

HouseHunt: Finding a Perfect Rental Home

HouseHunt: Finding a Perfect Rental Home

This project is a web application for finding rental houses. It features:

- User login
- Search by city/location, price range, and number of bedrooms
- View available rent houses with images, floor plans, 360° tours, and Google Maps routes
- Save searches
- Download search results as CSV
- View price trends (sample chart)
- See real estate agents/brokers

Sample Output:

After logging in, you can search for rent houses. Results are shown as cards with images, address, price, bedrooms, and links for 360° tour, floor plan, and Google Maps. You can save your search or download results as a CSV file.

app.py

```
from flask import Flask, render_template, request, redirect, url_for, session, send_file
import io
import csv

app = Flask(__name__)
app.secret_key = 'your_secret_key' # Replace with a secure key in production

# Mock user
USER = {'username': 'user', 'password': 'pass'}

# Mock rental house data
HOUSES = [
    {'city': 'New York', 'price': 1200, 'address': '123 Main St, New York', 'bedrooms': 2,
     'image_url':
     'https://images.unsplash.com/photo-1506744038136-46273834b3fb?auto=format&fit=crop&w=400&q=80',
     'map_query': '123 Main St, New York', 'floor_plan_url':
     'https://www.houseplans.com/blog/wp-content/uploads/2017/09/plan-430-156-floor-plan.jpg',
     'tour_360_url': 'https://kuula.co/share/7Yd7B?fs=1&vr=1&sd=1&thumbs=1&chromeless=1&logo=1'},
    {'city': 'Los Angeles', 'price': 1500, 'address': '456 Sunset Blvd, Los Angeles', 'bedrooms':
     3,
     'image_url':
     'https://images.unsplash.com/photo-1460518451285-97b6aa326961?auto=format&fit=crop&w=400&q=80',
```

```

'map_query': '456 Sunset Blvd, Los Angeles', 'floor_plan_url':
'https://www.houseplans.com/blog/wp-content/uploads/2017/09/plan-430-156-floor-plan.jpg',
'tour_360_url': 'https://kuula.co/share/7Yd7B?fs=1&vr=1&sd=1&thumbs=1&chromeless=1&logo=1',
    {'city': 'Chicago', 'price': 900, 'address': '789 Lake Shore Dr, Chicago', 'bedrooms': 1,
'image_url':
'https://images.unsplash.com/photo-1430285561322-7808604715df?auto=format&fit=crop&w=400&q=80',
'map_query': '789 Lake Shore Dr, Chicago', 'floor_plan_url':
'https://www.houseplans.com/blog/wp-content/uploads/2017/09/plan-430-156-floor-plan.jpg',
'tour_360_url': 'https://kuula.co/share/7Yd7B?fs=1&vr=1&sd=1&thumbs=1&chromeless=1&logo=1',
    {'city': 'New York', 'price': 2000, 'address': '321 Broadway, New York', 'bedrooms': 4,
'image_url':
'https://images.unsplash.com/photo-1512918728675-ed5a9ecdebfd?auto=format&fit=crop&w=400&q=80',
'map_query': '321 Broadway, New York', 'floor_plan_url':
'https://www.houseplans.com/blog/wp-content/uploads/2017/09/plan-430-156-floor-plan.jpg',
'tour_360_url': 'https://kuula.co/share/7Yd7B?fs=1&vr=1&sd=1&thumbs=1&chromeless=1&logo=1',
    {'city': 'Los Angeles', 'price': 1100, 'address': '654 Hollywood Rd, Los Angeles', 'bedrooms':
2,
'image_url':
'https://images.unsplash.com/photo-1465101046530-73398c7f28ca?auto=format&fit=crop&w=400&q=80',
'map_query': '654 Hollywood Rd, Los Angeles', 'floor_plan_url':
'https://www.houseplans.com/blog/wp-content/uploads/2017/09/plan-430-156-floor-plan.jpg',
'tour_360_url': 'https://kuula.co/share/7Yd7B?fs=1&vr=1&sd=1&thumbs=1&chromeless=1&logo=1'},
]

```

```

AGENTS = [
    {'name': 'Alice Johnson', 'phone': '555-1234', 'email': 'alice@realestate.com'},
    {'name': 'Bob Smith', 'phone': '555-5678', 'email': 'bob@realestate.com'},
    {'name': 'Carol Lee', 'phone': '555-8765', 'email': 'carol@realestate.com'},
]

```

```
@app.route('/', methods=['GET', 'POST'])
```

```
def login():
```

```
    if request.method == 'POST':
```

```
        username = request.form['username']
```

```
        password = request.form['password']
```

```
        if username == USER['username'] and password == USER['password']:
```

```
            session['user'] = username
```

```
            return redirect(url_for('home'))
```

```
        else:
```

```
            return render_template('login.html', error='Invalid credentials')
```

```
    return render_template('login.html')
```

```
@app.route('/home', methods=['GET', 'POST'])
```

```
def home():
```

```
    if 'user' not in session:
```

```
        return redirect(url_for('login'))
```

```
    cities = sorted(set(h['city'] for h in HOUSES))
```

```
    bedrooms_options = sorted(set(h['bedrooms'] for h in HOUSES))
```

```
    results = HOUSES
```

```
    search_params = {}
```

```
    if request.method == 'POST':
```

```
        city = request.form['city']
```

```
        min_price = int(request.form['min_price'])
```

```
        max_price = int(request.form['max_price'])
```

```
        bedrooms = int(request.form['bedrooms'])
```

```
        results = [h for h in HOUSES if h['city'] == city and min_price <= h['price'] <= max_price
and h['bedrooms'] == bedrooms]
```

```
        search_params = {'city': city, 'min_price': min_price, 'max_price': max_price, 'bedrooms':
bedrooms}
```

```
        return render_template('home.html', cities=cities, bedrooms_options=bedrooms_options,
results=results, search_params=search_params, agents=AGENTS)
```

```
@app.route('/logout')
```

```
def logout():
```

```
    session.pop('user', None)
```

```
    return redirect(url_for('login'))
```

```
@app.route('/save_search', methods=['POST'])
```

```

def save_search():
    if 'user' not in session:
        return redirect(url_for('login'))
    search = request.form.to_dict()
    if 'saved_searches' not in session:
        session['saved_searches'] = []
    session['saved_searches'].append(search)
    session.modified = True
    return redirect(url_for('saved_searches'))

@app.route('/saved_searches')
def saved_searches():
    if 'user' not in session:
        return redirect(url_for('login'))
    searches = session.get('saved_searches', [])
    return render_template('saved_searches.html', searches=searches)

@app.route('/download_results', methods=['POST'])
def download_results():
    if 'user' not in session:
        return redirect(url_for('login'))
    city = request.form['city']
    min_price = int(request.form['min_price'])
    max_price = int(request.form['max_price'])
    bedrooms = int(request.form['bedrooms'])
    results = [h for h in HOUSES if h['city'] == city and min_price <= h['price'] <= max_price and
h['bedrooms'] == bedrooms]
    output = io.StringIO()
    writer = csv.writer(output)
    writer.writerow(['Address', 'City', 'Price', 'Bedrooms'])
    for h in results:
        writer.writerow([h['address'], h['city'], h['price'], h['bedrooms']])
    output.seek(0)
    return send_file(io.BytesIO(output.getvalue().encode()), mimetype='text/csv',
as_attachment=True, download_name='rent_houses.csv')

if __name__ == '__main__':
    app.run(debug=True)

```

templates/home.html

```

<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <title>HouseHunt: Find Your Perfect Rental Home</title>
    <link rel="stylesheet" href="/static/style.css">
</head>
<body>
    <div class="container">
        <h2>HouseHunt: Find Your Perfect Rental Home</h2>
        <form method="post">
            <label>City/Location:</label><br>
            <select name="city" required>
                {% for city in cities %}
                    <option value="{{ city }}" {% if search_params.city == city %}selected{% endif
%}>{{ city }}</option>
                {% endfor %}
            </select><br>
            <label>Price Range:</label><br>
                <input type="number" name="min_price" placeholder="Min" required value="{{
search_params.min_price if search_params.min_price is defined else '' }}"> -
                <input type="number" name="max_price" placeholder="Max" required value="{{
search_params.max_price if search_params.max_price is defined else '' }}"><br>
            <label>Bedrooms:</label><br>
            <select name="bedrooms" required>
                {% for b in bedrooms_options %}
                    <option value="{{ b }}" {% if search_params.bedrooms == b %}selected{% endif %}>{{

```

```

b }}</option>
        {% endfor %}
    </select><br>
    <button type="submit">Search</button>
</form>
{% if search_params.city is defined %}
<form method="post" action="/save_search">
    <input type="hidden" name="city" value="{{ search_params.city }}">
    <input type="hidden" name="min_price" value="{{ search_params.min_price }}">
    <input type="hidden" name="max_price" value="{{ search_params.max_price }}">
    <input type="hidden" name="bedrooms" value="{{ search_params.bedrooms }}">
    <button type="submit">Save Search</button>
</form>
<form method="post" action="/download_results">
    <input type="hidden" name="city" value="{{ search_params.city }}">
    <input type="hidden" name="min_price" value="{{ search_params.min_price }}">
    <input type="hidden" name="max_price" value="{{ search_params.max_price }}">
    <input type="hidden" name="bedrooms" value="{{ search_params.bedrooms }}">
    <button type="submit">Download Results</button>
</form>
<a href="/saved_searches">View Saved Searches</a>
{% endif %}
<a href="/logout">Logout</a>
<hr>
<h3>Available Rent Houses:</h3>
<div class="house-list">
    {% for house in results %}
        <div class="house-card">
            
            <h4>{{ house.address }}</h4>
            <p><strong>City:</strong> {{ house.city }}</p>
            <p><strong>Price:</strong> ${{ house.price }}</p>
            <p><strong>Bedrooms:</strong> {{ house.bedrooms }}</p>
            <a href="https://www.google.com/maps/dir/?api=1&destination={{ house.map_query |
urlencode }}" target="_blank">View Route on Google Maps</a><br>
            <a href="{{ house.tour_360_url }}" target="_blank">360° View Tour</a><br>
            <a href="{{ house.floor_plan_url }}" target="_blank">View Floor Plan</a><br>
            <button onclick="showPriceTrends('{{ house.address }}')">View Price
Trends</button>
        </div>
    {% endfor %}
</div>

<div id="priceTrendsModal"
style="display:none;position:fixed;top:0;left:0;width:100vw;height:100vh;background:rgba(0,0,0,0.5
);align-items:center;justify-content:center;z-index:1000;">
    <div
style="background:#fff;padding:20px;border-radius:8px;max-width:500px;width:90%;position:relative;
">
        <span style="position:absolute;top:10px;right:20px;cursor:pointer;font-size:24px;"
onclick="closePriceTrends()">&times;</span>
        <h3 id="trendTitle">Price Trends</h3>
        <canvas id="trendChart" width="400" height="200"></canvas>
    </div>
</div>
<hr>
<h3>Real Estate Agents & Brokers</h3>
<div>
    {% for agent in agents %}
        <div style="margin-bottom:10px;padding:10px;background:#f9f9f9;border-radius:6px;">
            <strong>{{ agent.name }}</strong><br>
            Phone: {{ agent.phone }}<br>
            Email: {{ agent.email }}
        </div>
    {% endfor %}
</div>
<script src="https://cdn.jsdelivr.net/npm/chart.js"></script>

```

```

<script>
function showPriceTrends(address) {
    document.getElementById('priceTrendsModal').style.display = 'flex';
    document.getElementById('trendTitle').innerText = 'Price Trends for ' + address;
    var ctx = document.getElementById('trendChart').getContext('2d');
    if(window.trendChartObj) window.trendChartObj.destroy();
    window.trendChartObj = new Chart(ctx, {
        type: 'line',
        data: {
            labels: ['2021', '2022', '2023', '2024', '2025'],
            datasets: [{
                label: 'Price',
                data: [1000, 1200, 1300, 1400, 1500],
                borderColor: '#007bff',
                fill: false
            }]
        },
        options: {responsive: true}
    });
}
function closePriceTrends() {
    document.getElementById('priceTrendsModal').style.display = 'none';
}
</script>
</div>
</body>
</html>

```

templates/login.html

```

<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <title>Login - HouseHunt</title>
    <link rel="stylesheet" href="/static/style.css">
</head>
<body>
    <div class="container">
        <h1 style="text-align:center; margin-bottom: 20px;">HouseHunt: Finding a Perfect Rental
Home</h1>
        <h2>Login</h2>
        {% if error %}<p class="error">{{ error }}</p>{% endif %}
        <form method="post">
            <label>Username:</label><br>
            <input type="text" name="username" required><br>
            <label>Password:</label><br>
            <input type="password" name="password" required><br>
            <button type="submit">Login</button>
        </form>
    </div>
</body>
</html>

```

static/style.css

```

body { font-family: Arial, sans-serif; background: linear-gradient(120deg, #89f7fe 0%, #66a6ff 100%); min-height: 100vh; }
.container { background: rgba(255,255,255,0.95); padding: 30px; margin: 50px auto; width: 350px; border-radius: 8px; box-shadow: 0 2px 8px rgba(0,0,0,0.1); }
h2 { text-align: center; }
form { margin-bottom: 20px; }
input, select { width: 100%; padding: 8px; margin: 8px 0; border-radius: 4px; border: 1px solid #ccc; }
button { width: 100%; padding: 10px; background: #007bff; color: #fff; border: none; border-radius: 4px; cursor: pointer; }
button:hover { background: #0056b3; }
.error { color: red; text-align: center; }

```

```
ul { list-style: none; padding: 0; }
li { background: #f9f9f9; margin: 5px 0; padding: 10px; border-radius: 4px; }
a { display: block; text-align: right; color: #007bff; text-decoration: none; margin-bottom: 10px;
}
a:hover { text-decoration: underline; }
.house-list { display: flex; flex-direction: column; gap: 16px; margin-top: 20px; }
.house-card { background: #fff; border-radius: 8px; box-shadow: 0 1px 4px rgba(0,0,0,0.08);
padding: 16px; display: flex; flex-direction: column; }
.house-card h4 { margin: 0 0 8px 0; }
.house-card p { margin: 4px 0; }
@media (min-width: 600px) {
    .house-list { flex-direction: row; flex-wrap: wrap; }
    .house-card { width: 300px; }
}
```