

*Florida International University*  
*School of Computing and Information Sciences*

Software Engineering Focus

# Feature Document

#2531

Develop improved dropdown filters user interface

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**Project:** BreazeHome 4.0

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**Instructor:** Masoud Sadjadi

## USER STORY NAME:

### Develop improved dropdown filters user interface

- Description: As a user, I would like to see an advanced filters user interface that includes helpful information and data such as density/frequency charts as well as other simple filter options.

#### Acceptance Criteria

- Model filters UI based on provided design.
- Applying filters displays correct filtered properties list and map.
- Applying filters displays correct density charts information and counts as described in provided design.
- User can see selected filters for price, bedrooms and bathrooms.
- User can reset all filters.

## Use Case

- Name: Filter Results Properties
- Actor: User (Home Buyer, Home Renter, Agent)
- Preconditions:
  - User is on a desktop computer with a web browser
  - User has a stable internet connection.
  - User has navigated to the BreazeHome website: [www.breazehome.com](http://www.breazehome.com)
  - User has navigated to the 'Results' page.
- Description <Flow of events>:  
**Trigger:** The user opens the filters dropdown by clicking on the filters dropdown button, modifies any combination of filters, and then applies the modified filters by clicking on the "Apply Filters" button.

The system responds by:

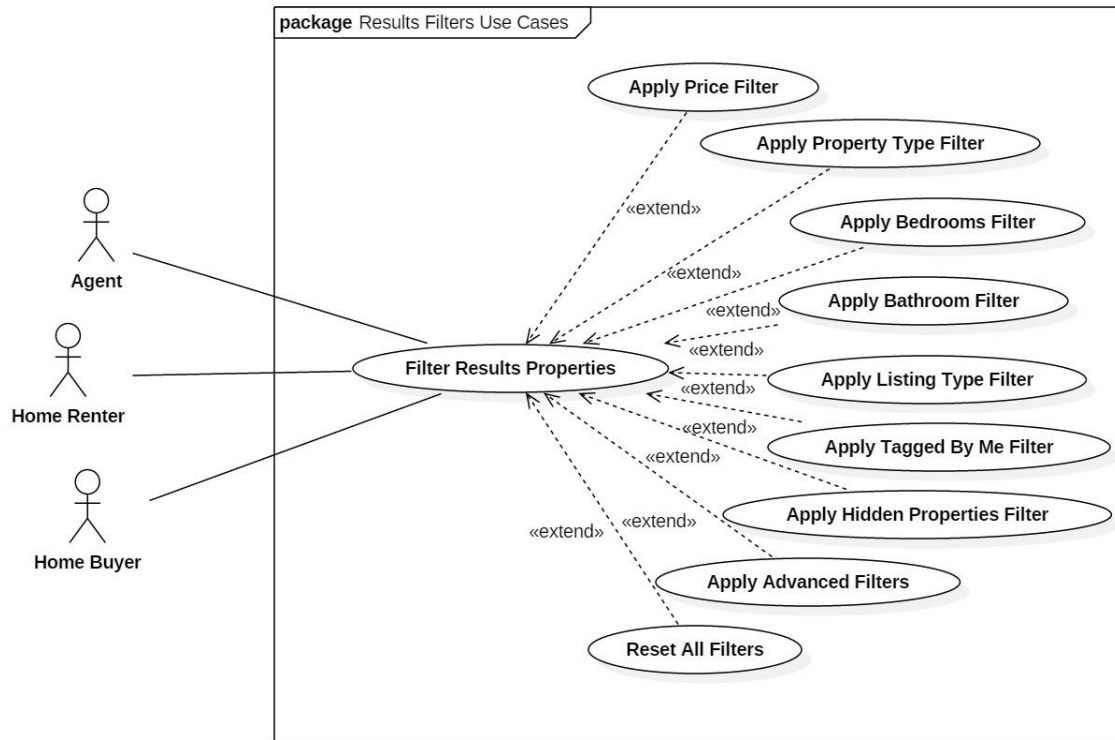
1. Updating the displayed list of properties cards to reflect selected filter values.
2. Updating the displayed properties on the map to reflect selected filter values.
3. Updating the filters values displayed as applied on the filters dropdown button.
4. Updating the total count of properties, as well as the count of properties encompassed by each filter selection where applicable.
5. Updating and populating the density charts for each applicable filter with correct information.

- Name: Reset Filter (Special case of Filter Results Properties)
- Actor: User (Home Buyer, Home Renter, Agent)
- Preconditions:
  - User is on a desktop computer with a web browser
  - User has a stable internet connection.
  - User has navigated to the BreazeHome website: [www.breazehome.com](http://www.breazehome.com)
  - User has navigated to the 'Results' page.
  - User has successfully applied some filters.
- Description <Flow of events>:  
**Trigger:** The user opens the filters dropdown by clicking on the filters button, some filters have already been modified and applied. The user clicks on the filters "Reset" button.

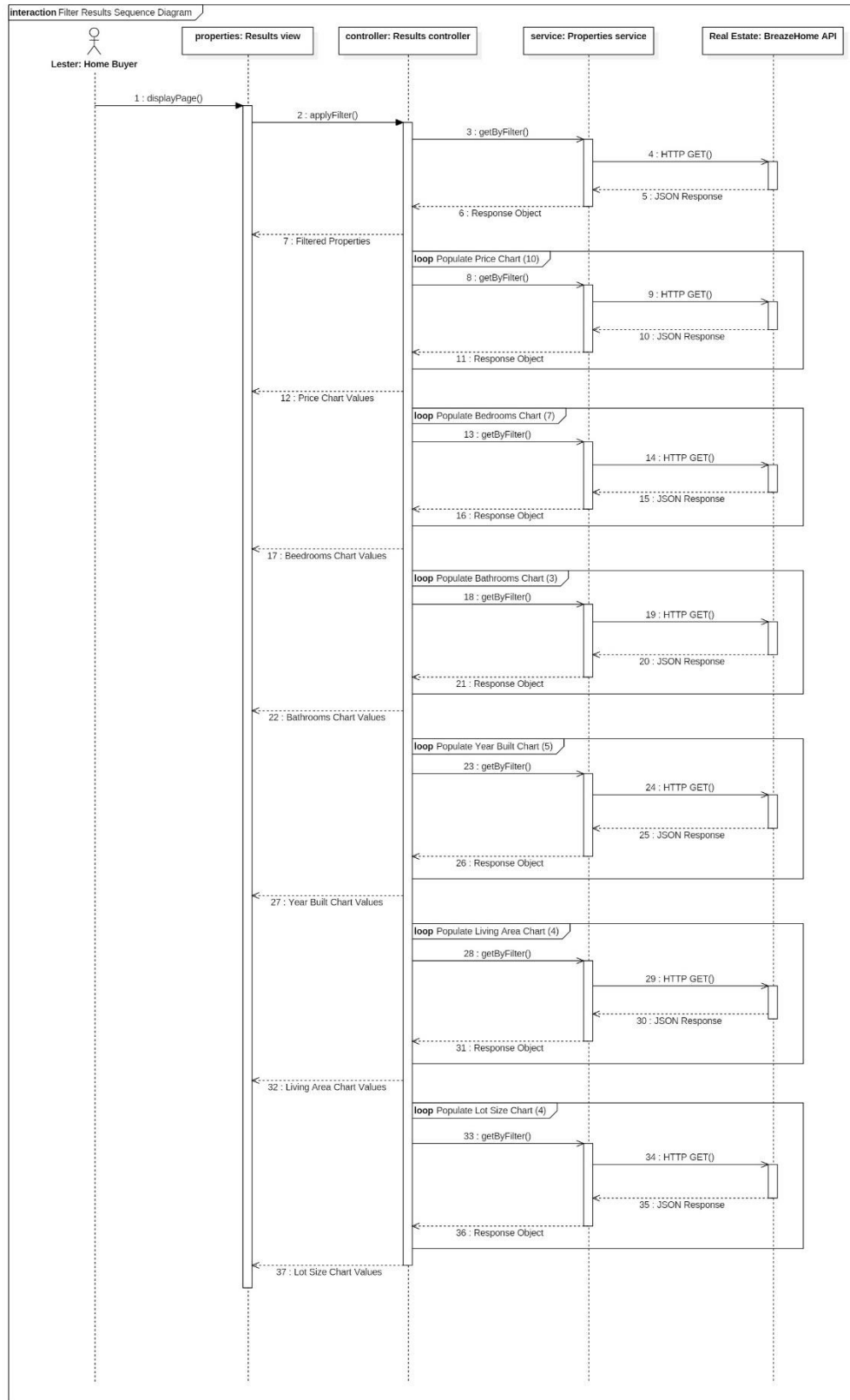
The system responds by:

1. Resetting all visual filter options to their default values.
2. Resetting the displayed list of properties cards to reflect the default filter values.
3. Resetting the displayed properties on the map to reflect the default filter values.
4. Resetting the filters values displayed as applied on the filters dropdown button to default.
5. Resetting the total count of properties, as well as the count of properties encompassed by default filter values where applicable.
6. Resetting and re-populating the density charts for each applicable filter with default information.

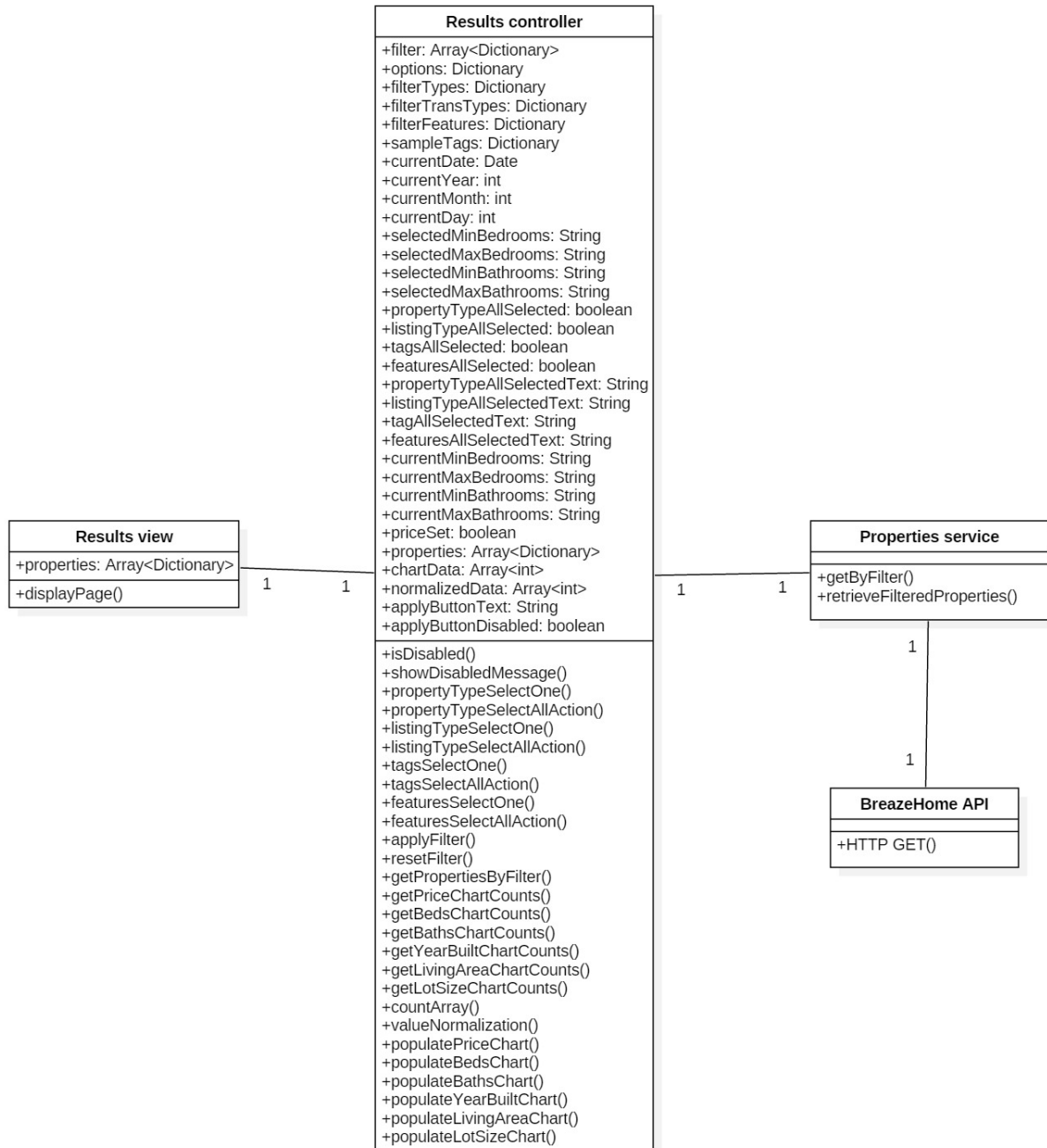
## Use Case Diagram



# Sequence Diagram



## Class Diagram



## Unit Test

- **Test case ID: test\_apply\_price**
  - Description/Summary of Test:  
Test price filter functionality by selecting range '400-600k' and applying filters.
  - Pre-condition:
    - All other filter values are default.
    - Map in default initial position.
    - No search address specified.
    - Total property count: 2116
    - Price filter property count: 2036
  - Expected Results:
    - Properties in list and map update.
    - All properties shown are within price range selected.
    - All filter density charts update, except for that of price.
    - Total property count is reduced.
    - Price filter property count stays the same.
    - All property counts, but that of price filter are largely reduced.
  - Actual Result:
    - Properties in list and map updated successfully.
    - All properties shown were within price range selected.
    - All filter density charts updated successfully.
    - Total property count: 224
    - Price filter property count: 2036
    - All other property counts were reduced.
  - Status (Fail/Pass): Pass
- 
- **Test case ID: test\_apply\_property\_type**
  - Description/Summary of Test:  
Test property type filter functionality by selecting only 'Condo' from property types options and applying filters.
  - Pre-condition:
    - All other filter values are default.
    - Map in default initial position.
    - No search address specified.
  - Expected Results:
    - Properties in list and map update.
    - All filter density charts update.
  - Actual Result:
    - Properties in list and map updated successfully.

- All filter density charts updated successfully.
- Status (Fail/Pass): Pass
  
- **Test case ID: test\_apply\_bedrooms**
- Description/Summary of Test:  
Test bedrooms filter functionality by selecting range '2-3' and applying filters.
- Pre-condition:
  - All other filter values are default.
  - Map in default initial position.
  - No search address specified.
  - Total property count: 2116
  - Bedrooms filter property count: 4218
- Expected Results:
  - Properties in list and map update.
  - All properties shown are within bedrooms range selected.
  - All filter density charts update, except for that of bedrooms.
  - Total property count is reduced.
  - Bedrooms filter property count stays the same.
  - All property counts, but that of bedrooms filter are largely reduced.
- Actual Result:
  - Properties in list and map updated successfully.
  - All properties shown were within bedrooms range selected.
  - All filter density charts updated successfully.
  - Total property count: 1177
  - Bedrooms filter property count: 4218
  - All other property counts were reduced.
- Status (Fail/Pass): Pass

- **Test case ID: test\_apply\_bathrooms**
- Description/Summary of Test:  
Test bathrooms filter functionality by selecting range '2-3.5' and applying filters.
- Pre-condition:
  - All other filter values are default.
  - Map in default initial position.
  - No search address specified.



- Total property count: 2116
- Bathrooms filter property count: 3576
- Expected Results:
  - Properties in list and map update.
  - All properties shown are within bathrooms range selected.
  - All filter density charts update, except for that of bathrooms.
  - Total property count is reduced.
  - Bathrooms filter property count stays the same.
  - All property counts, but that of bathrooms filter are largely reduced.
- Actual Result:
  - Properties in list and map updated successfully.
  - All properties shown were within bathrooms range selected.
  - All filter density charts updated successfully.
  - Total property count: 1540
  - Bathrooms filter property count: 3576
  - All other property counts were reduced.
- Status (Fail/Pass): Pass

- **Test case ID: test\_apply\_year\_built**
- Description/Summary of Test:
 

Test year-built filter functionality by selecting range '20-30' and applying filters.
- Pre-condition:
  - All other filter values are default.
  - Map in default initial position.
  - No search address specified.
  - Total property count: 2116
  - Year built filter property count: 1138
- Expected Results:
  - Properties in list and map update.
  - All properties shown are within year-built range selected.
  - All filter density charts update, except for that of year built.
  - Total property count is reduced.
  - Year built filter property count stays the same.
  - All property counts, but that of year-built filter are largely reduced.
- Actual Result:
  - Properties in list and map updated successfully.
  - All properties shown were within year-built range selected.
  - All filter density charts updated successfully.
  - Total property count: 296
  - Year built filter property count: 1138

- All other property counts were reduced.
- Status (Fail/Pass): Pass

- **Test case ID: test\_apply\_living\_area**

- Description/Summary of Test:

Test living area filter functionality by selecting range '5000-10000' and applying filters.

- Pre-condition:

- All other filter values are default.
- Map in default initial position.
- No search address specified.
- Total property count: 2116
- Living area filter property count: 2116

- Expected Results:

- Properties in list and map update.
- All properties shown are within living area range selected.
- All filter density charts update, except for that of living area.
- Total property count is reduced.
- Living area filter property count stays the same.
- All property counts, but that of living area filter are largely reduced.

- Actual Result:

- Properties in list and map updated successfully.
- All properties shown were within living area range selected.
- All filter density charts updated successfully.
- Total property count: 76
- Living area filter property count: 2116
- All other property counts were reduced.

Status (Fail/Pass): Pass

- **Test case ID: test\_apply\_lot\_size**

- Description/Summary of Test:

Test lot size filter functionality by selecting range '10000-20000' and applying filters.

- Pre-condition:

- All other filter values are default.
- Map in default initial position.
- No search address specified.
- Total property count: 2116
- Lot size filter property count: 4682

- Expected Results:
  - Properties in list and map update.
  - All properties shown are within lot size range selected.
  - All filter density charts update, except for that of lot size.
  - Total property count is reduced.
  - Lot size filter property count stays the same.
  - All property counts, but that of lot size filter are largely reduced.
- Actual Result:
  - Properties in list and map updated successfully.
  - All properties shown were within lot size range selected.
  - All filter density charts updated successfully.
  - Total property count: 516
  - Lot size filter property count: 4682
  - All other property counts were reduced.
- Status (Fail/Pass): Pass

- **Test case ID: test\_apply\_features\_amenities**

- Description/Summary of Test:

Test features and amenities filter functionality by selecting only 'Pool' from features and amenities options and applying filters.

- Pre-condition:
  - All other filter values are default.
  - Map in default initial position.
  - No search address specified.
  - Total property count: 2116
- Expected Results:
  - Properties in list and map update.
  - All filter density charts update.
  - Total property count is reduced.
  - All property counts for all filter options are reduced.
- Actual Result:
  - Properties in list and map updated successfully.
  - All filter density charts updated successfully.
  - Total property count: 548
  - All other filters property counts were reduced.
- Status (Fail/Pass): Pass

- **Test case ID: test\_all\_filters**

- Description/Summary of Test:

Test all filters functionality by selecting at least one value on each filter category and then applying filters.

- Pre-condition:

- Map in default initial position.
- No search address specified.
- Total property count: 2116
- Price filter = 200-700k
- Property type filter = 'House'
- Bedrooms filter = 2-4
- Bathrooms filter = 1-2.5
- Year built filter = 20-40
- Living area filter = 0-10000
- Lot size filter = 5000-15000
- Features and amenities filter = 'Pool'
- "Apply Filters" button is then clicked.

- Expected Results:

- Properties in list and map update.
- All properties shown are within all filter ranges selected.
- All filter density charts update.
- Total property count is reduced.
- All property counts are largely reduced.

- Actual Result:

- Properties in list and map updated successfully.
- All properties shown were within filter ranges selected.
- All filter density charts updated successfully.
- Total property count: 41
- All property counts were reduced.

Status (Fail/Pass): Pass

- **Test case ID: reset\_filters**

- Description/Summary of Test:

Test reset filters functionality by resetting all values on each filter category, properties on map, and properties cards to their default values.

- Pre-condition:

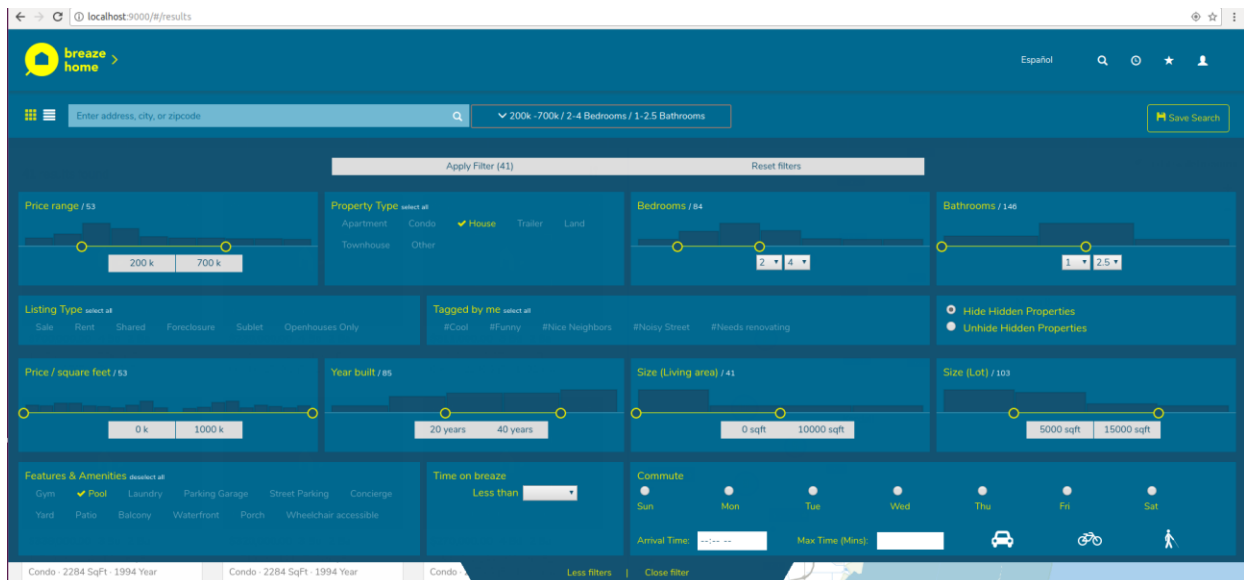
- Map in default initial position.
- No search address specified.
- The following filters have been applied:
  1. Price filter = 200-700k
  2. Property type filter = 'House'
  3. Bedrooms filter = 2-4

4. Bathrooms filter = 1-2.5
  5. Year built filter = 20-40
  6. Living area filter = 0-10000
  7. Lot size filter = 5000-15000
  8. Features and amenities filter = 'Pool'
- Total property count: 41
  - "Reset" button is then clicked.
- Expected Results:
    - Properties in list and map reset to default.
    - All filters visual values reset to default values.
    - All filter density charts update and reset to default values.
    - Total property count is increased and resets to 2116.
    - All property counts are largely increased.
  - Actual Result:
    - Properties in list and map reset successfully.
    - All filters visual values reset successfully.
    - All filter density charts updated and reset successfully.
    - Total property count: 2116
    - All property counts were reset and largely increased.

Status (Fail/Pass): Pass

## Integration Test

## Visual User Guide



← → localhost:9000/#/results

breaze

home

Español

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Enter address, city, or zipcode

Q

▼ Any Price / Any Bedrooms / Any Bathrooms

Save Search

Apply Filter (2116)

Reset filters

Price range / 2036

0 k.

1000 k.

Property Type select all

Apartment

Condo

House

Trailer

Land

Townhouse

Other

Bedrooms / 4218

1

4+

Bathrooms / 3576

1

4+

Listing Type select all

Save

Rent

Shared

Foreclosure

Sublet

Openhouses Only

Tagged by me select all

#Cool

#Funny

#Nice Neighbors

#Noisy Street

#Needs renovating

Hide Hidden Properties

Unhide Hidden Properties

30700 BIMINI BAY OCEAN ST Miami, ...  
Condo - 2800 SqFt - 2005 Year

19 PINKA RD Miami, FL  
Condo - 2904 SqFt - 1954 Year

240 CR ...  
Condo - 13 ...

More filters

Close filter

☆ #

#luxury #beautiful #modern

\$5,850,000.00 5 Bd 4 Ba

640 Sunset Cir, KEYBISCY, FL, 33149 ...  
Condo - 4234 SqFt - 1965 Year

☆ #

#luxury #beautiful #modern

\$3,910,000.00 4 Bd 3 Ba

530 Harbor Dr, KEYBISCY, FL, 33149 ...  
Condo - 2594 SqFt - 1957 Year

☆ #

#luxury #beautiful #modern

\$2,750,000.00 6 Bd 6 Ba

251 Harbor Dr, KEYBISCY, FL, 33149 ...  
Condo - 3850 SqFt - 2001 Year

Map

Kendall