

DATABASE SYSTEMS

REAL ESTATE WEBSITE

DUBAIProperties.COM

[Home](#) [Contact Us](#) [Sign In](#)



[Buy](#) [Sell](#) [Manage Properties](#)



We have sold over

7,000 +
properties

Team Members:

1. Ansh Choudhary (2021A7PS0164U)
 2. Naman Saxena (2021A7PS0134U)
 3. Suraj Saini (2021A7PS0235U)
 4. Sharashvan Shrivastava (2021A7PS0303U)
 5. Jeemit Dholu (2021A7PS0171U)
-

Introduction

In this report, we will discuss the development of a real estate website using Python and SQL. The project involves designing a database that can store and manage information related to real estate properties such as property listings, agents, buyers, sellers, and transactions. We will also discuss the website's functionalities, design of the website, user interface, and security measures implemented to protect the users' data.

Database Design

The first step in the project was to design the database schema. The database schema is a visual representation of the database structure, which includes tables, columns, and relationships. The schema was designed to support the following functionalities:

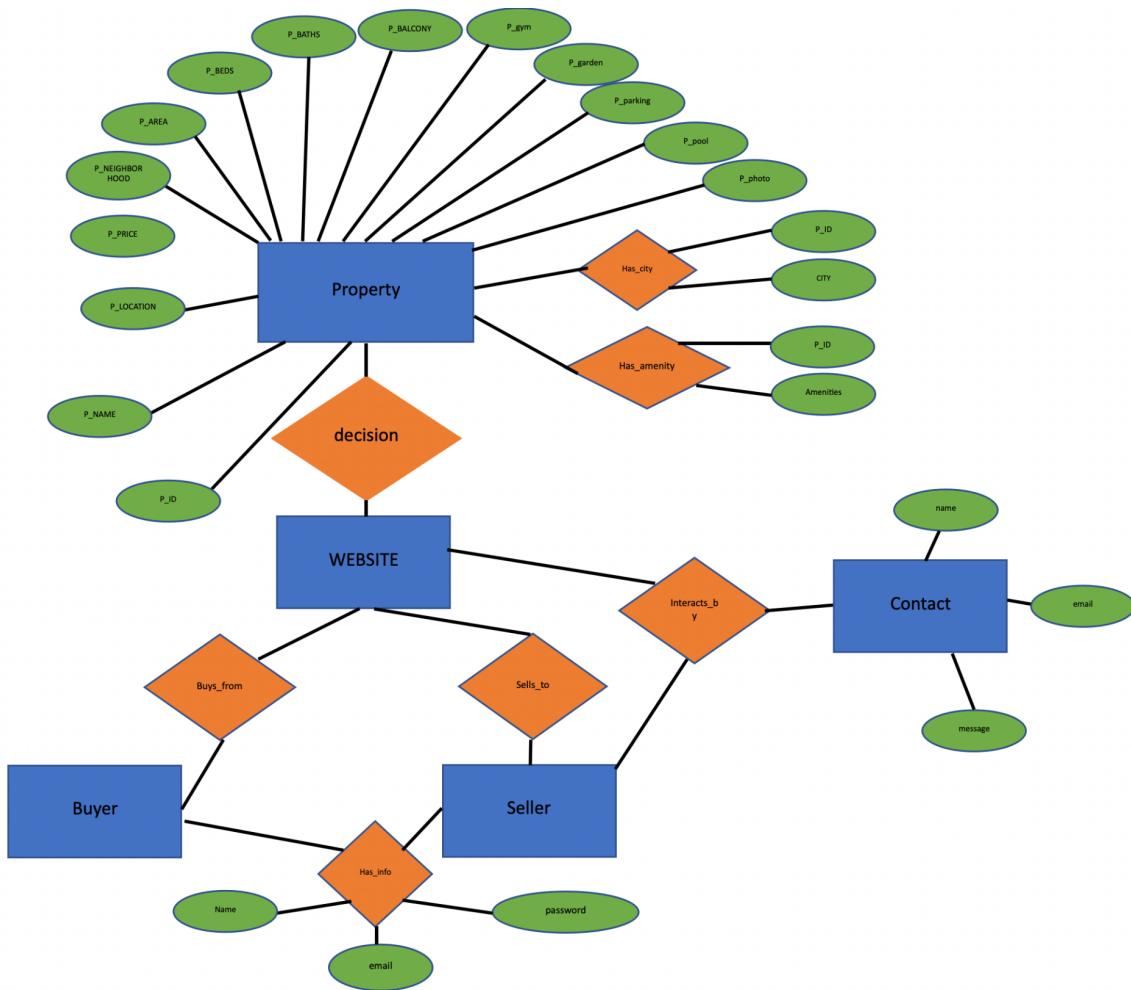
- **Property Listings:** The database should store information about the properties available for sale or rent, including the property type, location, price, and amenities.
- **Agents:** The database should store information about the real estate agents, including their contact information, experience, and areas of expertise.
- **Buyers:** The database should store information about the buyers, including their contact information, budget, and preferences.
- **Sellers:** The database should store information about the sellers, including their contact information, property details, and transaction history.
- **Transactions:** The database should store information about the transactions, including the buyer, seller, property, price, and date.

The **Properties Table** has the following attributes:

- **id** (integer): unique identifier for each property
- **neighborhood** (string): name of the neighborhood the property is located in
- **price** (integer): price of the property in AED
- **quality** (integer): a score from 1-10 indicating the quality of the property
- **number_of_bedrooms** (integer): number of bedrooms in the property
- **number_of_bathrooms** (integer): number of bathrooms in the property
- **size_in_sqft** (integer): total area of the property in square feet

- private_pool (boolean): indicates whether the property has a swimming pool (true or false)
- balcony (boolean): indicates whether the property has a balcony (true or false)
- private_garden (boolean): indicates whether the property has a garden (true or false)
- private_gym (boolean): indicates whether the property has a gym (true or false)

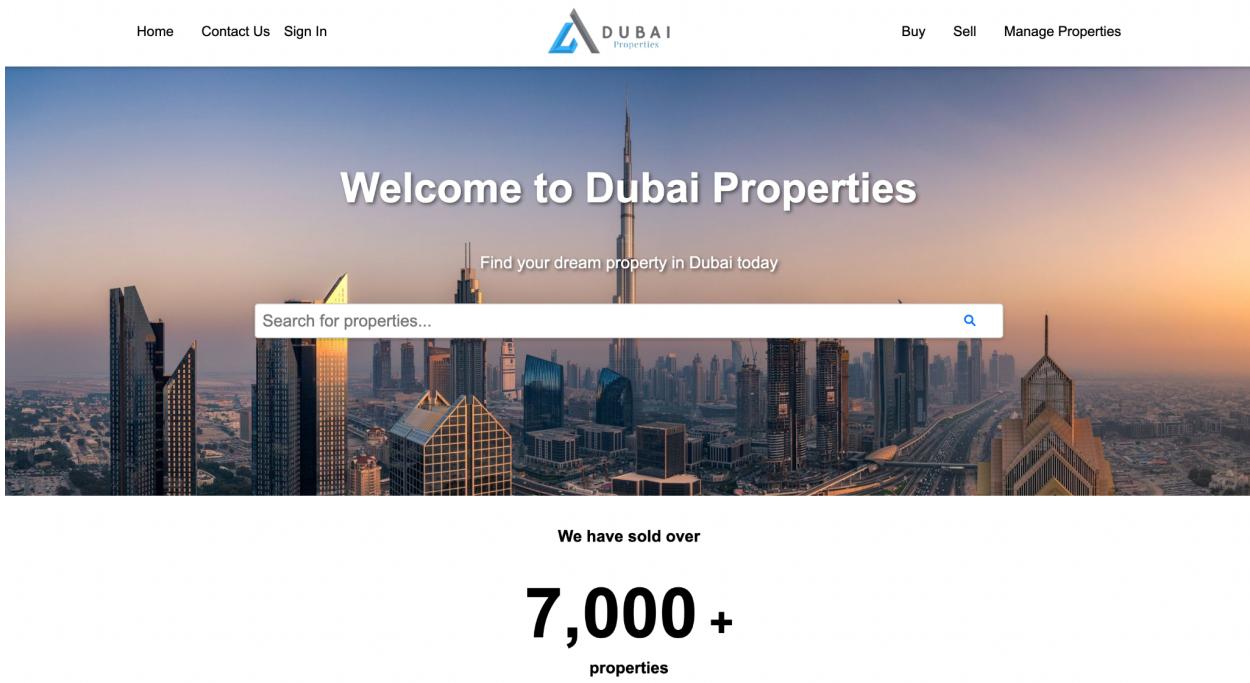
ER Diagram:



User Interface

The website's user interface was designed to be simple, intuitive, and user-friendly.

The **website's homepage** displays a search bar with a view of the beautiful dubai skyline in the background. It also displays an animation of the number of properties sold on the website starting from 0 and ending at 7000+.



On **scrolling down**, you will find options of either buying or selling properties which will guide you to the buy or sell pages respectively.

Get Home Recommendations

Sign in to get personalized recommendations on properties that match your preferences.

[Sign In](#)



Buy Homes

Find your place with an immersive photo experience and the most listings, including things you won't find anywhere else.

[Buy](#)



Sell Homes

No matter what path you take to sell your home, we can help you navigate a successful sale.

[Sell](#)

Follow us on social media

[Facebook](#) | [Twitter](#) | [Instagram](#)

The **Buy page** displays the latest property listings, along with their images and brief descriptions. The users can use the filter's section to filter the properties based on location, price, amenities, and many more attributes.

DUBAI REALESTATE

- [BUY](#)
- [SELL](#)
- [MANAGE PROPERTIES](#)
- [HOME](#)
- [CONTACT US](#)

Filters

Neighborhood

- Dubai Marina
- Bur Dubai
- Deira
- Jumeirah
- Downtown

Price:

Area:

Amenities

- Balcony
- Private Gym
- Private Garden
- Covered Parking
- Private Pool

[Search](#)

Properties List



Property Name 1

Address: 123 Main St, Dubai
 Property Type: Apartment
 Bedrooms: 3
 Bathrooms: 2
 Square Footage: 1500 sqft
 Price: AED 500,000

[View Property](#)



Property Name 2

Address: 456 Second St, Dubai
 Property Type: Villa
 Bedrooms: 5
 Bathrooms: 4

The **Sell page** displays a form asking the user to fill out details of the property they wish to be added to the website. On submission, the property will be listed on the website for selling.

The screenshot shows a "Sell Your Property" form on a website. The header includes a logo for "DUBAI" and navigation links for BUY, SELL, MANAGE PROPERTIES, HOME, and CONTACT US. The form fields are as follows:

- Property Name:** [Text input field]
- Location:** [Text input field]
- Neighborhood:** [Text input field]
- Total Size (sqft):** [Text input field]
- Covered Parking:** [Dropdown menu showing "Yes"]
- Private Pool:** [Dropdown menu showing "Yes"]
- Price:** [Text input field]
- Upload Photos:** [File input field showing "Choose Files No file chosen"]

A blue "Submit" button is located at the bottom left of the form area.

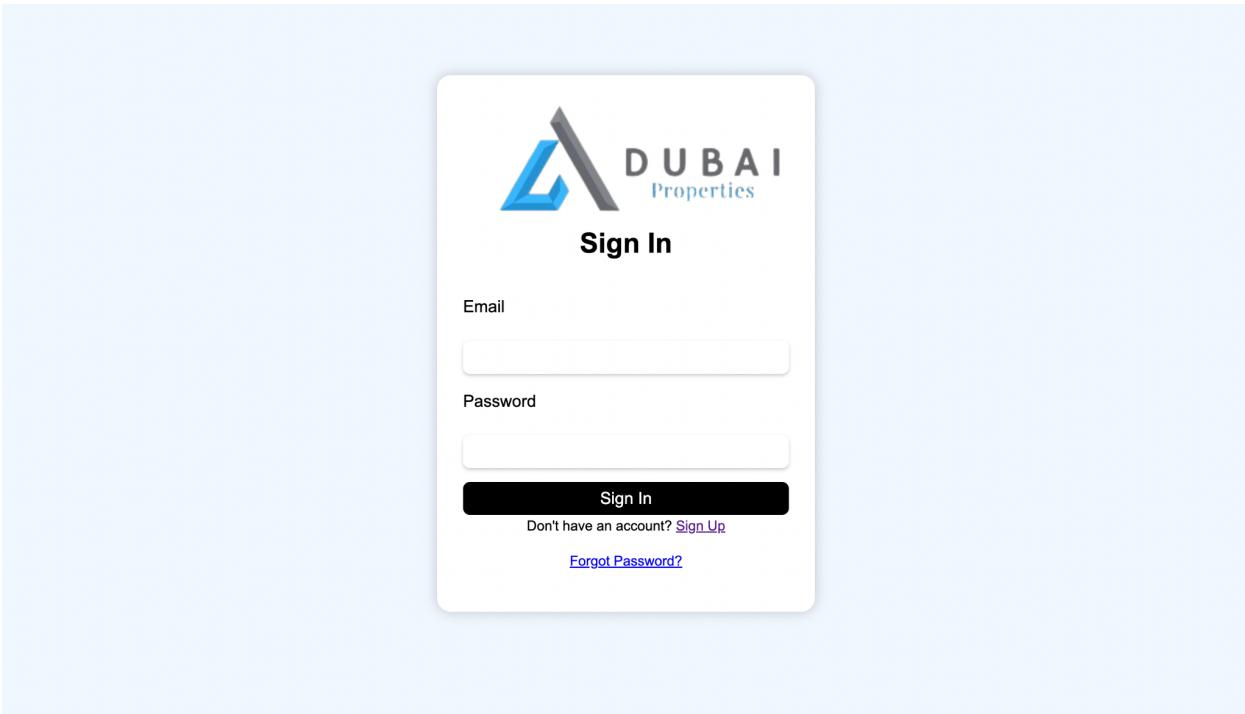
The **Cart page** displays the properties you have added to cart for purchase with a section showing your subtotal and a button to allow you to complete your purchase.

The screenshot shows the shopping cart section of the Dubai Properties website. At the top, there's a navigation bar with links for BUY, SELL, MANAGE PROPERTIES, HOME, and CONTACT US. Below the navigation, the title "Shopping Cart" is centered. On the left, there's a card for "Property Name 1" featuring a photo of a modern house with a porch. The card lists the following details:
Address: 123 Main St, Dubai
Property Type: Apartment
Bedrooms: 3
Bathrooms: 2
Square Footage: 1500 sqft
Price: AED 500,000
A blue "View Property" button is at the bottom of the card. To the right, a sidebar titled "Complete your order:" displays the subtotal: "Property 1" with a price of "AED 500,000". A blue "Proceed to Pay" button is located below the subtotal.

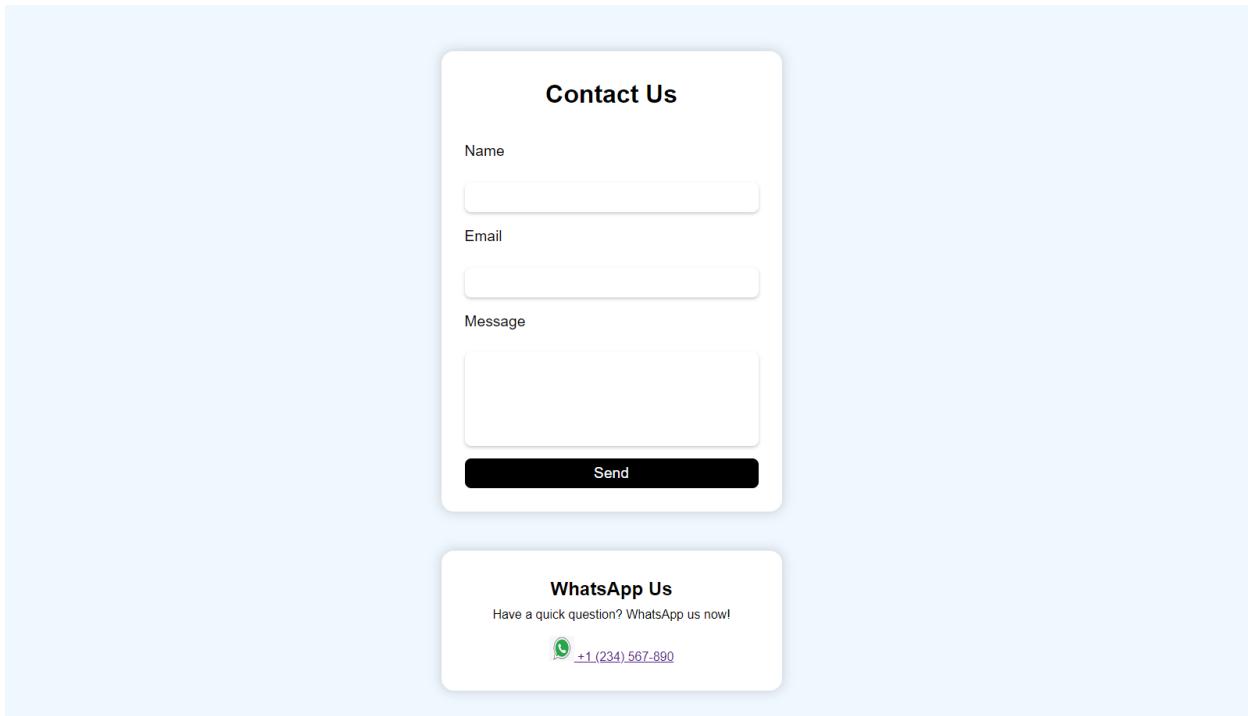
The **Sign-up registration page** allows the users to create an account, save their preferences, list their properties, and receive notifications about the properties that match their criteria.

The screenshot shows the sign-up page for Dubai Properties. The page features the company logo at the top left and a large "Sign Up" button in the center. Below the button are four input fields labeled "Name", "Email", "Password", and "Confirm Password". Each field has a corresponding placeholder text above it. At the bottom of the form is a black "Sign Up" button. Below this button, a link "Already have an account? [Sign In](#)" is visible.

The **Sign-in page** allows the users to Log-in to the account that they have already created and move ahead from the progress they made before.



The **Contact Us page** serves as a communication channel for users who have questions, concerns, feedback, or support requests.



Security Measures

To protect the users' data, the website was implemented with the following security measures:

- User Authentication: The users are required to create an account and provide their email and password to access the website's functionalities. The passwords are stored in an encrypted form in the database to prevent unauthorized access.
- Data Encryption: The sensitive data such as passwords and personal information are encrypted using industry-standard encryption algorithms to protect them from unauthorized access.
- Secure Connection: The website is accessed through a secure connection using HTTPS to ensure that the data exchanged between the user's browser and the server is encrypted and secure.
- Access Control: The database's access is restricted to authorized personnel only to prevent unauthorized access to the users' data.

Conclusion

In conclusion, the real estate website development project was successful in creating a functional and user-friendly website that allows the users to browse through the available properties, search for real estate agents, register as buyers or sellers, and track their transactions. The database schema was designed to support the website's functionalities, and the website's user interface was designed to be simple, intuitive, and user-friendly. The website's security measures were implemented to protect the users' data from unauthorized access and ensure their privacy and security.