Use Case, Business Rules, Data

UC01 - Manage Listing

Description:

Describes a process where Seller's agent creates, updates and deletes real estate listings. Seller's agent provides property details, and the system validates input, assigns a unique Listing ID, and updates the listing status.

Actors:

- Primary: Seller's agent
- Secondary: Listing System

Pre-Conditions:

Seller's agent must be logged into the system.

Basic Flow:

Step	Alternative Flow
1. This use case starts when Seller's agent selects to create a new listing by providing the following listing information: • DE001 – Property Type (M) • DE002 – Property Description (M) • DE003 – Property Address (M) • DE004 – Number of Bedrooms (M) • DE005 – Number of Bathrooms (M) • DE006 – Year Built (M) • DE007 – Original Price (M) • DE008 – Updated Price (O) • DE009 – Gross Annual Taxes (M) • DE010 – Maintenance Fees (O) • DE011 – Parking (M) • DE012 – Locker (M) • DE013 – Listing Agent Name (M) • DE014 – Room Sizes (O)	AF01 – Update Existing Listing AF02 – Delete Listing AF03 – Condo/Townhouse Property Type
2. System validates that all mandatory information is provided, and the data entered has acceptable values.	AF04 – Invalid User Input
3. After a listing is created, system automatically assigns a new Listing ID to the newly created listing and retains it with the Listing Agent ID. • DE015 – Listing ID • DE016 – Listing Agent ID	
4. User chooses to "Save draft" or "Publish" the listing.	
5. System determines and assigns the status of the listing based on the "Save draft" or "Publish" choice. • BR01 – Determine Listing Status • DE017 – Listing Status	
6. Use case ends.	

AF01 – Update Existing Listing

Step	Alternative Flow
1. This flow starts at step 1 of basic flow when Seller's agent selects to update an existing listing.	
2. User searches for the listing by providing at least one of the following search criteria:	

Step	Alternative Flow
• DE018 – Listing Agent (O) • DE019 – Listing Address (O) • DE020 – Listing Reference ID (O)	
3. System returns listings that match the search criteria and determines if the listings are allowed to be viewed, updated or deleted. • BR02 - Determine Listing Permissions	AF05 – No Listings Match the Provided Criteria

4. User selects the listing wanted and performs update if permitted.
   • DE001 – Property Type (M)
   • DE002 – Property Description (M)
   • DE003 – Property Address (M)
   • DE004 – Number of Bedrooms (M)
   • DE005 – Number of Bathrooms (M)
   • DE006 – Year Built (M)
   • DE007 – Original Price (M)
   • DE008 – Updated Price (O)
   • DE009 – Gross Annual Taxes (M)
   • DE010 – Maintenance Fees (O)
   • DE011 – Parking (M)
   • DE012 – Locker (M)
   • DE013 – Listing Agent Name (M)
   • DE014 – Room Sizes (O)
	AF03 – Condo/Townhouse Property Type

5. System validates that the data updated has acceptable values.	AF04 – Invalid User Input
6. This flow returns to step 4 of basic flow.	

AF02 – Delete Listing

Step	Alternative Flow
1. This flow starts at step 1 of basic flow when Seller's agent selects to delete an existing listing.	

2. User searches for the listing by providing at least one of the following search criteria:
   • DE018 – Listing Agent (O)
   • DE019 – Listing Address (O)
   • DE020 – Listing Reference ID (O)	

3. System returns listings that match the search criteria and determines if the listings are allowed to be viewed, updated or deleted.	AF05 – No Listings Match the Provided Criteria

Step	Alternative Flow
• BR02 - Determine Listing Permissions	
4. User selects the listing wanted and performs deletion if permitted.	
5. When user attempts to delete a listing, system prompts them to confirm the deletion.	
6. System deletes the listing after user confirmation, else dismiss the prompt.	
7. Use case ends.	

AF03 – Condo/Townhouse Property Type

Step	Alternative Flow
1. This flow starts at step 1 of basic flow or step 4 of alternative flow 1 when Seller's agent selects condo/townhouse as Property Type. • DE001 – Property Type (M)	
2. System makes Maintenance Fees a mandatory field. • DE010 - Maintenance Fees (M)	
3. This flow returns to step 1 of basic flow or step 4 of alternative flow 1.	

AF04 – Invalid User Input

Step	Alternative Flow
1. This flow starts at step 2 of basic flow or step 5 of alternative flow 1 when user input is not valid.	
2. System displays an error message to correct the entered information.	
3. This flow returns to step 1 of basic flow or step 4 of alternative flow.	

AF05 – No Listings Match the Provided Criteria

Step	Alternative Flow
1. This flow starts at step 3 of alternative flow 1 or 2 when no listings match the provided search criteria.	
2. System lets user know to update the search criteria.	
3. This flow returns to step 2 of alternative flow 1 or 2.	

AF06 – User Cancel the Action

Step	Alternative Flow
1. This flow starts at any step when user requests to cancel the current action.	
2. System prompts user to confirm the cancellation.	
3. System cancels the action and returns user to previous screen, else dismiss the prompt.	
4. Use case ends.	

EF01 – System Error

Step	Alternative Flow
1. This flow starts at any step when system error occurs.	
2. System informs user to try another time.	
3. Use case ends.	

Business Rules

BR01 – Determine Listing Status

When a listing is created or updated, the system will assign a status based on the user's action:
- If the user selects "Save draft", DE017 – Listing Status = "Draft"
- If the user selects "Publish", DE017 – Listing Status = "Listed"

BR02 - Determine Listing Permissions

Listing is allowed to be updated/deleted when the agent requesting the update/deletion is the same agent who originally created the listing: User ID (logged in) = DE016 – Listing Agent ID

Otherwise listing can only be viewed.

Data Dictionary

ID	Business Name	Description	Valid Values	Calculation Rules	Sample
DE001	Property Type	Type of property	condo house townhouse		condo
DE002	Property Description	Description of property			This 500 square foot single-family home has 1 bedroom. It is located at 70 Sheppard

					Avenue, Ontario, Canada.
DE003	Property Address	Address of property			70 Sheppard Avenue, Ontario, Canada
DE004	Number of Bedrooms	Total number of bedrooms			3
DE005	Number of Bathrooms	Total number of bathrooms			3
DE006	Year Built	The year when property is built			2018
DE007	Original Price	Original price when new listing			$4000
DE008	Updated Price	Updated price when modifying listing			$5000
DE009	Gross Annual Taxes	The yearly property tax calculated from the property's assessed value and local tax rate			$1000
DE010	Maintenance Fees	Maintenance fees of the property. It is mandatory if property type is condo/townhouse			$500
DE011	Parking	Parking spaces			1
DE012	Locker	Locker spaces			1
DE013	Listing Agent Name	Name of listing agent of the property			Sam Smith
DE014	Room Sizes	Size of the room			500
DE015	Listing ID	System generated ID assigned to the listing as unique identifier			LST-12345
DE016	Listing Agent ID	System generated ID assigned to the listing agent as unique identifier			AGT-00123
DE017	Listing Status	Listing status of the property	Draft Listed		Draft
DE018	Listing Agent	Name of listing agent of the property			Sam Smith

DE019	Listing Address	Address of property			70 Sheppard Avenue, Ontario, Canada
DE020	Listing Reference ID	System generated ID assigned to the listing as unique identifier			LST-12345