



**L**OVELY  
**P**ROFESSIONAL  
**U**NIVERSITY

**Project Report On**

**Realtor clone react app**

**Prepared for  
Continuous  
Assessment 3**

**SUBMITTED TO: -**

**Professor Nitish Kumar**

**SUBMITTED BY: -**

**Tarun Singh (12217110)**

## DECLARATION

I hereby declare that the project work entitled “**Realtor clone react app**” submitted to the LOVELY PROFESSIONAL UNIVERSITY is a record of an original work done by me under the guidance of “**Nitish Kumar**”, and this project work submitted in the partial fulfillment of the requirements for the award of the degree of **BACHELOR OF COMPUTER ENGINEERING**. The results embodied in this thesis have not been submitted to any other University or Institute for the award of any degree or diploma.

Tarun Singh

Reg no: **1221710**

## **ACKNOWLEDGEMENT**

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**Tarun Singh (12217110)**

**Thank you everyone!**

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## **ABSTRACT**

This website is a complete end to end solution to cover all aspects of real estate. Property buying selling procedure for small and large organization and individuals. It is basically a user friendly contact and property manager for real estate professionals and property buyers. The main role of the project is Real estate system serves the server operator when user is searching the properties to buy, uploading the property details, uploading information of users who are either buyer or seller. It also serves customers to search about the property through the web. It focuses on main operation like selling, buying and searching but the financial operation is out of scope.

## INTRODUCTION: -

The online Real Estate Property Management is a web portal helping the clients seeking to sell their property and the clients seeking a property for their use easy by providing them an easy platform. The clients just need to register on the portal and he/she will get options to add a property or search a property according to the location and other parameters. Thus reducing their time to go places in search of a property and moreover the need to register their property with the local agents which indeed is a very tedious task. 1.1 Motivation Technology plays a very important role in today's life. Everything from regular routine work to big industry operations are getting digitized. Computers today are making everyone's life much easier than before. Everything nowadays is online from buying clothes, travel ticket reservation to booking movie tickets etc. E-commerce is becoming a competitive industry and according to experts it is still in its infant stage and has a very good future to look forward to. The real estate properties have always been a point of interest among the people and after technological revolution people have started trading properties over the internet. Due to the advantage of large data storage and easy access people can now easily browse through wide range of properties easily over the internet with minimal effort and then can invest or buy more conveniently. The internet has changed the real estate business drastically and will continue to revolutionize it with new concepts. This project is another step in that direction. It will enhance the real estate market even more by providing a website which will take care of all users' needs and will help them in every possible way to buy and sell properties online. It will become a point of contact between the interested buyers and property sellers. Each user will be able to register him/herself on the website and then will be able to either buy a property posted by another user or post a property on the website for the purpose of selling it. 10

**1.2 Problem Statement** It is a basic system that will keep record of housing properties available on sale, and will work as connecting bridge between customer and property sellers. The information of various properties in various locations can be accessible at one place. It

will also keep record of contact information of customer to inform them about an event related to their property. It will manage the properties effectively and efficiently.

**1.3 Scope** The project will deliver an altogether new version of online real estate property management with an added feature of home page displayed properties. Will reduce the work and improve efficiency as a user will be having everything on one website. The portal will provide a facility of notifications to the user.(Eg: A user wants to share some property details with his friend, then he view his contact info and send him the required details). Daily feeds will be provided to the user when he logs in. A person can directly start browsing the properties from there itself. FAQ's and other interactive features will make website more user friendly. Feedback option will be available. Loan provider details will also be available. Important support Email Ids will be displayed on the website. The website administrators contact details will also be available.

## **OBJECTIVE OF THE PROJECT**

The objective of this project is to develop a comprehensive and user-centric digital solution tailored for the real estate sector. The aim is to bridge the gap between property seekers, sellers, and agents by leveraging advanced technologies, enhancing accessibility, and promoting seamless interactions. This platform aspires to address existing challenges in the real estate industry, such as transparency, communication barriers, and inefficiencies in property management and transactions.

### **1. Enhancing User Experience**

- **Ease of Property Search:** Create an intuitive platform where users can effortlessly explore properties based on their preferences, such as location, budget, property type, and amenities.
- **Personalized Recommendations:** Integrate AI-based tools to analyze user behavior and preferences, offering tailor-made property suggestions for an enhanced search experience.
- **Interactive Interfaces:** Utilize interactive visuals such as 3D tours, high-quality imagery, and detailed floor plans to provide users with an immersive property viewing experience.

## 2. Fostering Transparency

- **Accurate Property Information:** Ensure all listings are verified and contain up-to-date information, including pricing, property history, and neighborhood details.
- **Integrated Communication:** Enable direct communication channels between buyers, sellers, and agents to facilitate transparent negotiations and inquiries.
- **Review and Rating System:** Incorporate a feedback mechanism where users can review properties, agents, and experiences, building trust within the community.

## 3. Streamlining Transactions

- **Simplified Documentation:** Automate key processes such as documentation, agreements, and contracts to minimize paperwork and reduce errors.
- **Secure Payment Gateways:** Provide safe and efficient payment options for transactions, ensuring user data protection and reducing the risk of fraud.
- **Legal Support:** Offer guidance on compliance with local property laws and regulations to assist users in making informed decisions.

## 4. Expanding Reach

- **Global Accessibility:** Design the platform to cater to both local and international clients, enabling property dealings across borders.
- **Multi-Language Support:** Include multilingual features to serve a diverse clientele, removing language as a barrier in property transactions.
- **Marketing Tools for Agents:** Equip real estate agents with advanced tools for listing management, customer outreach, and performance tracking.

## 5. Leveraging Technology

- **AI and Machine Learning:** Integrate predictive analytics for property valuation, market trend analysis, and customer insights.
- **Blockchain for Security:** Employ blockchain technology to secure transactions and property records, ensuring transparency and reducing disputes.
- **Mobile Optimization:** Develop a responsive platform optimized for smartphones and tablets, allowing users to access services anytime, anywhere.



## 6. Sustainability and Social Impact

- **Eco-Friendly Listings:** Highlight environmentally sustainable properties and promote green living.
- **Community Development:** Create a platform that supports affordable housing projects and connects users with community initiatives.

This project aims to redefine how real estate transactions are conducted by focusing on technological innovation, transparency, and user satisfaction. By addressing key pain points and delivering a robust solution, this platform aspires to become a reliable and efficient tool for all stakeholders in the real estate ecosystem.

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## SYSTEM IMPLEMENTATION

The system implementation focuses on the frontend aspects of the project, built using **React.js**, leveraging **React Hooks**, **Redux**, and related tools for state management and user interface optimization. Below is a detailed overview of the implementation:

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### 1. Application Architecture

The project follows a **component-based architecture** where the application is divided into reusable and modular components to enhance scalability and maintainability.

- **Components:** Designed for modularity, including:
    - **PropertyList:** Displays property listings with sorting and filtering capabilities.
    - **PropertyDetails:** Provides detailed information about a selected property.
    - **SearchBar:** Allows users to search properties based on various criteria.
    - **AgentContact:** Facilitates communication between users and agents.
    - **UserDashboard:** Includes features for saved properties, user preferences, and more.
- 

### 2. State Management with Redux

Redux is used to manage the application's state globally, ensuring a predictable data flow across the components.

- **Store Configuration:**
  - `propertyReducer`: Handles property data, including loading listings and filtering.
  - `userReducer`: Manages user-specific data such as authentication, preferences, and saved searches.
  - `agentReducer`: Tracks agent-related information and their interactions with users.
- **Middleware:**
  - `redux-thunk` is implemented for asynchronous operations like API calls to fetch property data or user information.

## 3. User Interface (UI) with React Hooks

React Hooks like `useState`, `useEffect`, and `useReducer` are used to manage local component states and side effects effectively.

- **Dynamic Data Loading:**
    - `useEffect` is used to fetch property data and update components dynamically when filters are applied.
  - **Real-Time Updates:**
    - Hooks like `useState` handle real-time updates for inputs, such as search fields and filter options.
  - **Custom Hooks:**
    - `useFetch`: For fetching API data and handling loading/error states.
    - `usePagination`: Manages pagination logic for property listings.
- 

## 4. UI/UX Design

The interface is designed with user-friendliness and responsiveness in mind, implemented using **CSS-in-JS libraries** like **styled-components**.

- **Key Features:**
    - **Responsive Design**: Optimized for mobile, tablet, and desktop screens using a grid system and media queries.
    - **Interactive Elements**: Dropdown filters, sliders for price range, and modals for property details.
    - **Animations**: Implemented using libraries like **Framer Motion** for smooth transitions and hover effects.
-

## 5. Routing with React Router

React Router is employed for navigation between different sections of the application.

- **Routes:**
  - `/`: Homepage displaying featured properties.
  - `/properties`: All property listings with filters.
  - `/property/:id`: Individual property details.
  - `/dashboard`: User dashboard for managing saved searches and preferences.
- **Dynamic Routing:**
  - Route parameters (e.g., `:id`) are used to fetch and display specific property details.

## 6. Third-Party Libraries

Various third-party tools and libraries are integrated to enhance functionality:

- **Material-UI:** For pre-built React components with consistent styling.
  - **React-Select:** For dropdowns with multi-select functionality.
  - **React-Slick:** For carousel displays, such as featured properties.
  - **React-Toastify:** To display notifications for user actions like saved properties.
- 

## 7. Testing and Debugging

- **Unit Testing:** Conducted using **Jest** and **React Testing Library** for components like `PropertyCard` and `SearchBar`.
- **Integration Testing:** Validated interaction between `PropertyList`, `SearchBar`, and Redux store.
- **Debugging:** Tools like **Redux DevTools** and **React Developer Tools** ensure smooth debugging.

## 8. Version Control:

Version control is a system that records changes to files over time, enabling multiple developers to collaborate on a project, track revisions, and maintain an organized history of their work. It's an essential tool in software development, helping teams manage source code, resolve conflicts, and revert to previous versions when necessary. Version control systems (VCS) come in two primary types: centralized and distributed. Centralized systems, like Subversion (SVN), use a single repository that all team members work from, while distributed systems, such as Git, allow each user to maintain their own repository and then sync changes with others.

Git, the most widely used version control system today, is a distributed VCS that offers powerful tools for managing branches, merging code, and collaborating across teams. Through branching, developers can create separate paths for adding new features, fixing bugs, or experimenting without affecting the main codebase. Once changes are ready, they can be merged into the primary branch, allowing continuous integration of improvements while maintaining project stability.

Version control systems also provide logs and commit histories, enabling developers to see who made what changes, when, and why. This accountability is crucial for collaboration and quality control in large projects, making version control an indispensable tool for software development, documentation, and any projects requiring reliable tracking and collaboration.

# SNAPSHOTS

Bishnoiz Properties

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[Offer](#)

[Sign in](#)

## Sign Up



Have an account? [Sign In](#)

[Forgot Password](#)

SIGN UP

OR



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[Sign in](#)

## Sign In



Don't have an account? [Register](#)

[Forgot Password](#)

SIGN IN

OR



CONTINUE WITH GOOGLE

## My Profile

Do you want to change your name? [Edit](#)[Sign out](#)

SELL OR RENT YOUR HOME

### 1 BHK Flat for Rent - \$ 50 / month

DLF Phase 3, Gurgaon

[Rent](#)[\\$450 discount](#)

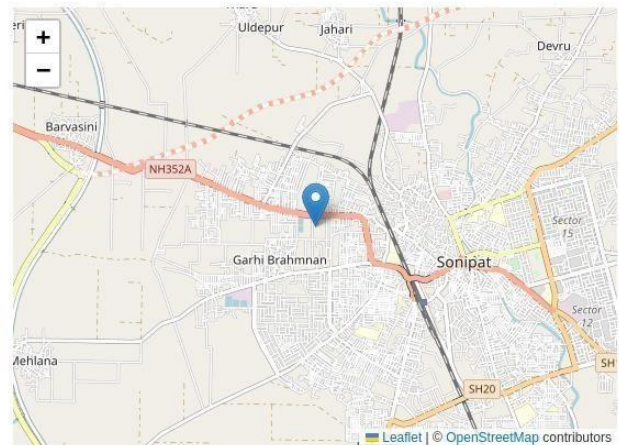
**Description** - This is a modern and stylish home available for affordable rent in Gurgaon. It is a 1 BHK Flat situated at Sector 24. Designed to meet your lifestyle needs, the Flat provides a range of modern amenities for the comfort of the residents.

2 Beds

1 Bath

No parking

Not furnished

[CONTACT LANDLORD](#)



## 1 BHK Flat for Rent - \$ 50 / month

📍 DLF Phase 3, Gurgaon

Rent

\$450 discount

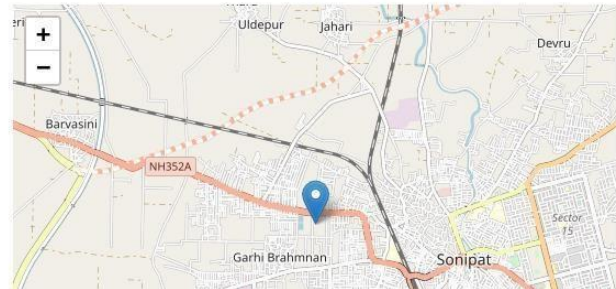
**Description** - This is a modern and stylish home available for affordable rent in Gurgaon. It is a 1 BHK Flat situated at Sector 24. Designed to meet your lifestyle needs, the Flat provides a range of modern amenities for the comfort of the residents.

🛏 2 Beds

🛁 1 Bath

🚗 No parking

🏠 Not furnished



Bishnoiz Properties

Home

Offer

Profile

📍 Haryana

hgvvvkvvhv

\$500 / month

1 Bed 1 Bath



📍 Delhi India

delhi appartement for r...

\$2,000 / month

3 Beds 2 Baths



📍 Shagun House, Chikwadi, Malad...

1 RK Independent Hous...

\$500 / month

1 Bed 1 Bath



📍 DLF Phase 3, Gurgaon

1 BHK Flat for Rent

\$50 / month

2 Beds 1 Bath

## Places for sale

[Show more places for sale](#)



📍 Faridabad , Haryana

fftytkhbjbj jhhbj

\$499

1 Bed 1 Bath



📍 Faridabad

BPTP Parklands

\$5,000,000

3 Beds 2 Baths



📍 Village Behrampur, Sector 59, Gol...

Mahindra Luminare Pha...

\$499

5 Beds 3 Baths



📍 Manesar, Gurgaon, Haryana, India

Signature Global City 92

\$7,000

5 Beds 3 Baths

localhost:3000/category/sale/XQthajXP503vv4fEPW/KV



2 Beds 1 Bath

5 Beds 3 Baths

4 Beds 3 Baths

3 Beds 2 Baths

## Places for rent

[Show more places for rent](#)

4 MONTHS AGO

10749

Haryana

hgvvvkhvh

\$500 / month

1 Bed 1 Bath

10 MONTHS AGO



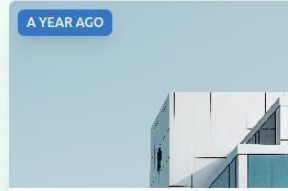
Delhi India

delhi appartement for r...

\$2,000 / month

3 Beds 2 Baths

A YEAR AGO



Shagun House, Chikwadi, Malad...

1 RK Independent Hous...

\$500 / month

1 Bed 1 Bath

A YEAR AGO



DLF Phase 3, Gurgaon

1 BHK Flat for Rent

\$50 / month

2 Beds 1 Bath

## Places for sale

[Show more places for sale](#)

4 MONTHS AGO



4 MONTHS AGO



A YEAR AGO



A YEAR AGO



## Recent offers

[Show more offers](#)

A YEAR AGO



DLF Phase 3, Gurgaon

1 BHK Flat for Rent

\$50 / month

2 Beds 1 Bath

A YEAR AGO



Village Behrampur, Sector 59, Gol...

Mahindra Luminaire Pha...

\$499

5 Beds 3 Baths

A YEAR AGO



Mumbai, Maharashtra, India

Signature Global Andou...

\$99

4 Beds 3 Baths

A YEAR AGO



Mumbai India

Sobha City

\$198

3 Beds 2 Baths

## Places for rent

[Show more places for rent](#)

4 MONTHS AGO



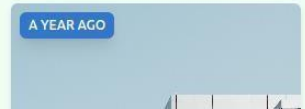
10 MONTHS AGO



A YEAR AGO



A YEAR AGO





## **ADVANTAGE OF TESTING -**

### **QUALITY ASSURANCE:**

It is an essential aspect of Real-Estate development process, ensuring that the platform meets the highest standards of performance, reliability, and user satisfaction. Here's how quality assurance is implemented: Testing Strategy, Automated Testing, Manual Testing, Performance Testing, Security Testing, Continuous Integration and Deployment (CI/CD), User Feedback. By implementing a robust quality assurance process, PodStream aims to deliver a high-quality and reliable platform that provides an exceptional experience for creators and listeners alike.

### **SMOOTH USER EXPERIENCE:**

Ensuring a smooth user experience (UX) is a top priority for Real-Estate, and several strategies are employed to achieve this goal: Intuitive Design, Responsive Layout, Fast Loading Times, Fluid Interactions, Clear Feedback, Streamlined Workflows, Accessibility, User-Centric Approach.

### **CROSS BROWSER COMPATIBILITY:**

Cross-browser compatibility is essential for ensuring that Real-Estate functions correctly and appears consistently across different web browsers.

Here's how PodStream achieves cross-browser compatibility: Testing Across Multiple Browsers, Vendor Prefixes and Polyfills, Feature Detection and Progressive Enhancement, Regular Updates and Maintenance, Responsive Design, Browser Compatibility Libraries. By prioritizing cross-browser compatibility, PodStream aims to ensure that users have a consistent and reliable experience regardless of the web browser they choose to use. This approach enhances accessibility and usability, contributing to a positive user experience for all visitors to the platform.

## **RESPONSIVE DESIGN :**

Responsive design is a fundamental aspect of Real-Estate development strategy, ensuring that the platform provides an optimal viewing and interaction experience across a wide range of devices and screen sizes. Here's how responsive design is implemented in PodStream: Fluid Grid Layout, Flexible Images and Media, Media Queries, Viewport Meta Tag, Responsive Typography, Touch-Friendly Interactions, Cross-Browser Compatibility. By implementing responsive design principles, PodStream aims to provide a seamless and consistent experience for users across desktops, laptops, tablets, and smartphones, enhancing accessibility and usability across all devices.

## **Load Time Optimization:**

Load time optimization is critical for ensuring that Real-Estate delivers a fast and seamless user experience. Here are several strategies employed to optimize load times: Minification and Compression, Image Optimization, Asynchronous Loading, Caching Strategies, Critical Rendering Path Optimization, Code Splitting and Lazy Loading, Reduced HTTP Requests, Server-Side Optimization.

## **SEO Performance:**

Real-Estate optimizes its SEO performance through keyword research, content optimization, mobile-friendliness, page speed optimization, technical SEO, ethical link building, social media integration, and regular monitoring. These efforts aim to improve visibility in search results, attract organic traffic, and enhance the platform's impact in the podcasting industry. **Accessibility:** Accessibility is a priority for Real-Estate, ensuring usability for all users. This includes keyboard navigation, screen reader compatibility, color contrast,

resizable text, accessible forms, video captions, responsive design, and actively seeking user feedback to identify and address accessibility barriers.

### **Functionality Verification:**

Functionality verification is a top priority for Real-Estate. Through thorough requirement analysis and meticulous test planning, we ensure that every feature operates smoothly. Automated testing frameworks streamline the process, supplemented by manual testing to simulate real-world scenarios. By prioritizing functionality verification, PodStream aims to deliver a reliable platform that meets user expectations.

### **Content Validation:**

Content validation is integral to Real-Estate quality assurance efforts, ensuring that all content meets high standards of accuracy, relevance, and legality. Through fact-checking, quality assessment, and legal compliance measures, PodStream verifies the accuracy of information, assesses content quality, and ensures adherence to copyright laws. Additionally, content moderation policies and user feedback mechanisms help maintain a safe and respectful environment while informing curation decisions. By prioritizing content validation, PodStream aims to deliver a curated selection of high-quality podcasts that enhance user experience and platform credibility.

### **Security:**

Security is paramount for Real-Estate, which employs rigorous measures to safeguard user data and prevent unauthorized access. Through encryption protocols for data both in transit and at rest, along with secure authentication methods like multi-factor authentication and password hashing, PodStream ensures user privacy and account security. Regular security audits and updates keep the platform resilient against evolving cyber threats, ensuring a safe

environment for users to enjoy their podcasting experience without compromise. **Professionalism:**

Professionalism is the cornerstone of Real-Estate approach, evident in our commitment to excellence, transparency, and integrity. From customer support to data handling, we maintain high standards in every aspect of our operations, fostering trust and credibility with our users and stakeholders.

### **Continuous Improvement:**

Continuous improvement is fundamental to Real-Estate ethos, fueling our ongoing efforts to enhance our platform, services, and user experience. Through regular feedback and innovation initiatives, we evolve to meet the dynamic needs of our users and industry standards.

## **CONCLUSION :**

The real estate agency project successfully implements a modern, feature-rich, and user-centric platform designed to enhance the property search and transaction experience. By leveraging **React.js**, **Redux**, and other state-of-the-art frontend technologies, the application offers a seamless and intuitive interface that caters to the diverse needs of property seekers, sellers, and agents.

The integration of **React Hooks** ensures efficient state management and component reusability, while **Redux** provides a robust solution for handling global state, enabling realtime data updates and interactions. The inclusion of responsive design and interactive elements guarantees accessibility across devices, ensuring users can interact with the platform anytime and anywhere.

Through thoughtful design and implementation, this project addresses common challenges in the real estate industry, such as transparency, accessibility, and user engagement. By combining

dynamic filtering, real-time data updates, and immersive features like 3D tours and virtual walkthroughs, the platform establishes itself as a reliable and innovative solution.

In conclusion, this project demonstrates the potential of technology to transform the real estate sector by offering a scalable, efficient, and engaging platform. It not only enhances the property transaction experience but also sets a foundation for integrating advanced technologies like AI and blockchain in the future, paving the way for a more streamlined and trustworthy real estate ecosystem.

**GITHUB LINK** - <https://github.com/Tarunjaat2005/realtor-clone-Using-react>

