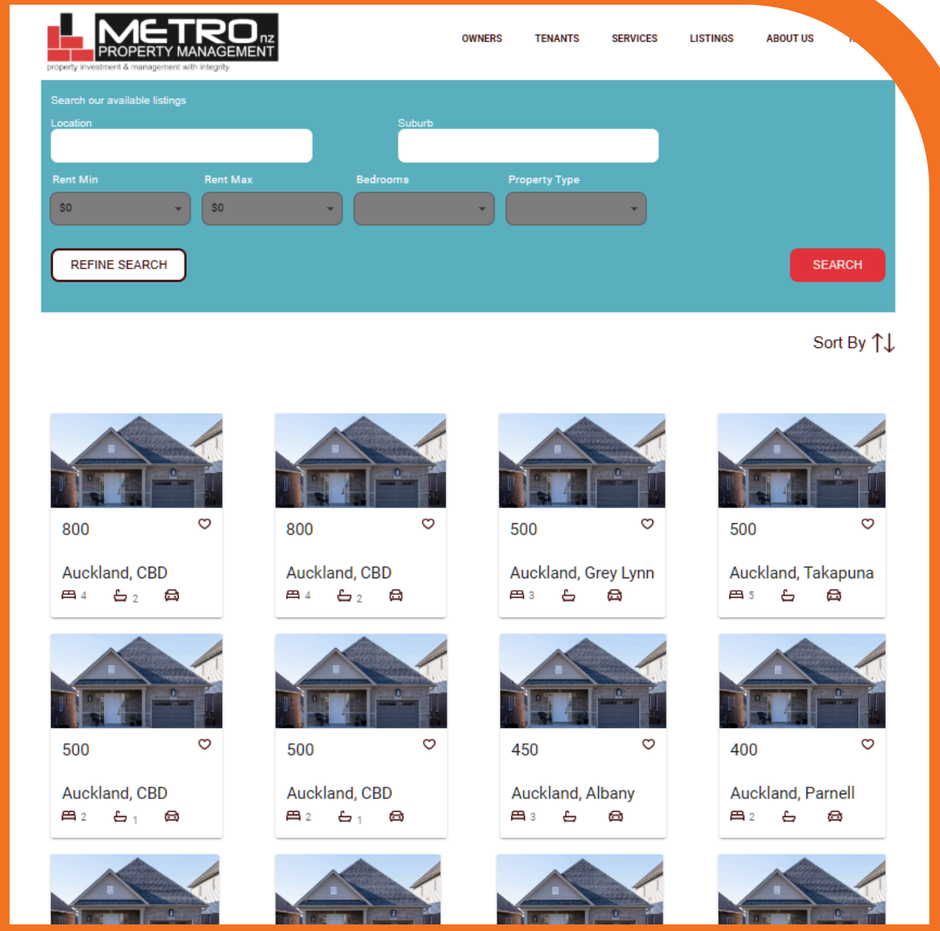
MetroGE

Home Rent Application

Project Overview

This home rent application was developed by a team of full-stack developers as part of our Full-Stack Development studies.



The goal of the project was to build an interactive, user-friendly application based on a prototype designed by UX designers. This project enabled us to implement both frontend and backend functionality while leveraging modern tools, frameworks, and technologies.

The app is designed for users looking to rent homes, allowing them to filter properties based on location, rent range, and various property types. The application integrates a MongoDB database to store property listings, which are filtered according to the user's search criteria.

Key Features

Backend and Filtering:

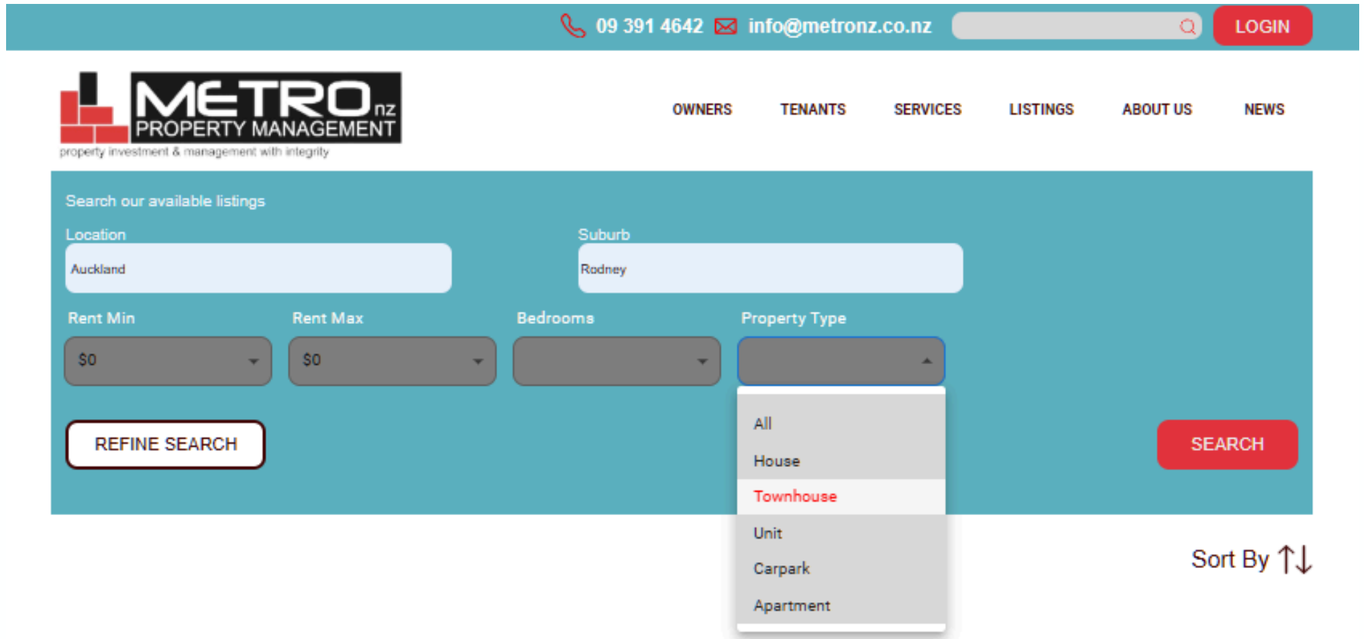
A MongoDB database stores property listings, and users can filter search results based on the criteria entered. The backend processes these queries, returning relevant results quickly and efficiently.

Frontend Design:

The homepage is built according to the exact specifications laid out by UX designers, ensuring a visually appealing and functional user experience.

Tenant Listings Page:

- Location
- Suburb
- Minimum and maximum rent
- Number of bedrooms
- Property type (House, Carpark, Townhouse, Unit, Apartment)



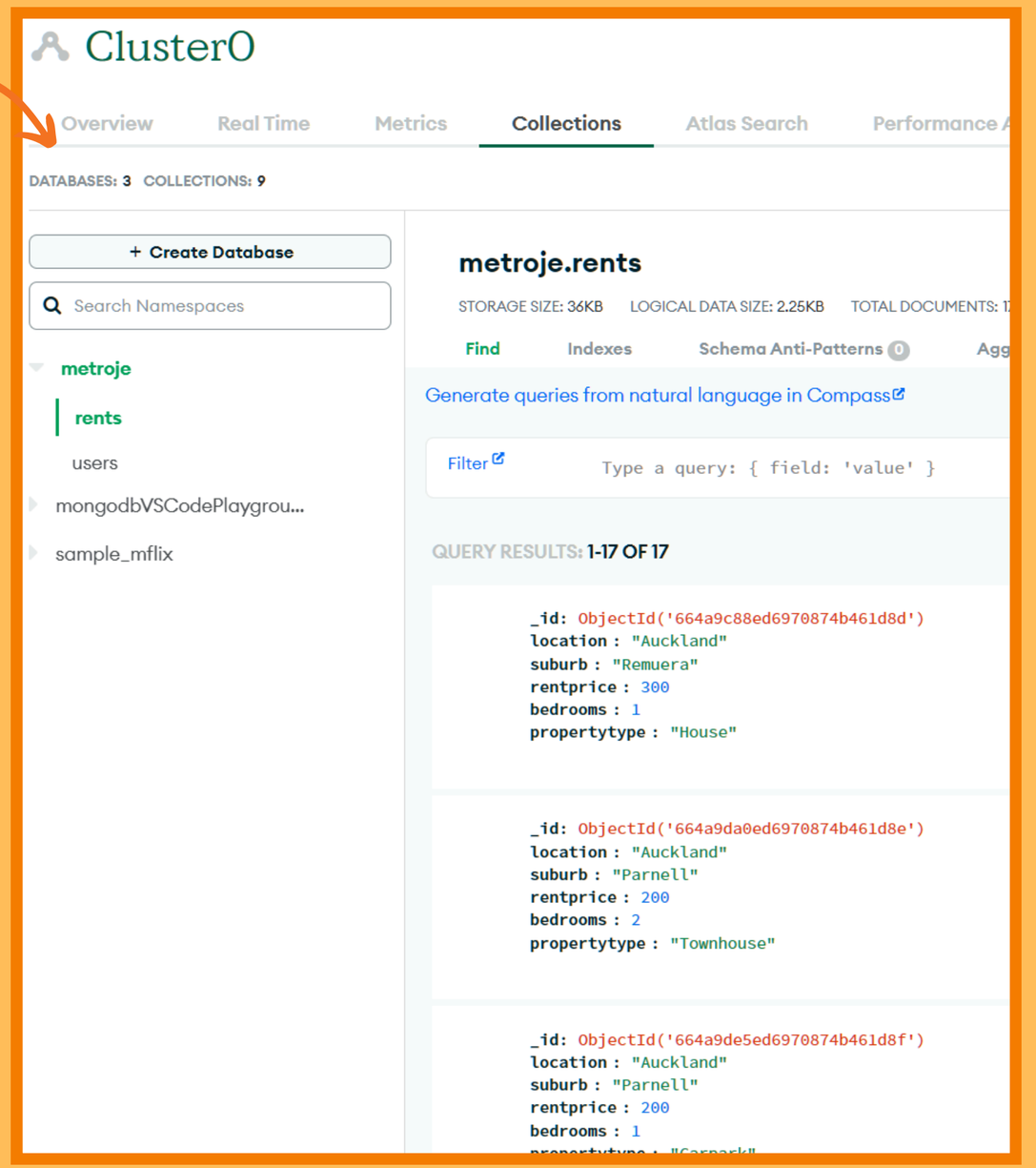
Deployment

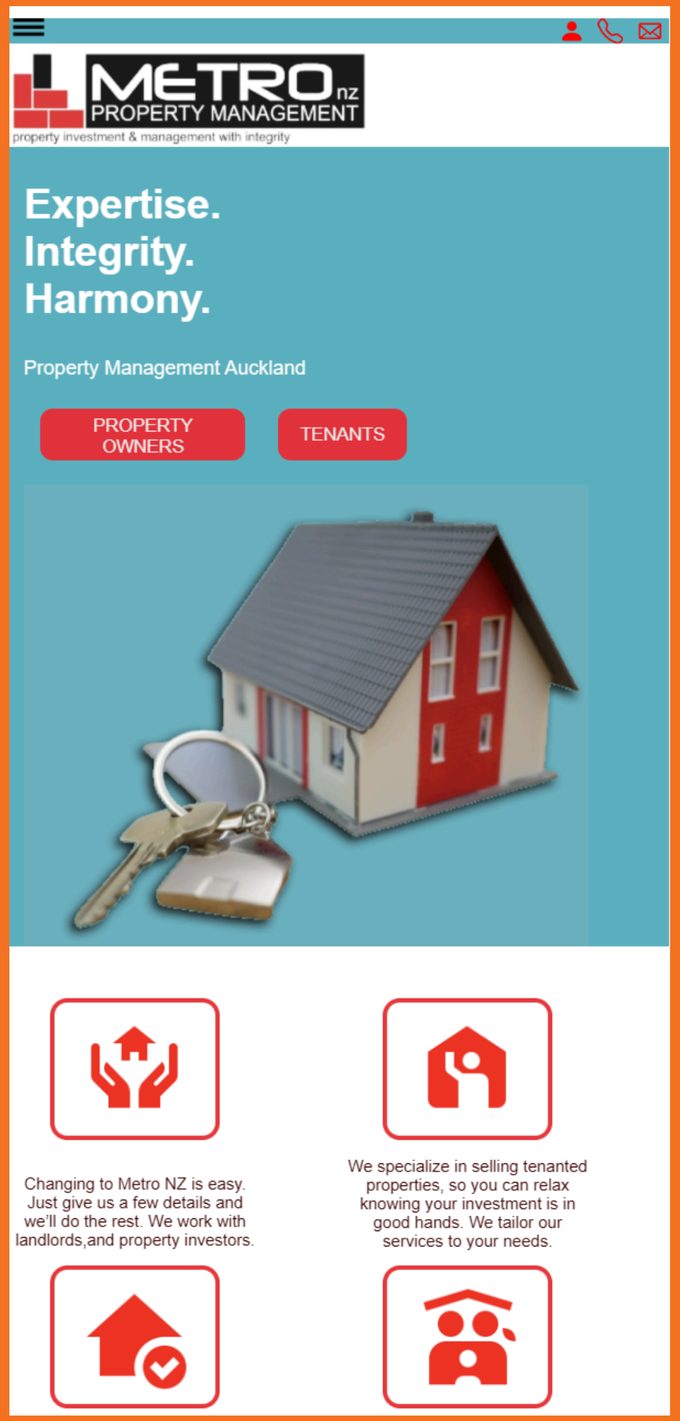
The app was successfully deployed on Vercel for frontend functionality. However, due to the app's dynamic nature and reliance on a backend that processes data from MongoDB, the full functionality of the app requires a more robust deployment environment for backend operations, which is not currently available in the free-tier services.

Limitations

Due to limitations in the deployment environment, the live version of this app does not fully demonstrate its backend features. The app is designed to work with a MongoDB Atlas database and requires server-side functionality that is not currently hosted.

MongoDB Atlas



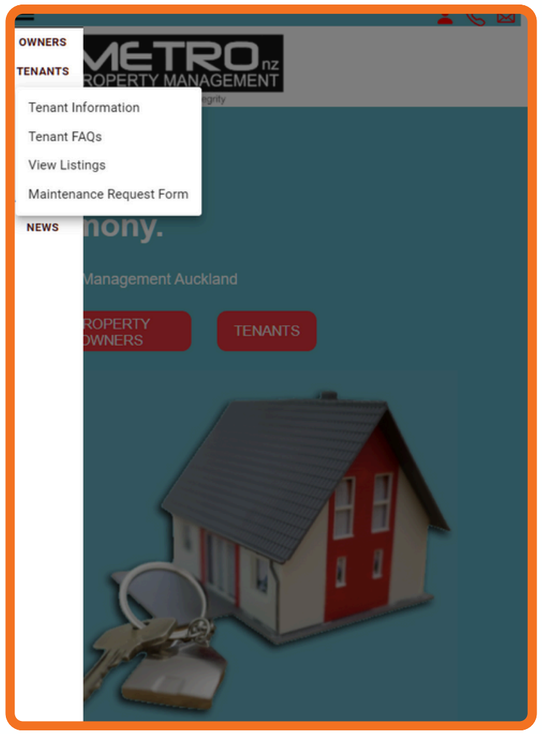


Technologies Used

- Programming Language: **TypeScript**
- Frontend/Backend Frameworks: **Node.js, React, Express**
- Database: **MongoDB**
- Testing Tools: **Jest, Supertest** (for API testing)
- Containerization: **Docker Compose**
- DevOps and Deployment: **GitHub Actions for CI/CD pipeline, deployed to Cloud Run**

Development Process

We worked collaboratively through GitHub, sharing common components and responsibilities across the frontend and backend. Each team member contributed to different aspects of the project, and we utilized GitHub to manage code sharing and version control.



I personally focused on building the homepage and later improved backend functionality to enable proper filtering of tenant listings. This experience allowed me to better understand both frontend and backend aspects of development.

Installation and Usage

01

Clone the repository:

```
git clone https://github.com/pocpat/metroje
```

02

Build and run the project with Docker Compose:

```
docker-compose up --build
```

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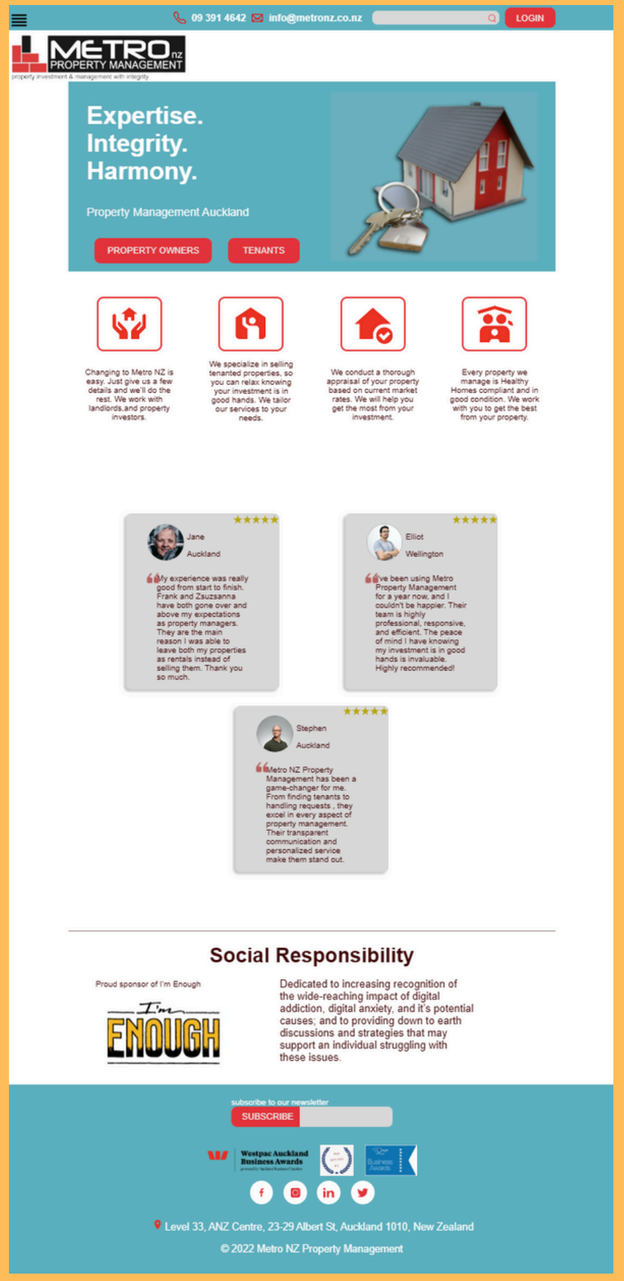
Thank you for taking the time to read about my home rent application project. This project reflects my passion for full-stack development and my ability to work on both the frontend and backend while collaborating with a team. I continuously strive to learn and grow in web development, and I look forward to applying my skills in future projects.