

Project Title: Silicon Valley Real Estate Web Application

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1. Project Overview

This project is a simple real estate web application that allows users to view property listings and their details. The project is divided into two main components: the frontend, built with React.js, and the backend, built with Django. The frontend interacts with the backend through API endpoints to display property data dynamically.

2. Technology Stack

Frontend: React.js

Backend: Django

Database: SQLite (default setup for Django)

API Communication: RESTful API using Django REST Framework

3. Features

Property Listings: Users can view a list of properties for sale.

Property Details: Users can click on a property to view detailed information.

Filtering: Users can filter properties based on price.

Responsive Design: The website is responsive and works well on various devices.

4. Project Setup and Installation

To run this project locally, follow these steps:

Clone the repository: `git clone https://github.com/lili3northeastern/realestate-project.git`
`cd realestate-project`

Backend setup: Navigate to the backend directory and set up the virtual environment:
`cd backend` `python3 -m venv venv` `source venv/bin/activate`

Install dependencies and run the Django development server: `pip install -r requirements.txt`

```
python manage.py migrate
```

```
python manage.py runserver
```

Frontend setup:

In a new terminal, navigate to the frontend directory: `cd frontend`

```
npm install
```

```
npm start
```

Access the application:

Visit <http://localhost:3000> in your browser to view the frontend.

The backend API can be accessed at <http://localhost:8000/api/>.

5. AWS EC2 Deployment (Optional Bonus)

Although deploying this application to AWS EC2 was part of the optional bonus, I have chosen not to proceed with this step for the following reasons:

Previous Experience: I have experience using AWS EC2 and Google Cloud from both my university courses and bootcamp programs. I am confident in deploying web applications using these platforms.

AWS Billing Issue: My AWS account requires an update to the billing information, specifically updating the credit card details. Due to security concerns and the risk of information leakage, I opted not to proceed with updating these details at this time.

6. Conclusion

This project demonstrates my ability to build and integrate a full-stack web application using React and Django. The application is fully functional, and the code is organized and documented for easy understanding and further development.

GitHub Repository: <https://github.com/lili3northeastern/realestate-project>

If you have any questions or need further clarification, please feel free to reach out.