area can only be between 1 and 5000 sqm!	
Input Room Count as 0	Such an option does not exist in the dropdown menu. Dropdown will thus default to empty state	
Input Room Count as 1	Dropdown option selected successfully	
Input Room Count as 5	Dropdown option selected successfully	
Input Room Count as 6	Such an option does not exist in the dropdown menu. Dropdown will thus default to empty state	

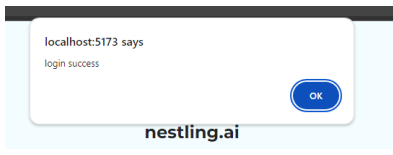
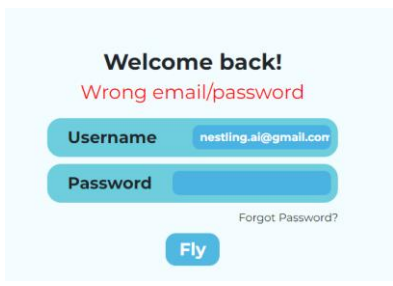
White Box Testing: Flowchart for Components: CurrentListing and LoginPage



Test Cases for CurrentListing function:

Test Input	Expected Output	Actual Output
The user submits the desired property form and searches by clicking 'Search using my desired property attributes'	Able to view the attributes of the user's desired property	 <p>The screenshot shows a 'Search' form with fields for Location (Tampines), Amenities (three dropdowns), Distance (KM) (2), Room Count (3), and Gross Floor Area (GFA) (1500). Below the form is a 'SEARCH' button. Underneath is an 'OR' section with a button labeled 'Search using my desired property attributes'. Below this is a 'Desired Property' section with a summary of the selected attributes: Location (Tampines), Amenities (three dropdowns), Distance (km) (< 3), Room Count (5 rooms), and GFA (3400). A 'Generate Price' button is at the bottom.</p>
The user submits the desired property form and searches by clicking 'Search using my desired property attributes'	Able to view all the current listings	 <p>The screenshot shows a 'Current Listings' section with four property cards. Each card displays a property image, name, address, and price. The first card is 'PACIFIC 8' at '8 Pacific 8 Drive 8, Tampines' for \$2267200. The second card is 'TREASURE AT TAMPINES' at '1 Tampines Lane, Tampines' for \$2200000. The third and fourth cards are partially visible.</p>
The user submits the desired property form and searches by clicking 'Search using my desired property attributes'	Able to view the current listings with a percentage	 <p>The screenshot shows a 'Current Listings' section with four property cards. Each card displays a property image, name, address, and price. The first card is 'PACIFIC 8' at '8 Pacific 8 Drive 8, Tampines' for \$2267200 with a 12% match. The second card is 'TREASURE AT TAMPINES' at '1 Tampines Lane, Tampines' for \$2200000 with a 10% match. The third and fourth cards are partially visible.</p>
The user searches using the 'Search' button	Should display all the current listings with the attributes matched	 <p>The screenshot shows the 'Search' form and a 'Current Listings' section. The 'Search' form has fields for Location, Amenities, Distance, Room Count, and GFA, with a 'SEARCH' button. Below the form is an 'OR' section with a button labeled 'Search using my desired property attributes'. Below this is a 'Current Listings' section with four property cards, each displaying a property image, name, address, and price.</p>

Test Cases for LoginPage function:

Test Input	Expected Output	Actual Output
The user is authenticated (Successful)	Directed to the Homepage	Directed to the Homepage
The user is not authenticated (Unsuccessful)	Directed to Login Page	Directed to Login Page
Input Validation Valid Input and Password	Directed to the Homepage	
Input Validation Invalid Input and/or Password	Directed to Login Page	
Clicked 'Forget Password' to reset password	Directed to forget password page to enter new password after clicking the verification email sent to the user's email	