Software Requirements Specification

for

app RE Brokerage

Version 1.0

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Revision History

Name	Date	Reason For Changes	Version

1.   Introduction

1.1. Purpose

To list out and describe the different modules and functionalities involved in the development of a MVP for a Real Estate app.

1.2. Document Conventions

'*'- The fields are mandatory.

1.3. Intended Audience and Reading Suggestions

This document is intended for project managers. It lists information needed for the estimation and development of a real estate web application like product modules, functions, basic UI and features, performance requirements, security requirements, etc.

1.4. Product Scope

The product is a web application that will help buyers and tenants find verified properties in UAE and make investment decisions with the help of tools like property videos, property description and highlights, amenities and floor plans, local information, pricing trends, agents contacts to assist with property viewings, transaction tracking and property personalization features.

The aim is to give customers an immersive experience when viewing properties and helping them make the right purchase decisions using the latest technology and pricing tools in the Proptech space.

1.5. References

None

2.   Overall Description

2.1. Product Perspective

An online tech brokerage that lists and aggregates properties in the UAE by leveraging the latest technology to help customers make decisions related to property sale, purchase or rentals and maintaining transparency in transactions by connecting all stakeholders. There will be 4 user personas for the admin panel - landlord, broker, agent & app admin - to leverage the functionalities of the product and do actions necessary for a seamless user experience.

2.2. Product Functions

The following functions are imperative in order for the deployment of the MVP:

- Home page for search functionalities, introduction, blog space.

- 1 Static page for listing Landlords.
- 1 Static page for listing Brokerages.
- Property detail page with map views.
- Property detail page listing all details related to the property, separate for sale and rentals.
- Tenant application form.
- User login for Customers, Landlords, brokerages, app admins.
- Landlords and brokerage registration pages with forms.
- Landlord admin panel - 10 dynamic pages
- Brokerage admin panel - 10 dynamic pages
- Agent Admin panel - 13 dynamic pages
- App admin panel for managing data and access privileges.

2.3. User Classes and Characteristics

Landlords - These users can upload data and content relating to the property. They are involved before a listing is created and will monitor updates to their listing in real time.

Brokerages - These users can upload data and content relating to the property and monitor how their listings are performing in real time.

Buyers/Tenants - These users can search and filter properties, save properties attributes, view transaction updates, view/edit their account details.

2.4. Operating Environment

Web browsers primarily. For certain pages, responsive interfaces will be required. Android/iOS development is not required at this stage.

2.5. Design and Implementation Constraints

The development of the MVP is expected to be completed in 2 months. Constant progress updates and integrated testing is needed during this timeframe. The web app must meet acceptable performance benchmarks.

The tech stack for the MVP should use popular and well supported technologies. The development team will be expected to share access to the source code throughout development for proactive feedback.

2.6. User Documentation

The development team must document the infrastructure requirements and deployment steps, including but not limited to any third-party tools or libraries required. The development team must also document the steps needed for setup of different user personas and limitations (if any).

2.7. Assumptions and Dependencies

None.

3. External Interface Requirements

3.1. User Interfaces

Roboto font, web app must be built for web interfaces. About 20% of the app pages will be required to be mobile responsive.

3.2. Hardware Interfaces

None

3.3. Software Interfaces

None

3.4. Communications Interfaces

None

4. System Features (Priority: Low of 1 to a high of 9)

4.1. Landlord landing page (static page)

4.1.1 Description and Priority

This page explains the value proposition for landlords to list with our brokerage service by showcasing how our platform works, tools we offer, intro videos, real estate updates. **PRIORITY LEVEL 9**

4.1.2 Stimulus/Response Sequences

List your property button should route the landlord to the account creation page.

4.1.3 Functional Requirements

None

4.2. Brokerage landing page (static page)

4.1.1 Description and Priority

This page explains the value proposition for brokerages to list with our platform by showcasing how our platform works, tools we offer, intro videos, real estate updates. **PRIORITY LEVEL 9**

4.1.2 Stimulus/Response Sequences

Become a partner button should route the broker representative to the account creation page.

4.1.3 Functional Requirements

None

4.3.   Home page (static page)

4.1.1   Description and Priority

Main landing page for users, where they can search for properties to buy/sell, see how the platform can help them, search properties based on amenities, view latest property news in UAE. **PRIORITY LEVEL 9**

4.1.2   Stimulus/Response Sequences

Clicking on buy or sell tabs should just move the line below to highlight the chosen item.

4.1.3   Functional Requirements

REQ 1: If the highlighted line is under buy, the user should be routed to the buy properties page.

REQ 2: If the highlighted line is under rent, the user should be routed to the rental properties page.

4.4.   Property Search

4.1.1   Description and Priority

Enter location to search for a property in a particular area by choosing either buy or rent. **PRIORITY LEVEL 9**

4.1.2   Stimulus/Response Sequences

Either Buy (Default) or Rent should be selected by the user before location entry. Users enter at least 3 letters for a location in a search box and suggestions are populated in a dropdown for selection. User hits enter or clicks the search icon to view a search results page.

4.1.3   Functional Requirements

REQ 1: Minimum 3 characters should be entered to populate dropdown results.

REQ 2: Blank entry search should display all the list of properties without any filters applied.

REQ 3: Buy should be the default selection

4.5.   Property Filters

4.2.1   Description and Priority

Different filters to filter out properties based on users preferences. **PRIORITY LEVEL 9**

4.2.2   Stimulus/Response Sequences

Users can choose between multiple filters which may be dropdown lists or text boxes. Drop down lists may have checkboxes or text boxes to choose/enter requirements. By default, a rent or buy filter will exist. After each chosen option or entered text, the feed below the filters should load to show the updated results.

Filter options:

- Property type

- - Apartment
  - Villa
  - Townhouse
  - Penthouse
  - Compound
  - Duplex
  - Full Floor
  - Hotel & Hotel Apartment
- Beds
- Baths
- Amenities
  - Parking
  - Gym
  - Swimming pool
  - Pets
  - Laundry
  - Central A/C
  - Maids Room
  - Concierge Service
  - View of Landmark
  - Private Garden
  - Built in Kitchen Appliances
  - Covered Parking
  - Built in Wardrobes
  - Balcony
  - Study
  - Built in closet
  - Children's play area
- Price range
  - Min. Price
  - Max. Price
- Rental Period
  - Yearly
  - Monthly
  - Weekly
  - Daily
- Property Area
  - Min. Area
  - Max. Area
- Furnishing
  - All
  - Furnished
  - Unfurnished
  - Partly Furnished

4.2.3 Functional Requirements

REQ 1: Immediate page updation after each filter change

REQ 2: Text entries should refresh the feed only after clicking enter in the keypad or keyboard.

4.6. Property Application form

4.1.1 Description and Priority

Form for tenants to send their interest in renting a property. **PRIORITY LEVEL 7**

4.1.2 Stimulus/Response Sequences

Users have to enter the following form details and click send so as to send the form to the landlord as well as the platform's brokerage:

- First name*
- Last name*
- Phone number*
- Email*
- What length of lease are you looking for? (1 single choice)*
- Why are you moving?
- What date would you like to move in? (Date chooser)*
- Total occupants* (number dropdown)
- What is your approximate monthly household income*
- Do you have pets? If so, what kind?*
- Do you or anyone you will be living with smoke or vape? *
- What is your estimated credit score?
- Have you ever been evicted? *
- Do you have a criminal history? *
- Have you filed for bankruptcy in the last 7 years? *
- Are there any issues I should know about before running a background screening for the adults in the household?*

4.1.3 Functional Requirements

REQ 1: Send should forward the form to the platform's brokerage panel as well as the admin panel of the landlord who has listed his property on the platform for rent.

4.7. Login page

4.3.1 Description and Priority

Allow customers/landlords/brokerages to login to the platform or create an account. **PRIORITY LEVEL 9**

4.3.2 Stimulus/Response Sequences

Click the login/sign up button present on most pages. It will go to the login/sign up page, both options present on the same page. Users can login to their account by entering their registered email id and password or click the buttons for Google login. Accounts that are not yet registered or do not want to use the google login, can click the 'create new account' button which will take them to the create account page.

4.3.3 Functional Requirements

REQ 1: Google sign up/in should access its APIs to login/signup the user to the platform.

REQ 2: User entry - Email should be regex validated

REQ 3: User entry - Password minimum length to be 8 characters, must contain lowercase alphabet, number and symbol

4.8. Create account page

4.1.1 Description and Priority

Allow tenants/landlords/brokerages to create an account. **PRIORITY LEVEL 9**

4.1.2   Stimulus/Response Sequences

Users have to enter an email ID and a password. If users choose the checkbox 'I am a landlord or a brokerage' and click SUBMIT - they will go to landlord/brokerage onboarding pages. If the user is a tenant, they will be taken to a customized and personalized home page for the user. (This will be static data).

4.1.3   Functional Requirements

REQ 1: User entry - Email should be regex validated

REQ 2: User entry - Password minimum length to be 8 characters, must contain lowercase alphabet, number and symbol

4.9.   Forgot password feature (optional)

4.5.1   Description and Priority

Allow customers/landlords/brokerages to generate reset password email through a 'Forgot Password' button. **PRIORITY LEVEL 3**

4.5.2   Stimulus/Response Sequences

Users have to enter their email id to recover the account

4.5.3   Functional Requirements

REQ 1: Check for valid accounts in a system with email based accounts.

REQ 2: Send password reset email in simple format. Format to be finalized.

REQ 3: Click on password reset should take the user to the website for password reset.

REQ 4: One reset password link should only work for one password reset. Should be invalidated after use.

4.10. Brokerage onboarding form

4.6.1   Description and Priority

Allow a brokerage to create an account. **PRIORITY LEVEL 8**

4.6.2   Stimulus/Response Sequences

Users have to enter the following form details to complete their onboarding process, with simple frontend validations:

- Name*
- Address*
- Country*
- City*
- Managing broker's first name*
- Managing broker's middle name
- Managing broker's last name*
- Phone*
- Email*
- Trakheesi number*
- ORN - Office registration number*
- BRN - Brokerage registration number*

Checkbox accepting platform T&Cs (on a separate page)

4.6.3   Functional Requirements

REQ 1: Entered form details should be stored in the DB.

REQ 2: Checkbox is mandatory to be checked before proceeding

REQ 3: Validate all fields for valid data

REQ 4:

Trakheesi number* - Datatype "numeric"

ORN - Office registration number* - Datatype "numeric"

BRN - Brokerage registration number* - Datatype "numeric"

REQ 5: Check for mandatory fields

4.11. Landlord onboarding form

4.7.1   Description and Priority

Allow a landlord to create an account. **PRIORITY LEVEL 8**

4.7.2   Stimulus/Response Sequences

Users have to enter the following form details to complete their onboarding process:

- Total properties managed (mandatory)*
- Landlord first name*
- Landlord last name*
- Phone*
- Email*
- Checkbox accepting app T&C.*

Onboarding form should prompt user to enter first property details.

4.7.3   Functional Requirements

REQ 1: Entered form details should be stored in the DB.

REQ 2: Checkbox is mandatory to be checked before proceeding

REQ 3: Validate all fields for valid data

4.12. Add First Property Details form (Landlord login)

4.8.1   Description and Priority

Allow a landlord to add the first property at the time of onboarding. **PRIORITY LEVEL 2**

4.8.2   Stimulus/Response Sequences

Users have to enter the following form details to complete their onboarding process:

- Skip button should route the user to the Landlord dashboard page
- Continue button should route the user to the Add a property page which should have the entered information already added.

4.8.3   Functional Requirements

- Users can click continue only if all fields of the form are filled in.

- The entered details must be stored temporarily and then added automatically to the form on the Add a property page.

4.13. Add Property Details form (Landlord admin panel)

4.9.1   Description and Priority

Allow a landlord to create a property. **PRIORITY LEVEL 6**

4.9.2   Stimulus/Response Sequences

Users have to enter the following form details to complete their onboarding process:

- Property address*
- Property name
- Address line 2
- City*
- Country*
- Property Purpose*
- Property sale status*
- Documents related to property*
- Rent/Year or Sale value*
- Rent frequency*
- Contract period*
- Vacancy notice period
- Maintenance fee
- Paid by
- Payment method*
- Checkbox - allow tenant to submit counter offer
- Ad permit*
- Instructions*
- Notes

4.9.3   Functional Requirements

REQ 1: Document read, write and delete

REQ 2: If property purpose is sale is chosen, then following changes will appear:

- Property sale status drop down appears below property purpose
- Pricing details will only have fields:
  - Sale Value (instead of rent/year)*
  - Payment method*
  - Checkbox - allow buyer to submit counter offer

4.14. Landlord profile pages

4.10.1   Description and Priority

Allow a landlord to edit profile details, upload documents, set email notification priorities. **PRIORITY LEVEL 6**

4.10.2   Stimulus/Response Sequences

Landlord users can edit the following details in their profile:

- Total properties owned*
- Landlord first name*

- Landlord last name*
- Phone*
- Email*
- landline phone*
- extension*
- property name*
- security - old and new password

The document tab can be used to upload or remove documents pertaining to the landlord that will be saved in an online database for future recurring use. Notifications can be turned ON/OFF for certain functions.

4.10.3 Functional Requirements

REQ 1: Edited form details should be updated in DB.

REQ 2: Document read and write to database.

REQ 3: Notification toggle ON/OFF switch controls

4.15. Brokerage Profile page

4.11.1 Description and Priority

Allow a brokerage to edit profile details, upload documents, set notification priorities. **PRIORITY LEVEL 4**

4.11.2 Stimulus/Response Sequences

Brokerage users can edit the following details in their profile:

- Total properties managed (mandatory)*
- Brokerage first name*
- Brokerage last name*
- Phone*
- Email*
- Landline phone*
- extension*
- property name*
- security - old and new password.

The document page can be used to upload or remove documents that will be saved in an online database for future use. Notifications can be turned ON/OFF for certain functions.

4.11.3 Functional Requirements

REQ 1: Edited form details should be updated in DB.

REQ 2: Document read and write to database.

REQ 3: Notification toggle ON/OFF switch controls

4.16. Property listings portfolio pages

4.12.1 Description and Priority

Allow a landlord/brokerage to view, edit or delete their property listings.
PRIORITY LEVEL 7

4.12.2 Stimulus/Response Sequences

Listed properties can be clicked to have a detailed view of the performance metrics (static). View type change buttons should switch between list and block views.

4.12.3 Functional Requirements

REQ 1: Delete function should ask a prompt "OK" and "Cancel" whether they need it to be done for sure. Cancel button should be highlighted while the OK should be white color, to push the user to not delete it.

REQ 2: Edit button should take the managing Broker and landlord to their respective Edit property pages.

4.17. Property updates page

4.1.1 Description and Priority

Allow a landlord/brokerage to see progress updates to properties listed with the platform. **PRIORITY LEVEL 7**

4.1.2 Stimulus/Response Sequences

Properties are listed as dropdown clickable blocks, displaying a progress bar in each block. Search is used to filter the properties the user has listed, if there are more than 1.

4.1.3 Functional Requirements

REQ 1: Progress bar will be static in MVP set at around 60%.

REQ 2: Search for property name should only be using alphanumeric characters and pages should continuously update after entering the first 3 letters with the relevant search condition.

REQ 3: Only one dropdown can remain open at one time.

4.18. Landlord/Brokerage Application Pages

4.1.1 Description and Priority

Allow a landlord/brokerage to see applications received from prospective buyers/tenants, negotiate the prices and also see negotiation history. Users can take actions like approving price, negotiating it or declining the price. **PRIORITY LEVEL 7**

4.1.2 Stimulus/Response Sequences

Download button will download the document submitted by the tenant. View history button will navigate to a page which will show the negotiations done between the tenant and the landlord.

- Approve (green) button will mean the landlord accepted the price and property will move to the transactions page.
- Negotiate (yellow) button will bring up a dialog box to enter a negotiation amount. A checkbox will be present if the landlord wants to fix the price cap and not negotiate any further.
- Reject (red) button means the landlord is not willing to accept the tenants pricing and wishes to not proceed further with the transaction. The property will move to the closed tab in the transactions page. Brokerages will receive a dialog box when the reject button is clicked to enter the reason for rejection.

4.1.3 Functional Requirements

REQ 1: Approve should take the user to the transaction page.

REQ 2: Download should save document to user folder.

REQ 3: Price cap checkmark will not allow brokerage agents to click the negotiated box.

REQ 4: A dialog box will appear for BROKERAGES when the reject button is clicked in order to enter the reason for rejection.

4.19. Landlord/Brokerage Transaction Pages

4.1.1   Description and Priority

Allow a landlord/brokerage to view and filter details pertaining to the approved transaction. **PRIORITY LEVEL 7**

4.1.2   Stimulus/Response Sequences

Hover on property progress count will open a floating dialog with progress updates. Open filter will show the approved applications that have been moved to the transaction page and closed filter will show the rejected applications. Clicking on each individual transaction row will go to that transaction details page.

4.1.3   Functional Requirements

REQ 1: Hovering on the progress circle should display details of completions of different steps of the transactions Completed transaction headers will be displayed with green text.

REQ 2: Immediate page updation after each filter change.

4.20. Landlord property creation

4.1.1   Description and Priority

Form for landlords to add their properties basic details. **PRIORITY LEVEL 7**

4.1.2   Stimulus/Response Sequences

Users have to enter the following form details to create a draft of their first property before the official listing: Property reference image, Name, email, EID, PP, address, city, country, purpose, property documents, ad permit, instructions, notes. Once details are entered, the user clicks the next button to proceed to sign and upload the Form A agreement between broker and seller, followed by a thank you page with 2 buttons - Goto pending properties and goto dashboard.

4.1.3   Functional Requirements

REQ 1: Entered form details should be stored in the backend database under new pending properties that need to be listed.

REQ 2: All field marked '*' (except optional) are mandatory

REQ 3: Goto dashboard button should goto dashboard page

REQ 4: Goto pending properties page should goto properties page under pending tab.

4.21. Landlord Form A upload

4.1.1   Description and Priority

Agreement form between landlords and Propter, to be downloaded, signed and uploaded by the Landlord. **PRIORITY LEVEL 7**

4.1.2   Stimulus/Response Sequences

Users come to this page after clicking the landlord property creation page. They can download the form by clicking a big button with explanation text, and upload it back by clicking the upload button. The uploaded form can be deleted by clicking the red 'x' button. The next button in this page will goto thank you page. Back button goes to the previous page.

4.1.3   Functional Requirements

REQ 1: Access to system folders to download and upload a document.

4.22. Brokerage create listing

4.1.1   Description and Priority

Form for brokers to add their complete properties details. **PRIORITY LEVEL 7**

4.1.2   Stimulus/Response Sequences

Users have to enter the following form details to create a draft of their first property before the official listing:

- Property category*
- Property Type*
- Purpose*
- Title*
- Description*
- Beds*
- Baths*
- Occupancy status*
- Completion status*
- Ownership status*
- Property permit*
- Sale value*
- Payment method*
- Checkbox - allow buyer to submit counter offer
- Amenities
- Upload video
- Floor plans
- Date created
- Created by
- Last update.

4.1.3   Functional Requirements

REQ 1: Entered form details should be stored in the backend database.

REQ 2: All field marked '*' (except optional) are mandatory

REQ 3: Once broker clicks create listing, broker is taken to the properties page under pending

REQ 4: Once broker clicks create listing, it should come to the app admin team for review and approval in the backend.

4.23. Brokerage Edit listing

4.1.1 Description and Priority

Form for brokers to edit properties listing details they have added. **PRIORITY LEVEL 7**

4.1.2 Stimulus/Response Sequences

Brokers can edit the following form details and save the property from pending page or property listing page:

- Property category
- Type
- Purpose
- Rental type
- Title
- Description
- Beds
- Baths
- Occupancy status
- Completion status
- Ownership status
- Property permit
- Pricing details
- Amenities
- Upload video
- Floor plans
- Date created
- Created by
- Last update

4.1.3 Functional Requirements

REQ 1: All edits will reflect only after clicking SAVE button

REQ 2: All property listing edits from an online listing will once again go through the verification process before being approved for public viewing.

4.24. Performance Requirements

Page load for any page in the app should be a max of 3 seconds.

4.25. Security Requirements

Website must be SSL secured when deployed.
Certain details entered by brokerages must be encrypted so that it cannot be viewed by app (Like the title deed copy)

5.   Other Requirements

NA