**Data Definitions:**

1. **Real Estate Property:**

Real estate property is the main data element of this web application. Almost every data flow is related to this element. Property has 03(Three) categories. They are:

* 1. **Residential:**

Residential property is used for living purpose only. There are few types of residential property that are given bellow:

* + 1. **House:**

The house is an abstract object and describes the relevant structural characteristics of the offered property. Maybe also features like images and custom properties for further object presentation (Example: room sizes, number of rooms, interior features, front and back yard facilities etc)

* + 1. **Apartment:**

The apartment or its specialization as a shared room is an abstract object and describes the relevant structural characteristics of the offered property. Maybe also features like images and custom properties for further object presentation (Example: Internet availability and animal friendly etc.)

* + 1. **Townhome:**

The townhome is an abstract object and describes the relevant structural characteristics of the offered property that located in city area or in the city center.

* + 1. **Land / Lots:**

The land / lots is an abstract object and describes the relevant structural characteristics of the offered property that is undeveloped and free.

* 1. **Commercial:**

Commercial property is used for business purpose. There are few types of commercial property that are given bellow:

* + 1. **Office buildings:**

The office buildings are an abstract object and describes the relevant structural characteristics of the offered property that are used as office and business meeting, conference places.

* + 1. **Warehouses:**

The warehouses are an abstract object and describes the relevant structural characteristics of the offered property that are used as to store different goods and materials.

* + 1. **Retail store buildings:**

The retail store buildings are an abstract object and describes the relevant structural characteristics of the offered property that are used super markets, shopping mall, shops, show rooms etc.

* 1. **Industrial:**

Industrial property is used for production purpose. There are few types of industrial property that are given bellow:

* + 1. **Factories:**

The factories are an abstract object and describes the relevant structural characteristics of the offered property that are used to produce different products etc.

* + 1. **Mines:**

The mines are an abstract object and describes the relevant structural characteristics of the offered property that are used collect different types of metal from ground.

* + 1. **Farms:**

The mines are an abstract object and describes the relevant structural characteristics of the offered property that are used collect different types of metal from ground.

1. **Real Estate Professional:**

Real estate professionals are one of the main actors of this web application. They are some skilled and experienced persons who are waiting to help their clients. There are some types of real estate professionals given bellow:

* 1. **Property Agent:**

Property agent is skilled broker who helps customers in buying or selling their any kind of real estate properties. This agent has some unique specialties. There are three types of agents in our marketplace. They are:

* + 1. **Individual:**

Individual agents has their own license from government authority.

* + 1. **Team:**

Team is consist of two or more agents where team is operated by team lead and each team is situated within a company. Company has license and teams are using it.

* + 1. **Both:**

Some agents can be act as individual and also a team member.

* 1. **Property Improvement:**

Property improvement professionals are ready to help their clients in improving their properties.

* 1. **Property Manager:**

Property manager professionals are ready to help their clients in renting, mortgage properties.

* 1. **Property Builder:**

Property builder professionals are ready to help their clients in giving innovative building ideas and pathways to build new constructions in land/lots .

* 1. **Property Inspector:**

Property inspector professionals are ready to help their clients in inspecting their properties to evaluate loan and mortgage value.

* 1. **Property Photographer:**

Property photographer professionals are ready to help their clients in taking clear 2D, 3D and 360 degree views of their properties.

1. **Customer:**

Customer is one of main actors of this web application. There are several types of customer. They are as follows:

* 1. **Buyer:**

Buyer is willing to buy real estate properties.

* 1. **Owner / Landlord:**

Owner / Landlord is such kind of customers who wants to sell or mortgage or give rent their properties through real estate professionals.

* 1. **Renter:**

Renter is willing to take rent properties from owner / landlord. Renter is able to give feedbacks on rental properties so that next renter can get a overview on the property's actual condition and owner attitude.

* 1. **Lessee:**

Lessee can take lease of any properties from owner / landlord through real estate professionals. Same as renter, lessee also can give feedbacks on real estate properties.

Here renter is associated residential real estate properties and on the other hand lessee is associated with commercial and industrial real estate properties.

Any kind of customer has their own profile, account settings, subscription list. After successful registration into the website, a customer can edit his / her profile information, account settings and also subscription list.

In the profile, the following fields should be provided:

Profile picture

Title

First Name

Last name

Gender

Email address

Phone number

Postal Address

House / Flat / Room Number

Street

Plz

City

State

Country

Here, for profile picture, we will prefer JPEG format for better result, the maximum image upload size should be 2 MB and the profile picture area should be 160px - 180px square. So image must be uploaded at least 180px square and. Customer can also upload a larger image, preferably in a multiple of 180, such as 360, 540, or 720, and our system will resize it for customer. That means the system will always convert the raw image into thumbnail image and save the thumbnail image into server. For customer profile picture, system will always use thumbnail image.

The saving image in database is expensive in terms of space and performance than saving in file system. So, the image will be saved in server file system and image path will be saved in database.

Postal Address is necessary for future communication such as to send hard copy of land documents, rental / lease agreement, buy / sell deeds etc.

In the account settings section, customer can change his / her password, security question and answer, some account related settings such as “allow other user to contact with me”, “allow only agents to contact with me” etc.

In the subscription list, there will be a mailing list of different offers and newsletters, notifications, listing reports etc.

1. **Favorites:**

A customer or a listing agent can add a property to their “Favourites” list, which is a list of properties in which the customer/agent is interested. This list is saved with their account and can be retrieved later.

1. **Property Review / Feedback:**

A customer can provide a feedback and can rate a specific property. It contains customer id and property id as database table column.