Membership properties requirements

Context

Agents or even the general population can become members of our website and associate themselves with properties to co-broke around the world. Choosing and managing these properties as part of that membership program is the scope of this requirement document. Users desiring to participate in this program are named co-broker agents.

Co-broking on listings

Co-broker agents represent the clients, while listing agents represent the properties. Upon a sale, they typically share the commissions 50%-50% but they also may come to an agreement that shares under a different distribution.

Listings that are not part of any listing-agent's active membership are subject to co-brokerage opportunities. These listings can show up to 4 (four) agents, one of them being the original listing-agent, but other ones can be co-broker users. Note that a property may be associated with more than one listing agent, in which case it would use more than one of the 4 associated agent slots for the property. Listing-agents association mechanisms are already in place, but co-broking properties selections are not.

The purpose of this document is to spell-out the co-broking property selection features to implement.

A co-broker user is a user that has the user-role "co-broker". Anyone can become a co-broker agent, even listing agents or the general population.

Co-broking membership states

- Properties selection period: on each billing cycle (monthly), the user has up to 10 days to specify its properties selection. He can opt to close the properties selection period before the end of these 10 days. On the other hand, if he does not close the properties selection period manually, it automatically closes after 10 days. If the co-broker user has had an active membership during the previous payment cycle, the properties selection from the previous payment cycle applies until the co-broker agent enters in the locked period phase. At the beginning of the properties selection period, the monthly membership payment is taken from the payment method. That monthly membership fee includes 10 properties to co-broke.
- Locked period: outside the properties selection period is the locked period for the month.
 During the locked period, the user can change its properties selection, but these changes will only apply for the next billing period.

A co-broking user has 3 means of selecting properties. He may choose more than one mechanism concurrently.

On the properties match page, there is a global feature described as such:

0	Limit the amount of properties matched to	
0	No limit on properties match	

This is applicable to the entire page. The user could limit its properties to 100 for example. Then, if through the user-experience, if there are 500 properties that are matched through the different selection mechanisms, a random process picks 100 out of the 500 when the co-broker user enters into the locked-period.

Otherwise, in the property selection page, there are 3 tabs: Criteria, Manual and Agents.

Properties selection by search-criteria

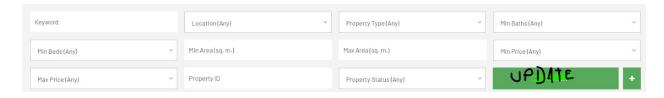
A search-criteria properties selection mechanism stays immutable throughout the monthly membership, yet the properties matching the search-criteria may vary within the month.

For example, if a user states he wants to co-broke on all properties of a type house in the country Dominican-Republic, that has a pool, and of value greater than \$400,000 USD. At the time of search, 200 properties may match that search-criteria. At the time of research, that 200 properties match is used to calculate the amount to apply to the monthly bill. Each listing association cost is \$2, hence there would be a \$400 charge. Since there are 10 properties included from the base membership, the remaining amount to be charged is \$380.

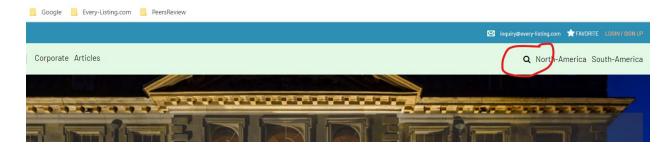
Next month, there may be 250 properties matching the search criteria, in which case the associated monthly charge would be \$500, minus the \$20 for the 10 base properties, then \$480..

Another criteria for that property selection mechanism is a proportion slide-bar. The slide-bar varies from 0.05 to 1, meaning to associate between 5% of the matching properties and 100%.

As part of the requirements, the user-interface and user-experience needs to be implemented as described.



There is already a search interface accessible throughout the web-site from this magnifier icon:



Leverage that functionality already in place so that the search page components would show on the top of the search-criteria page, and rename the button "Update" instead of "Search" when a list was already shown.

Some slight changes are needed in the search criteria and corresponding functionality:

- 1. The location should be divided in Country, Province, City.
- 2. The Country should be an editable, drop-down menu populated by the jurisdiction type COUNTRY.
- 3. The Province should be an editable drop-down menu populated by the jurisdiction type PROVINCE.
- 4. If the country or the country and province are populated, the city becomes an editable-drop-down menu with the corresponding city names (not the sector names).
 - a. If the user types a sector in the city, the sector will match (even though it is not a city and it is not in the menu).
- 5. If the country and province menus are not populated, the city fields stays an editable-drop-down menu as it is implemented today, showing all locations worldwide.
- 6. The City truly searches cities and sectors (since people often mix them up for one another).

These changes to the search feature need to propagate back to the search already in place in the system. These include:

- 1. The magnifier icon in the top toolbar of the website.
- 2. The 'Advanced-search' button from the homepage of the website.
- 3. The search page is accessible after a search was made.

Note that each of these 3 pages share the same code and there is no duplication of code that shall be needed to modify behavior based on the present requirement.

Below the search criteria components there will be a search result comment. Below that search result comment, the list of corresponding properties follow. That functionality is already in place, yet hooking to the corresponding code will require some slight adaptation. Refer to the php function new property list insert to find dozens of examples of that use.

```
263
264 }
                     <?php
  265 endif: // new property list insert
  267 if (!function exists('new property list insert')) :
            function new_property_list_insert($id, $addclassthumbnail = '', $addclassdescription = '') {
                      $home_property = new Inspiry_Property($id);
                      snome_property = new Inspiry_Property_sady,
$custom = get_post_custom($id)$
$address = $home_property->get_address();
$country = $home_property->get_property_meta('IDXGenerator_Country');
$first_type_term = $home_property->get_taxonomy_first_term('property-type', 'all');
                      $first_status_term = $home_property->get_taxonomy_first_term('property-status', 'all');
                                if ((isset($custom['IDXGenerator_directions'])) && (strlen($custom['IDXGenerator_directions'][0]) > 0)) {
                                                                echo esc_html($custom['IDXGenerator_directions'][0]);
echo ' - ';
                                                     } else if (strlen($address) > 0) {
                                                               echo $address;
echo '-';
                                                    if ((isset($custom['IDXGenerator_PropertyTypeDescriptor'])) && (strlen($custom['IDXGenerator_PropertyTypeDescriptor'][0]) > 0)) {
                                                                 echo $custom['IDXGenerator_PropertyTypeDescriptor'][0];
                                                                $\text{status_term} = \text{shome_property->get_taxonomy_first_term( 'property-type', 'all' );
$\text{first_status_term} = \text{shome_property->get_taxonomy_first_term( 'property-status', 'all' );
$\text{first_status_term} = \text{shome_property->get_taxonomy_first_term( 'property-city', 'all' );
}\text{first_status_term} = \text{shome_property->get_taxonomy_first_term( 'property-city', 'all' );}
}\end{align*}
$\text{first_status_term} = \text{shome_property->get_taxonomy_first_term( 'property-city', 'all' );}
$\text{first_status_term} = \text{shome_property-city', 'all' );}
$\text{first_status_term} = \text{first_status_term} = \text{first_status_term} = \text{fi
                                                                $first_city_term = $home_property->get_taxonomy_first_term( 'property-city',
echo esc_html($first_type_term->name);
                                                                echo esc_html($first_status_term->name);
                                                   }
                                           </div>
                                           <div class="new-price-and-status">
                                                     if (isset($custom['IDXGenerator_nlp_price'])) {
                                                                 echo esc_html($custom['IDXGenerator_nlp_price'][0]);
                                                                 echo esc_html( price_format($home_property->get_price_without_postfix()) );
```

In particular, the addclassthumbnail and addclassdescription parameters will later be critical to adding a selection check-box for each displayed property.

At the top of the list of properties corresponding to the search results, there should be a message such as:

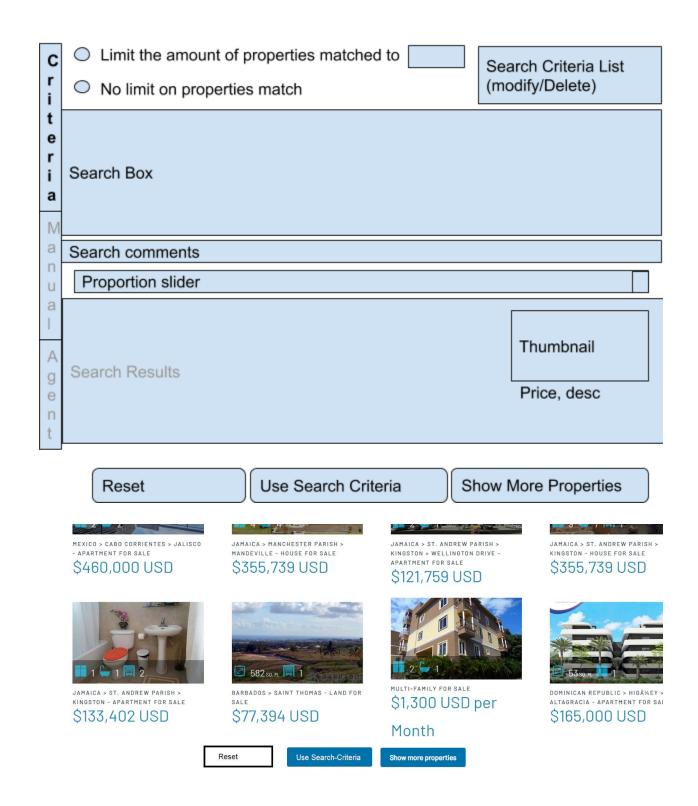
"2,412 properties match detected with a 100% associationship filter. Move the filter slider left if less properties are desired." Or,

"2,412 properties matched with a 50% associationship filter and 1,206 properties are associated. Move the filter slider left or right according to your desires."

Apply a proportion filter:

This slider ranges from 0.05 and 1. The default value is 1.

The overall look and feel would result as is (at a high-level):



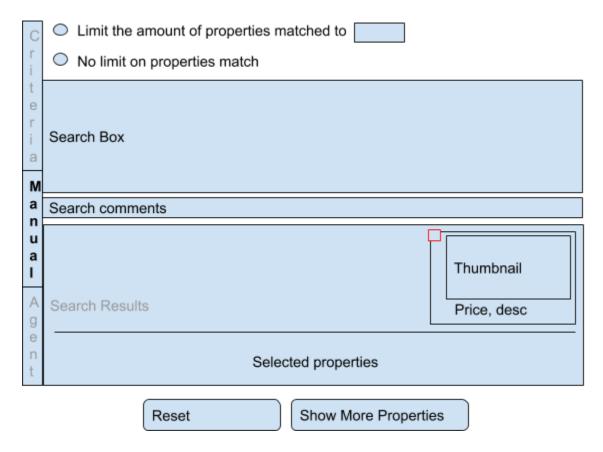
Adding a button "Use Search Criteria" at the bottom of the list is needed. The "Reset" button clears the list and the fields from the search criteria and moves the page back at the search criteria fields entry (that are cleared of values).

In that page, it is important to be able to change/edit any previously search criteria that were entered. A list of search criteria is needed with the corresponding "Edit" and "Delete" buttons associated with each entry.

As operations are done on this page, the Property Selection Widget gets updated accordingly. More on that later in the widget section.

Properties selection by manual selection

The manual selection tab reuses most of the search criteria tab, but with slight modifications.



The user-interface reuses the integration of the search criteria. It also makes use of the flexibility of the addclassthumbnail and addclassdescription parameters from the new_property_list_insert function by adding a functional check-box on each property. Create a css class that you can then pass to the function so the check-box is added without the need to re-create a listing functionality. Below the list of search criteria properties that are selectable through the check-box, are the list of selected properties so far with a button "Remove" for each. It is important to keep the context persisted as the user may have worked hard on creating a selection and the user should access the selection he picked without randomness. If there is a random sub-selection needed to be identified as a result of the use of a proportion slide-bar that is not at 100%, it will be done at a later time (at time of locking).

Throughout the normal interface, there are dozens of ways to refer to properties, in lists as well as in details. Already, there is a favorite user-interface and user-experience. Selecting properties from the favorite list is a handy way to bridge to normal usage for almost no programming cost. As such, this requirement calls for offering the favorites into the manual property matching. Simply display the favorite properties and make them selectable through the check-box as it was already possible from the criteria search interface.

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Properties selection by listing-agent association

This feature is the same as the search criteria feature with the exception there is the added search criteria of the agent. The agent is mandatory. It should be presented as an editable-drop-down menu where the name, phone numbers and e-mail addresses can be used to match an agent.

0 -	 Limit the amount of properties matched to No limit on properties match Search Criteria (modify/Delete)			
t e r i a	Search Box			
M	Search comments			
n u	Proportion slider			
A g e n t	Search Results Price, des			
	Reset Use Search Criteria Show More Prope	erties		

Property selection widget

This is the UI widget to produce and display throughout the entire website for co-broker users.

Properties Selection

<u>Refresh</u>

Selection by search-criteria:	200	\$400
Selection by manual-selection:	10	\$20
Selection by agent assoc.:	23	\$46
	202	\$404

31 properties were detected as duplicate in your selection.

Finalize Selection*

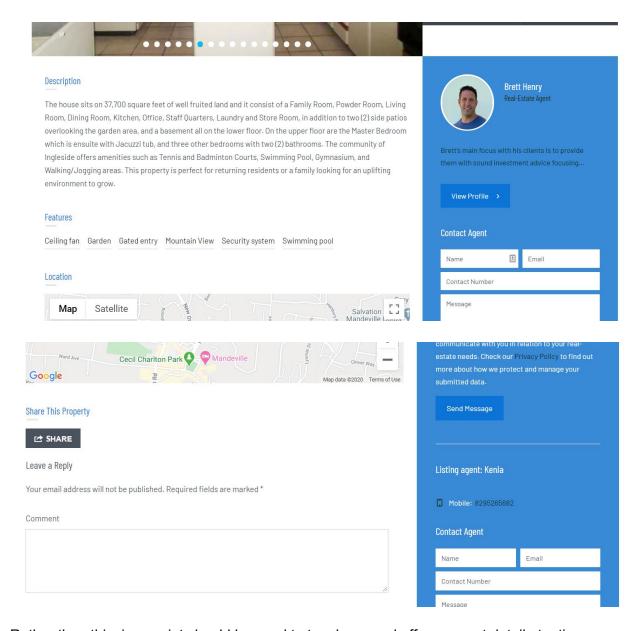
(*)Only visible if in selection phase

If the co-broker user is within the properties selection period, a note is added such as: "You have another 2 days to finalize your properties selection." A button named "Finalize Selection" also becomes visible. If the user presses the "Finalize Selection" button, a confirmation message stating "You have selected 202 properties. By finalizing your selection, these properties will be permanently associated with you for the month and you will be charged immediately \$404." <Cancel> <Continue>.

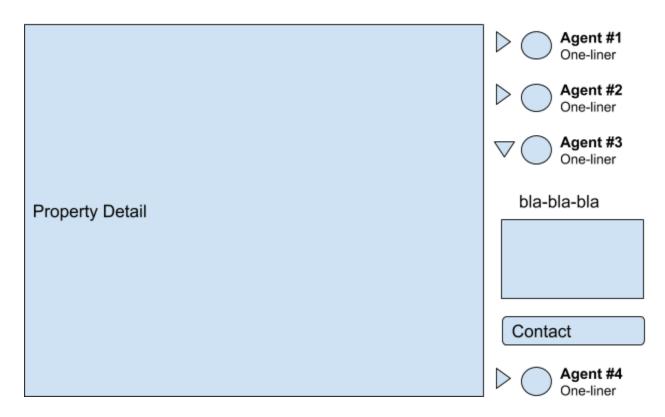
If the co-broker user is within its locked period, a note is added such as: "Your properties were associated for this month, any change will apply from next month on."

Changes to Detail Property Page

The display of multiple agents in a listing needs to improve. It is now displaying the complete information of each one, one after the other.



Rather than this, javascript should be used to toggle-on and off one agent detail at a time.



Here are the rules:

- 1. If only one agent is associated with the listing, the agent is displayed toggle-on (showing the information without clicking).
- 2. Only one agent is toggled-on at any time. That means that if the user presses a toggle-off agent, it toggles it on and toggles off all other agents.

Processes

onEnteringLockedPeriodPhase

This function (to create entirely) locates all co-broker agent user roles and performs the right assignments into each Property to store the associationship of the user's properties that were selected. The co-broker users to process are the users that have user-role co-broker and have the custom-field Pay_period_day corresponding to the current day of the month. It invokes the corresponding payment to perform (payment system already in place and functional, yet interfacing with it is needed), and upon successfully having processed the payment it performs the associationship within the properties custom-fields.

Two days before the end of the "selection" period, an email needs to be sent to the corresponding user reminding him to finish the selection of properties. The email should contain the properties selected so far and the text will be provided to include.

This function loops through all the co-broker users and calls the function on Entering Locked Period Phase For User for each.

This function needs to execute daily and should be part of a scheduler of some sort.

onEnteringLockedPeriodPhaseForUser(userId)

onEnteringLockedPeriodPhaseForUser may be called on a different day than on the custom-field Pay_period_day but must be in a state of "selection" into CoBroker_Phase. This function sets the proper custom-fields into the corresponding entities so that it can transition into the "locked" phase and the properties associationship to be in-effect.

This function is called by onEnteringLockedPeriodPhase or by some ui widgets that are triggered by the user through a ui interaction.

onCoBrokerInactive(userId)

If the payment was declined, the user's selection must not be lost, yet the properties associationship for the previous payment period must be removed.

This function is called by onEnteringLockedPeriodPhase.

Printing

The property detail page needs to print perfectly, under all conditions, in a pdf format. A plugin may be needed to support this and we are ok with this. Choose the best plugin for the task that is free or sales for a one-time fee lower than \$100, and implement accordingly.

The criteria for acceptable printing are:

- 1. Parametrizable agents show could be all (up to all 4 agents would be displayed), or any given one (only one of the multiple agents are displayed).
 - a. A function should accept a userId as optional parameter to print (acquire a pdf). If that userId is associated with the property, it should include only the reference of that userId in the printing. If that userId is not associated with the property, an error should be raised. If no userId is specified, refer to all agents associated with the property.
- 2. Photo of the agent is shown (if available).
- 3. Agent(s) description is printed.
- 4. The property's listing-key needs to be printed.
- 5. Property details are shown (images, description, features).
- 6. A general publicity pointing back to every-listing.com is also printed.
- 7. QR-Code (top-right corner) pointing back to the corresponding property detail page url.

Custom-Fields

User

Users that are associated with an agent or co-broker user roles will hold these custom-fields.

Pay_period_day	A value between 1 and 27 corresponding to the day of each month the user is charged. If a user enrolls between the 28 and 31st on the first month, the value is set to 1.
CoBroker_Phase	Possible values are "selection" and "locked".
CoBroker_Searc h_criteria (list)	The saved search criteria and corresponding proportion. This is a list. This will hold the previous payment cycle value as well as the next one if CoBroker_Phase is "selection". Find a way to make them co-exist.
CoBroker_Manua I_properties (list)	The listing keys of each property manually selected. This is a list. This will hold the previous payment cycle value as well as the next one if CoBroker_Phase is "selection". Find a way to make them co-exist.
CoBroker_Agent _Mirror	The agent id to mirror. This is a list. This will hold the previous payment cycle value as well as the next one if CoBroker_Phase is "selection". Find a way to make them co-exist.

Property

The property post type already exists on the site, and these custom-fields are to be added for the management of the present requirement document.

CoBroker_slots_ta ken	Each property has up to 4 slots available. One is taken by the original listing agent, that means typically 3 are left. If the property was already associated with 3 co-brokers, the value would be zero. That value always needs to be maintained through new co-broker user associations.
CoBroker_user_id	The co-broker associated with the property. The associationship is made once the co-broker user is locked, not during the selection phase. This should include an associationship means by which the property got associated. 1 means by search-criteria, 2 means by manual selection and 3 means by agent mirroring. This is a list.

To-do list/Challenges - In-scope

1. Improve the search experience

- a. Isolate the country search component
- b. Isolate the Province search component
- c. Dynamically populate the city search component with sectors and cities based on Country and Province.
- 2. Create a selection by search-criteria user-experience.
 - a. Hook to the existing user profile user-experience. No need to re-create an entire new user-experience to flow into this functionality.
 - b. Leverage the existing search-criteria dialog. This does not need to be rewritten from scratch.
 - c. Leverage the search mechanisms already in place. No need to re-implement how properties are matched to a search criteria.
 - d. Manage the custom-fields in User CoBroker_Search_criteria, and in properties CoBroker_slots_taken and CoBroker_user_id according to usage.
- 3. Create a manual selection user-experience
 - a. Hook to the existing user profile user-experience. No need to re-create an entire new user-experience to flow into this functionality.
 - b. Leverage the existing favorite user-experience (storing into cookies if the user is not signed-in, and storing into the database if signed-in).
 - c. Manage the custom-fields in Properties CoBroker_slots_taken and CoBroker user id according to usage.
- 4. Create an agent mirroring user-experience
 - a. Add the agent search criteria as a search component.
 - i. Do not destabilize other uses of the search components where they should not see the agent search component.
 - ii. Populate the edit with phone numbers and email addresses so that it is truly a shortcut.
- 5. Create a property selection widget
 - a. The widget should only be visible for user role "co-broker".
 - b. The widget should update based on user interactions.
 - c. The refresh link should force an update based on new or purge properties.
- 6. Create processes
 - a. Create the onEnteringLockedPeriodPhase process.
 - i. Make this process run daily.
 - ii. Handle emails correctly (in terms of content as well as in terms of processing).
 - iii. Manage states correctly.
 - b. Create the onEnteringLockedPeriodPhaseForUser(userId) function.
 - i. Hook to the right UI widgets so that users may close the selection period manually.
 - c. Create the onCoBrokerInactive(userId) function.
 - Manage states correctly.
- 7. Improve the property detail page
 - a. Toggle on and off agents when there are multiple.

b. Leave toggled-on the unique agent if there is only one.

Out-of-Scope

- 1. While improving the search experience...
 - a. UI/UX and search functionality is already in place and functional. Do not rewrite, but do re-use.
 - b. Countries, provinces, cities and sectors are already managed into jurisdiction post types.
- 2. While creating a selection user-experience...
 - a. The user-profile already has a tabbed UI, you will just need to add one new tab if the user has the user-role "co-broker".
- 3. While creating a selection by search-criteria user-experience...
 - a. There is no need to rewrite the search functionality, use what is already in place.
 - b. There is no need to recreate the list functionality that displays matched properties, use the functions already available.
- 4. While creating a manual selection user-experience...
 - a. Use the favorites functionality already implemented.
 - b. Use the new_property_list_insert function to wrap a check-box around each property.
- 5. While creating a selection by agent mirroring user-experience...
 - a. There is no need to rewrite the search functionality, use what is already in place.
 - b. There is no need to recreate the list functionality that displays matched properties, use the functions already available.
- 6. While Improving the property detail page...
 - a. The property detail page exists and is functional, no need to rewrite it, it just needs to be improved.
- 7. While interfacing with the payment system...
 - a. Do not fully implement, we will integrate it, but do create functions for us to integrate into.