



# Housepedia

Real Estate - Living Simplified  
(Website)



CS595 - Capstone Course  
Final Capstone Presentation (Fall 2022)

Under the Guidance of  
Prof. Ahmed Banafa



# OUR TEAM



**Shoumya Singh**

19566



**Gayatri Kolekar**

19615

# Agenda

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Screenshots of the  
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Frontend, Backend,  
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## Functionality

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Progress of the development

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## Demo

Demo Video

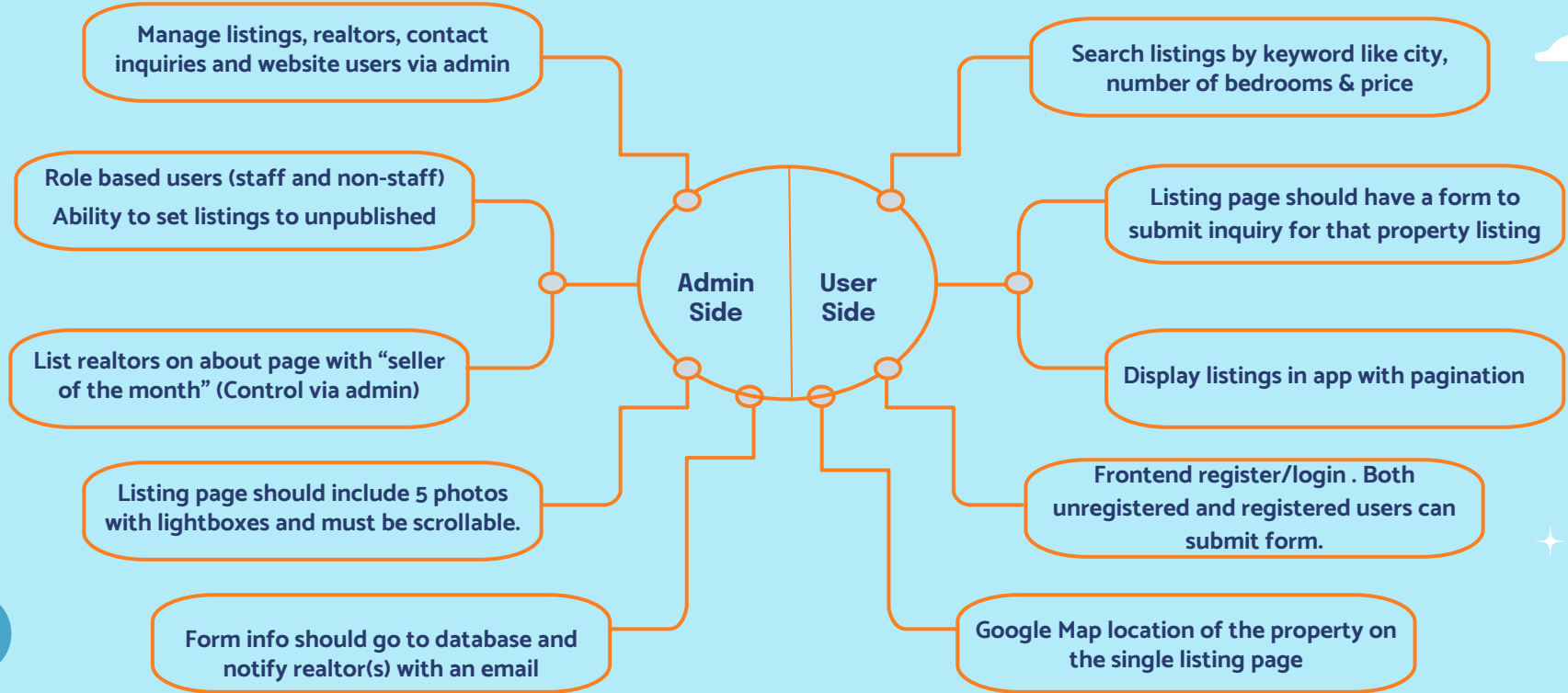
# What is Housepedia?

Housepedia is a real estate digital platform area where realtors, agents, and home buyers can connect to make a real estate purchase.

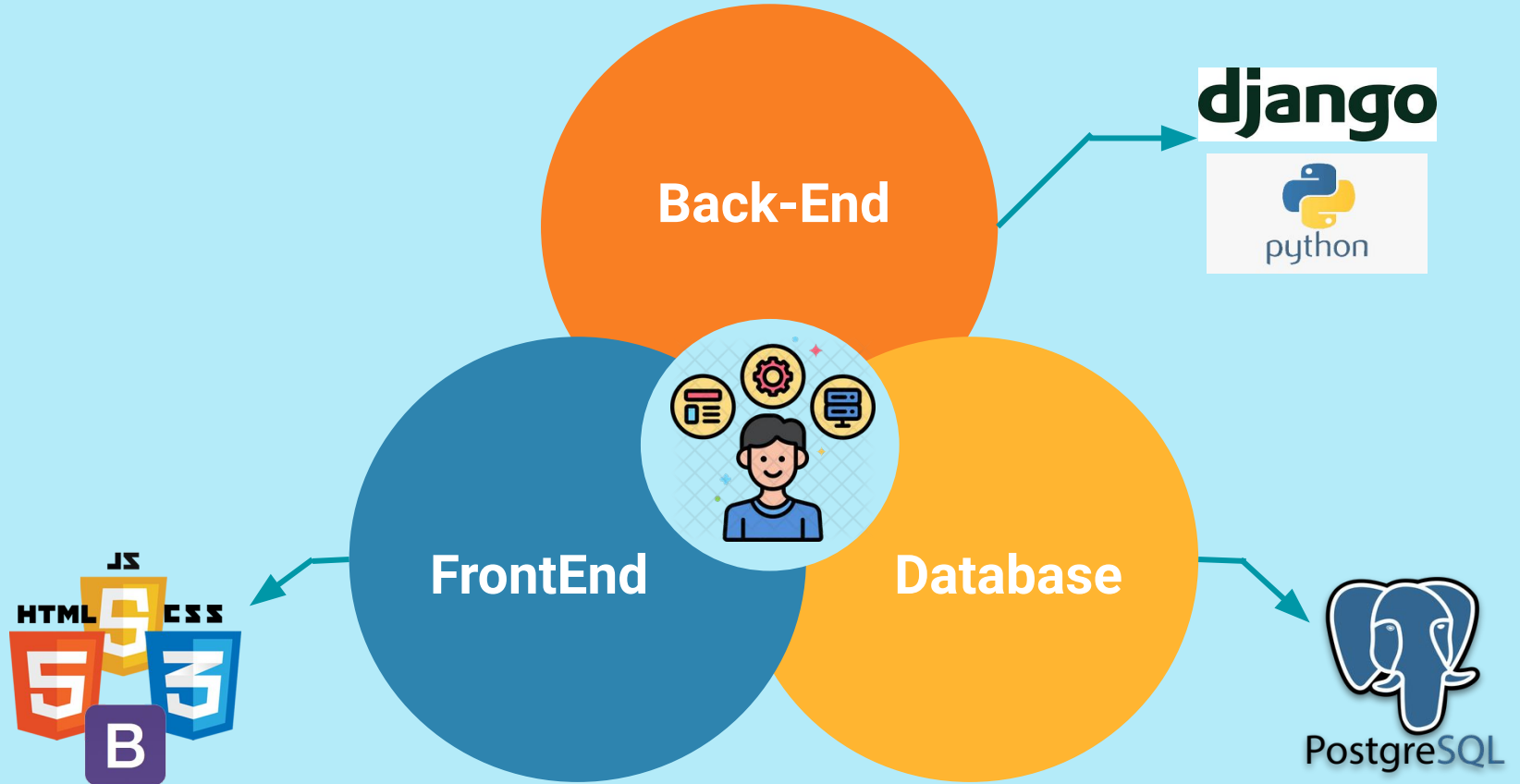
- Nowadays, 93% of home buyers in the United States use real estate websites to search for a home.
- Only 7% said they did not use online websites while looking for a home. As a result, nearly the entire sector went online.
- The goal of the Housepedia real estate platforms is to efficiently solve a user's problem: finding a new home in a quick and efficient manner.
- **To accomplish this, an app should**
  - ◆ Provide a sufficient number of property options for potential buyers and renters.
  - ◆ Allow users to find the best matching property.
  - ◆ Make it possible to contact a real estate agent.
  - ◆ Allow for efficient real estate research.



# Functionality Specification



# Full Stack Web Development Technique



# FrontEnd Pages

## → Home Page

- ◆ Register, Login & Logout
- ◆ View users Dashboard
- ◆ Property Search
- ◆ Navigate to About page,Featured listing page

## → About Page

- ◆ Seller of the Month
- ◆ Know about Housepedia
- ◆ View Our Team
- ◆ Navigate to Home page,Featured listing page

## → Listing Page

- ◆ View Property listings
- ◆ Navigate to single listing

## → Single listing Page

- ◆ Detailed view of the Property with Images
- ◆ Make an Inquiry
- ◆ Google Map location

## → Search Page

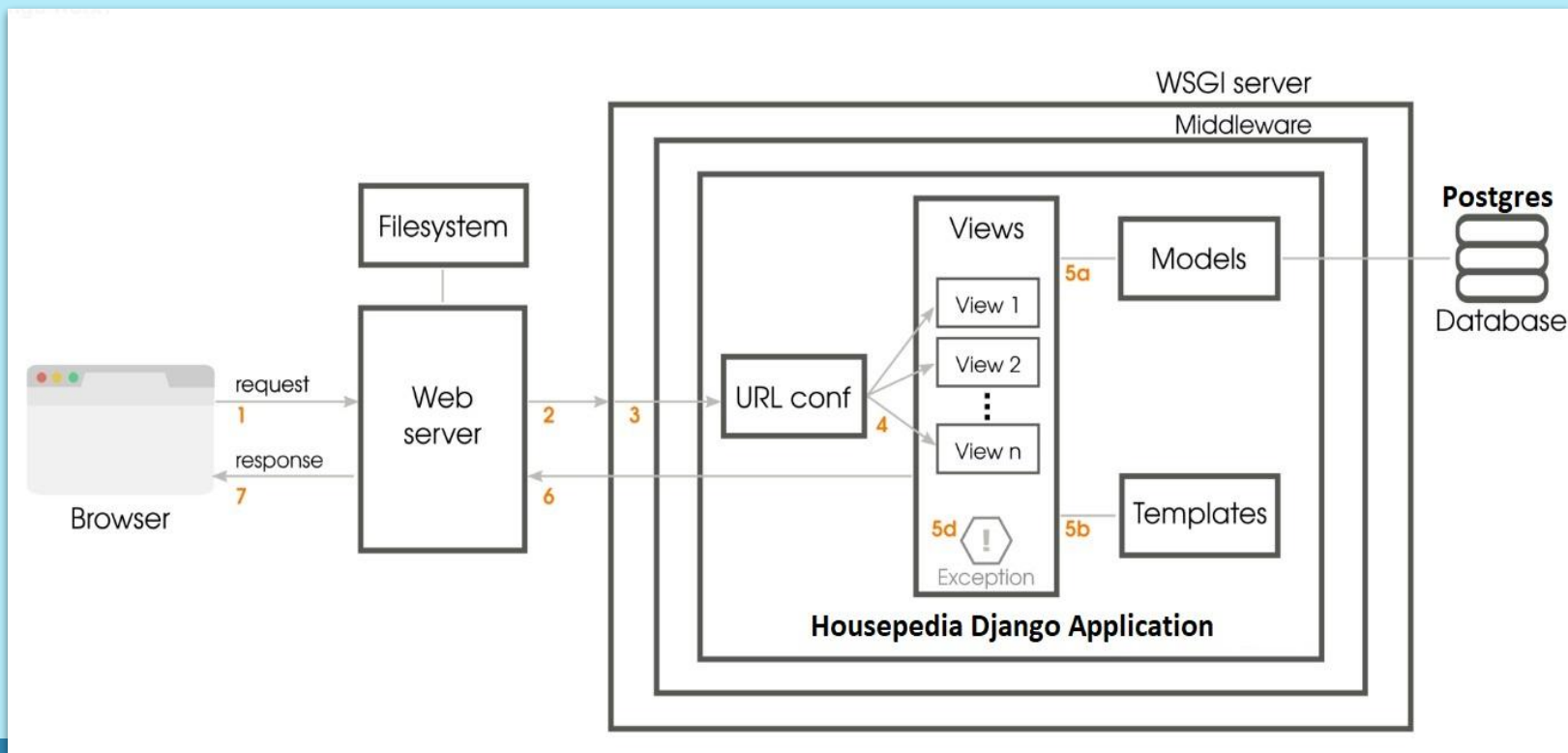
- ◆ View Searched property
- ◆ Property search

## → Login Page

## → Register Page

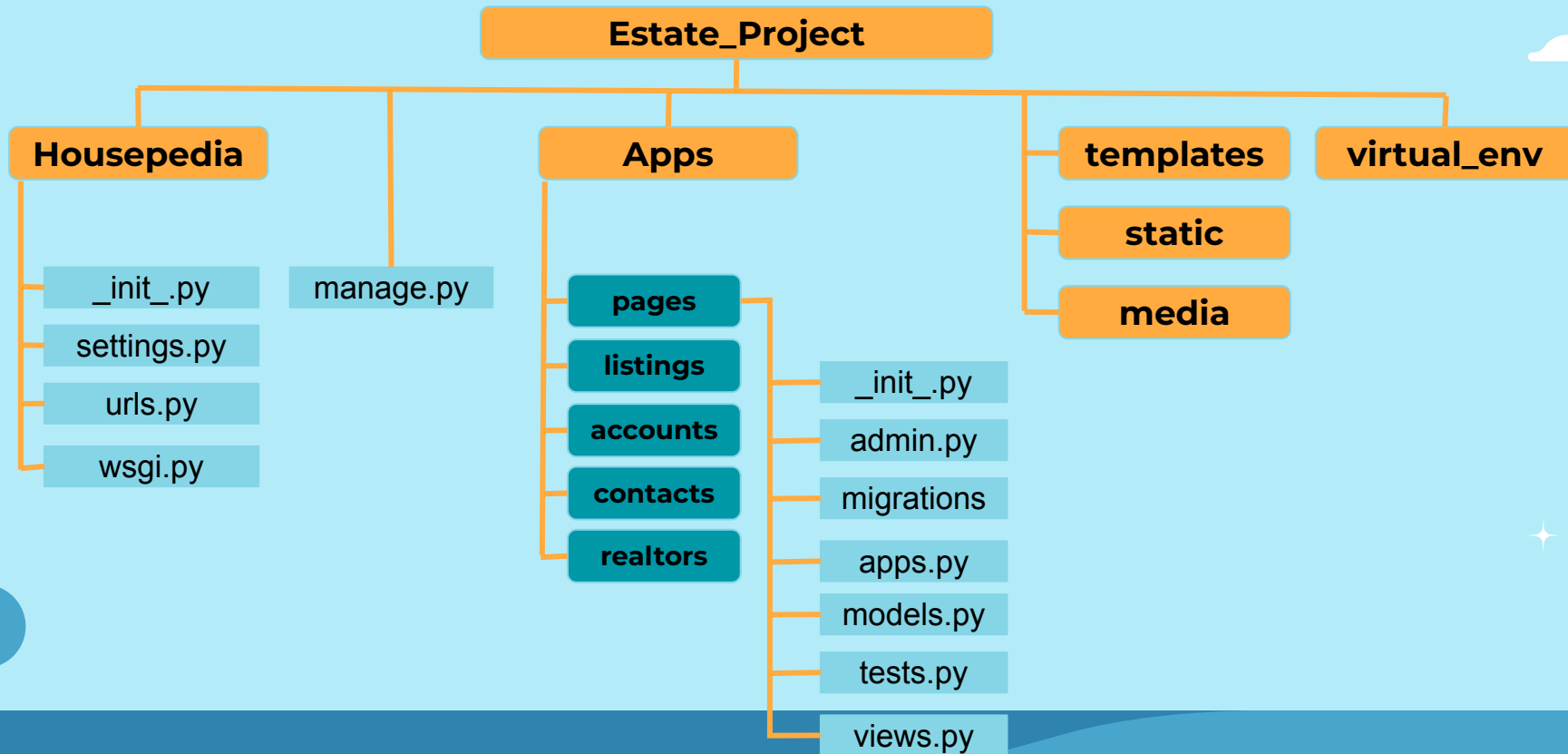
## → Dashboard (Inquiry)

# Housepedia Web Django Architecture

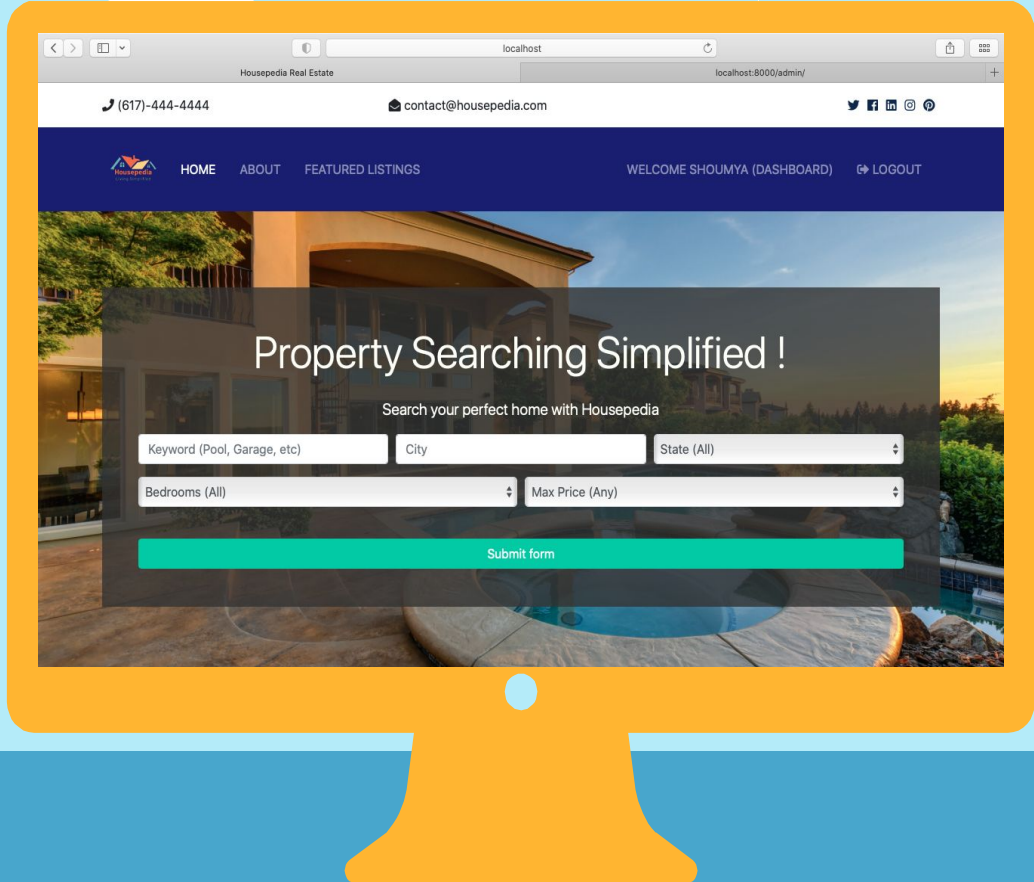
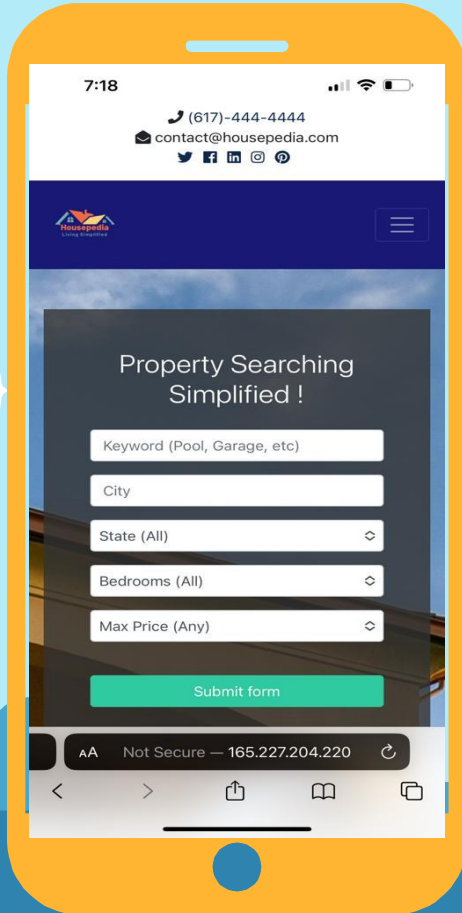









# Housepedia Django Folder Structure




# Desktop & Mobile Compatible





# Property Search



(617)-444-4444    contact@housepedia.com        

 [HOME](#) [ABOUT](#) [FEATURED LISTINGS](#) [REGISTER](#) [LOGIN](#)

## Property Searching Simplified !

Search your perfect home with Housepedia

Keyword (Pool, Garage, etc)   State (All) 

Bedrooms (All)  Max Price (Any) 

# Search Page & Code Snippet

HOME ABOUT FEATURED LISTINGS REGISTER LOGIN


Keyword (Pool, Garage, etc)  State (All)

Bedrooms (Any) Max Price (All)

Submit form

Home / Browse Listings / Search Results

**\$5,000,000**



**37139 Denning terrace**

Fremont CA, 94536

Sqft: 2000 Garage: 2

Bedrooms: 3 Bathrooms: 2.0

Shoumya Singh

2 weeks

More info


```
def search(request):
    queryset_list = Listing.objects.order_by('-list_date')

    # Keywords
    if 'keywords' in request.GET:
        keywords = request.GET['keywords']
        if keywords:
            queryset_list = queryset_list.filter(description__icontains=keywords)

    # City
    if 'city' in request.GET:
        city = request.GET['city']
        if city:
            queryset_list = queryset_list.filter(city__iexact=city)

    # State
    if 'state' in request.GET:
        state = request.GET['state']
        if state:
            queryset_list = queryset_list.filter(state__iexact=state)
```

# Register, Login & Dashboard Pages

 Register

First Name

Rita

Last Name

Smith

Username

rita

Email

ritasmith@gmail.co


Password


.....

Confirm Password

.....

Register

 Login

Success You are now registered and can log in 

Username

Password

Login

## ➔ Login

Username

rita

Password

\*\*\*\*\*

Login

☎ (617)-444-4444

✉ contact@housepedia.com



HOME

ABOUT

FEATURED LISTINGS

WELCOME RITA (DASHBOARD)

🔒 LOGOUT

# User Dashboard

Manage your Housepedia Real Estate account

🏠 Home / Dashboard

Success You are now logged in

Welcome Rita

You have not made any inquiries



Start typing to filter...

## AUTHENTICATION AND AUTHORIZATION

**Groups** [+ Add](#)

**Users** [+ Add](#)

## CONTACTS

**Contacts** [+ Add](#)

## LISTINGS

**Listings** [+ Add](#)

## REALTORS

**Realtors** [+ Add](#)

## Select user to change

[ADD USER](#) [+](#)



Search

Action: [\[dropdown\]](#) [Go](#) 0 of 3 selected

<input type="checkbox"/>	USERNAME	EMAIL ADDRESS	FIRST NAME	LAST NAME	STAFF STATUS
<input type="checkbox"/>	<b>Baker</b>	baker@gmail.co	Max	Baker	<a href="#">✖</a>
<input type="checkbox"/>	<b>rita</b>	ritasmith@gmail.co	Rita	Smith	<a href="#">✖</a>
<input type="checkbox"/>	<b>shoumya</b>	shoumya@gmail.com			<a href="#">✔</a>

3 users

## FILTER

↓ By staff status

[All](#)

[Yes](#)

[No](#)

↓ By superuser status

[All](#)

[Yes](#)

[No](#)

↓ By active

[All](#)

[Yes](#)

[No](#)

# Code Snippet User Makes an Inquiry

```
def contact(request):
    if request.method == 'POST':
        listing_id = request.POST['listing_id']
        listing = request.POST['listing']
        name = request.POST['name']
        email = request.POST['email']
        phone = request.POST['phone']
        message = request.POST['message']
        user_id = request.POST['user_id']
        realtor_email = request.POST['realtor_email']

        # Check if user has made inquiry already
        if request.user.is_authenticated:
            user_id = request.user.id
            has_contacted = Contact.objects.all().filter(listing_id=listing_id, user_id=user_id)
            if has_contacted:
                messages.error(request, 'You have already made an inquiry for this listing')
                return redirect('/listings/'+listing_id)

        contact = Contact(listing=listing, listing_id=listing_id, name=name,
                           email=email, phone=phone, message=message, user_id=user_id )

        contact.save()
```

- When the request is sent, it checks if the user has already made an inquiry on that property.

- if Yes, then it sends the message that you have already made an inquiry.

- if No, then it saves the contact and sends an email to the realtor that there is an inquiry made.






# Code Snippet Continue

- The message for the realtor in the email “ There has been an inquiry “ address” . Sign into admin panel for more info.
- Message received by the customer “ Your request has been submitted, a realtor will get back to you soon”.

```
# Send email
send_mail(
    'Property Listing Inquiry',
    'There has been an inquiry for ' + listing + '. Sign into the admin panel for more info',
    'dkranchii@outlook.com',
    [realtor_email, 'shoumya25@gmail.com'],
    fail_silently=False
)

messages.success(request, 'Your request has been submitted, a realtor will get back to you soon')
return redirect('/listings/'+listing_id)
```

# User Makes an Inquiry



HOME ABOUT FEATURED LISTINGS

WELCOME RITA (DASHBOARD) [LOGOUT](#)

**Property Realtor**  
Shoumya Singh

[Make An Inquiry](#)

### Make An Inquiry

×

Property:

Name:

Email:

Phone:

Message:

Send

Start typing to filter...

AUTHENTICATION AND AUTHORIZATION

Groups + Add

Users + Add

CONTACTS

Contacts + Add

LISTINGS

Listings + Add

REALTORS

Realtors + Add

## Change contact

HISTORY

### Rita Smith

Listing: 33 Essex Circle

Listing id: 6


Name: Rita Smith

Email: ritasmith@gmail.co

Phone: 623457888

Message: I am interested

Contact date: Date: 2022-10-28 Today | 

Time: 06:24:23 Now | 

Note: You are 7 hours behind server time.

# Property listing Inquiry Email


Property Listing Inquiry  Inbox x



**gayatri.kolekar@gmail.com**

to me ▼

There has been an inquiry for 3329 Mauricia Ave. Sign into the admin panel for more info

Property Listing Inquiry 



**gayatri.kolekar@gmail.com**

9:02 AM (4 hours ago)



to me ▼

There  
more i

from: **gayatri.kolekar@gmail.com**

to: gayatri.kolekar@gmail.com

date: Nov 11, 2022, 9:02 AM

subject: Property Listing Inquiry

mailed-by: gmail.com

Sign into the admin panel for



[HOME](#)[ABOUT](#)[FEATURED LISTINGS](#)[WELCOME RITA \(DASHBOARD\)](#)[LOGOUT](#)

# User Dashboard

Manage your Housepedia Real Estate account

[Home](#) / [Dashboard](#)

## Welcome Rita

Here are the property listings that you have inquired about

#	Property	
6	12 United Road	<a href="#">View Listing</a>
5	18 Jefferson Lane	<a href="#">View Listing</a>
4	28 Gifford Street	<a href="#">View Listing</a>
3	33 Essex Circle	<a href="#">View Listing</a>

# Google Map On Admin Side

Admin Area

WELCOME, SHOURMYA VIEW SITE / CHANGE PASSWORD / LOG OUT

Home » Listings » Listings » 37139 Denning terrace

Start typing to filter...

AUTHENTICATION AND AUTHORIZATION

Groups + Add

Users + Add

CONTACTS

Contacts + Add

LISTINGS

Listings + Add

REALTORS

Realtors + Add

Change listing

37139 Denning terrace

HISTORY

Realtor: Shourmya Singh

Title: 37139 Denning terrace

City: Fremont

State: CA

Zipcode: 94536

Address: 37138 Denning Ter

37138 Denning Terrace Fremont, CA, USA

37138 Denning Court Castro Valley, CA, USA


37138 Denning Way San Rafael, CA, USA

37138 Jim Denning Road Sun Valley, NV, USA

37138 Denning Street Las Vegas, NV, USA

Geolocation: 37.5662428,-122.0035605

Description: Bedrooms are generously sized and bathrooms have been completely updated with new vanities, quartz counters, new walk-in shower (and new shower tub combo), updated hardware and all new fixtures. A private backyard awaits with covered patio and planting beds. New AC. Excellent schools and a multitude of dining and shopping options. Convenient access to surrounding freeways, BART & light rail makes for an ideal commute! wonderful house.

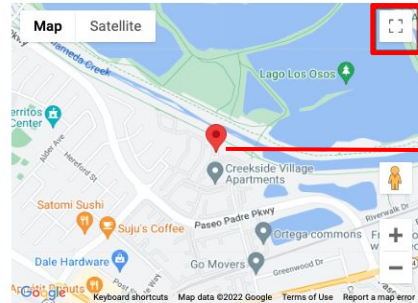




# Google Map On Single Listing Page



## Google Map Location



The Map can be Zoomed to full screen from here.

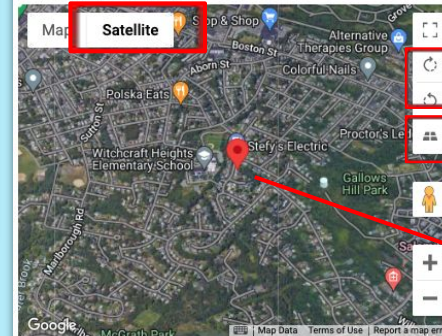
Location of the listed Property

## Description

Bedrooms are generously sized and bathrooms have been completely updated with new vanities, quartz counters, new walk-in shower (and new shower tub combo), updated hardware and all new fixtures. A private backyard awaits with covered patio and planting beds. New AC. Excellent schools and a multitude of dining and shopping options. Convenient access to surrounding freeways, BART & light rail makes for an ideal commute! wonderful house.



## Google Map Location



Map Rotate

Map tilt

Location of the listed Property

## Description

Presenting 23 Puritan Road! This charming home is just brimming with potential. Located in a peaceful, residential neighborhood very close to Witchcraft Heights Elementary and offering ~2000 square feet, 3 bedrooms and 2 full bathrooms. Featuring a lovely updated kitchen, spacious living/dining room combination with wood burning fireplace and hardwood floors. Wonderful sun porch leads to spacious fenced-in back yard. The finished lower level is just waiting for your ideas. One car garage parking. Brand new water heater. So much to offer! Don't miss out on this fantastic opportunity!!



Start typing to filter...

## AUTHENTICATION AND AUTHORIZATION

**Groups** [+ Add](#)

**Users** [+ Add](#)

## CONTACTS

**Contacts** [+ Add](#)

## LISTINGS

**Listings** [+ Add](#)

## REALTORS

**Realtors** [+ Add](#)

## Select listing to change



Search

Action:



Go

0 of 6 selected

<input type="checkbox"/>	ID	TITLE	IS PUBLISHED	PRICE	LIST DATE	REALTOR
<input type="checkbox"/>	6	33 Essex Circle	<input checked="" type="checkbox"/>	780000	Oct. 14, 2022, 6:03 a.m.	Shoumya Singh
<input type="checkbox"/>	5	12 United Road	<input checked="" type="checkbox"/>	230000	Oct. 14, 2022, 6:01 a.m.	Gayatri Kolekar
<input type="checkbox"/>	4	28 Gifford Street	<input checked="" type="checkbox"/>	380890	Oct. 14, 2022, 5:59 a.m.	Shoumya Singh
<input type="checkbox"/>	3	187 Woodrow Street	<input checked="" type="checkbox"/>	580000	Oct. 14, 2022, 5:55 a.m.	Gayatri Kolekar
<input type="checkbox"/>	2	18 Jefferson Lane	<input checked="" type="checkbox"/>	550000	Oct. 14, 2022, 5:52 a.m.	Gayatri Kolekar
<input type="checkbox"/>	1	45 Drivewood Circle	<input checked="" type="checkbox"/>	490000	Oct. 14, 2022, 5:43 a.m.	Shoumya Singh

6 listings

Save

ADD LISTING [+](#)

## FILTER

↓ By realtor

All

Shoumya Singh

Gayatri Kolekar



# pgAdmin Database

pgAdmin File Object Tools Help

Browser Servers dbserver Databases (3) estatedb Casts Catalogs Event Triggers Extensions Foreign Data Wrappers Languages Publications Schemas (1) public Aggregates Collations Domains FTS Configurations FTS Dictionaries FTS Parsers FTS Templates Foreign Tables Functions Materialized Views Operators Procedures Sequences Tables (13) auth\_group auth\_group\_permissions

Properties SQL Statistics Dependencies Dependents public.listings\_listing/estatedb/postgres@dbserver

public.listings\_listing/estatedb/postgres@dbserver

Query Query History

```
1 SELECT * FROM public.listings_listing
2 ORDER BY id ASC
```

Data Output Messages Notifications

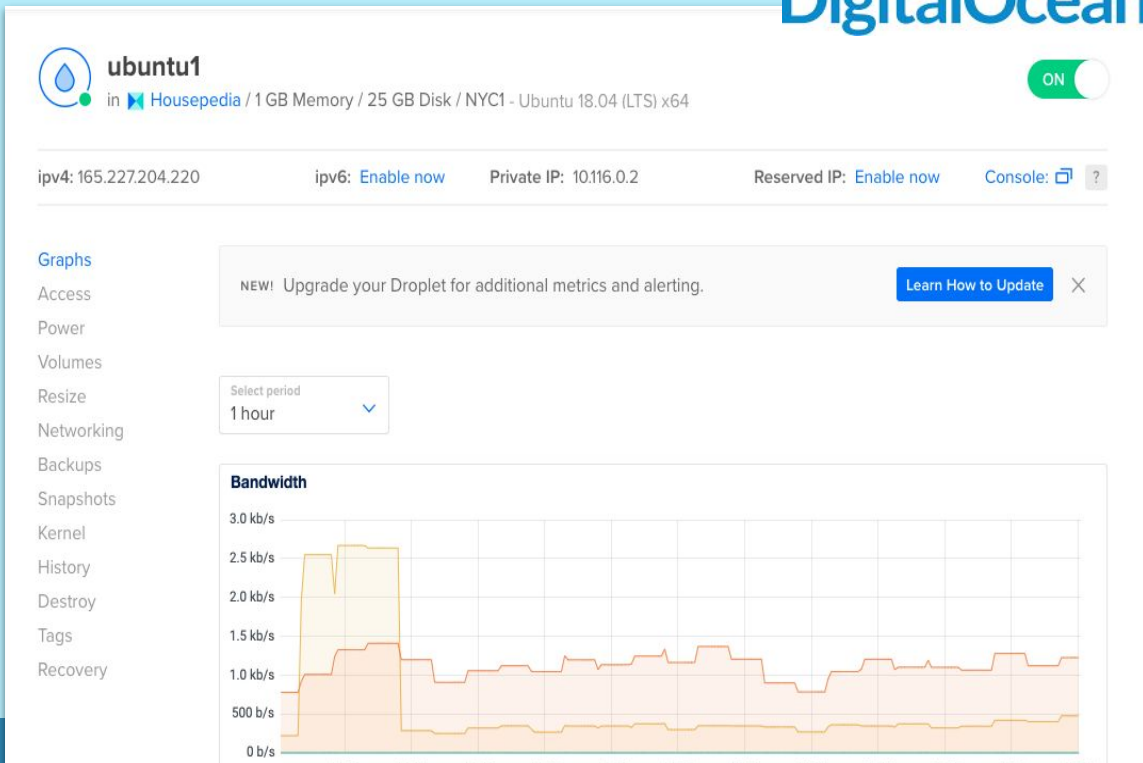
	id [PK] bigint	title character varying (200)	address character varying (200)	city character varying (100)	state character varying (100)	zipcode character varying (20)
1	1	45 Drivewood Circle	45 Drivewood Circle	Norwood	MA	02062
2	2	18 Jefferson Lane	18 Jefferson Lane	Woburn	MA	01801
3	3	187 Woodrow Street	187 Woodrow Street	Salem	MA	01915
4	4	28 Gifford Street	28 Gifford Street	Bedford	NH	03103
5	5	12 United Road	12 United Road	South Hampton	NH	03827
6	6	33 Essex Circle	33 Essex Circle	Lexington	MA	01731

Total rows: 6 of 6 Query complete 00:00:00.754 Ln 1, Col 1

# Deployment - Digital Ocean



- DigitalOcean is a cloud hosting provider that offers cloud computing services and Infrastructure as a Service (IaaS)
- Installed required tools and software based on the requirement like Pip, Python, Apt, etc.
- Uploaded the latest code to the GitHub repo for universal access.



## SSH keys

New SSH key

This is a list of SSH keys associated with your account. Remove any keys that you do not recognize.

### Authentication Keys



ssh key

SHA256: [redacted]

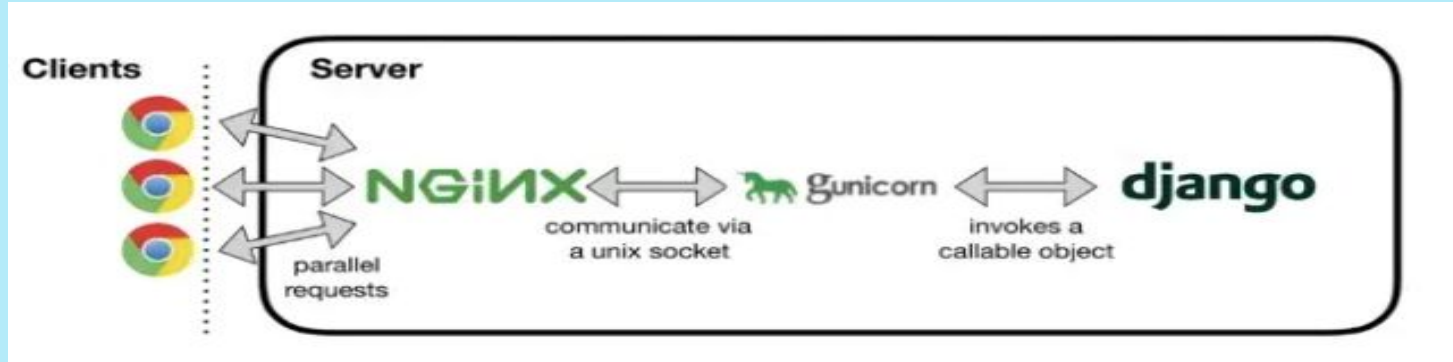
Added on Oct 25, 2022

Last used within the last week — Read/write

Delete

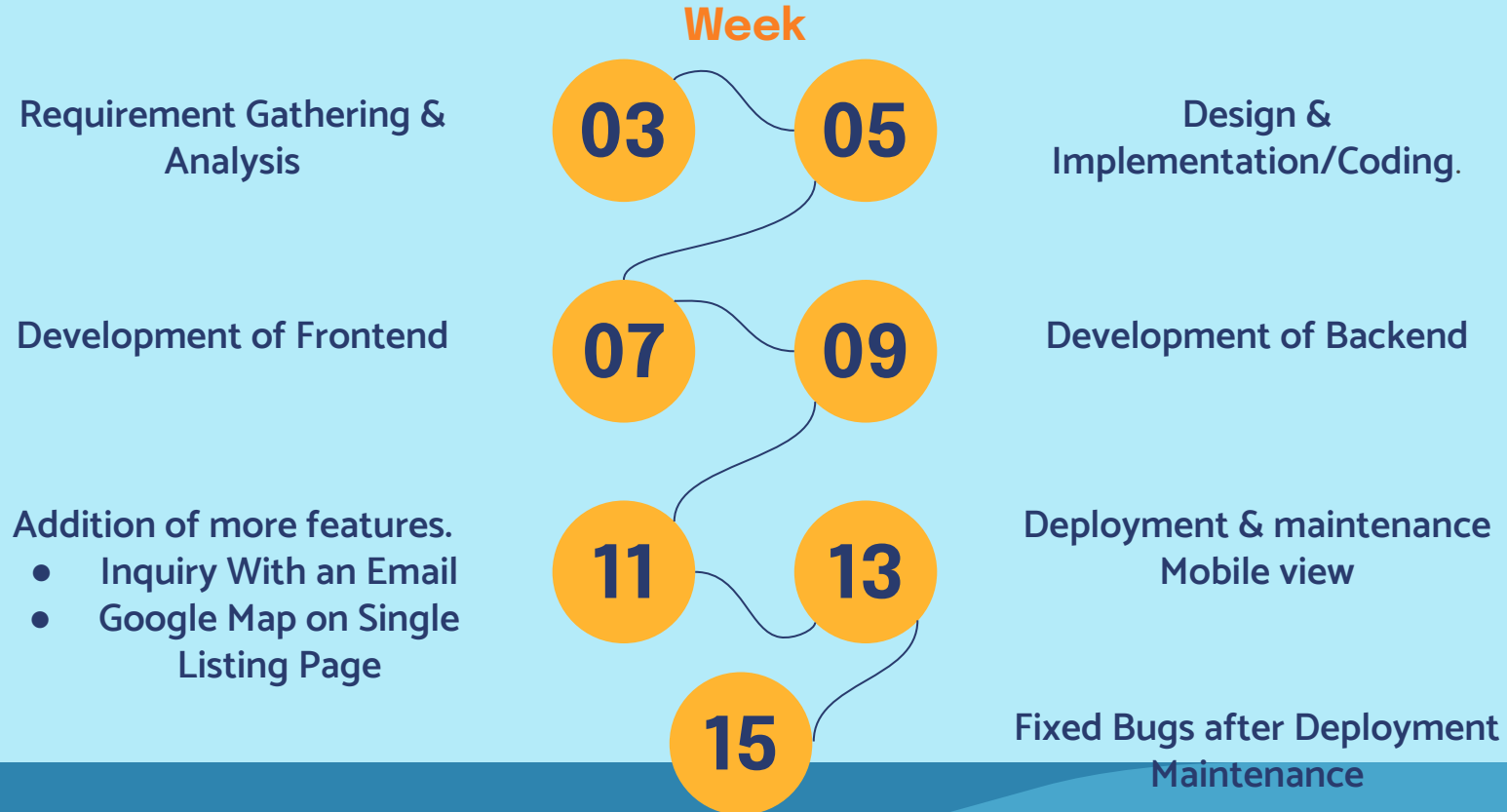
Check out our guide to [generating SSH keys](#) or [troubleshoot common SSH problems](#).

# Deployment - Gunicorn & Nginx



- **Gunicorn** is a server that runs applications. It converts **HTTP requests into Python-friendly syntax**. The Web Server Gateway Interface (WSGI) is a standard interface between web server software and web applications that Gunicorn implements. **Gunicorn 'Green Unicorn' is a Python WSGI HTTP Server for UNIX.**
- **Nginx** is a type of web server. It is the public handler, also known as the reverse proxy, for incoming requests and can handle thousands of concurrent connections. It is also a **load balancer for HTTP, TCP, and UDP servers.**

# Timeline of Development



# Demo





# THANKS!

**Any questions?**

You can find us at:

- ▶ [gayatri.kolekar@gmail.com](mailto:gayatri.kolekar@gmail.com)
- ▶ [shoumya25@gmail.com](mailto:shoumya25@gmail.com)

