**INTERNET APPLICATION DEVELOPMENT**

Final Project

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**Real Estate Management and CRM Application**

**Documentation**

**Introduction**

The Property CRM Application is a comprehensive web-based platform developed to streamline property management and facilitate efficient real estate operations. This professional documentation provides an in-depth overview of the application's features, setup instructions, and usage guidelines. The documentation is organized into several phases to ensure a thorough understanding of each aspect of the application.

**Phase 1: Initial Setup**

This phase focuses on the initial setup required to get the Property CRM Application up and running. It involves configuring the backend and frontend components of the application.

1. Backend Setup: The backend of the application is built using the MERN (MongoDB, Express.js, React.js, Node.js) stack. Install and configure the necessary dependencies, including MongoDB, Express.js, and Node.js, to set up the backend infrastructure.
2. Frontend Setup: The frontend of the application is built using React.js, TypeScript, Material UI, and Refine. Install the required dependencies and configure the frontend environment to set up the user interface and client-side functionality.

**Phase 2: Sidebar and Navigation**

In this phase, we focus on creating the application's sidebar and navigation components, which provide easy access to different sections of the application.

1. Sidebar: Implement a sidebar component that serves as a centralized navigation hub. It should include links or buttons to access various sections, such as the Home, Properties, and Agents pages.

**Phase 3: Home Page**

This phase focuses on creating the home page, which serves as the landing page for the application. The Home page should provide an overview of the application's features and highlight key functionalities.

1. Home: Design and implement the Home page, considering an appealing layout and informative content. Include sections that showcase the application's capabilities, such as a brief description, key features, testimonials, and call-to-action elements.

**Phase 4: Properties**

This phase covers the implementation of property-related features, including property listing, creation, and management.

1. Properties Page: Create a dedicated page where users can browse through a list of available properties. Each property should be displayed with essential details, such as the address, specifications, pricing, and images.
2. Create Property: Implement a form that allows users to create new property listings. The form should include fields to input relevant information, such as the property's address, specifications, pricing details, and image uploads.
3. Displaying Properties: Retrieve and display property data from the backend. Implement the necessary logic to ensure accurate and up-to-date information is presented to users. Consider integrating features such as pagination, sorting, and filtering to enhance the user's ability to navigate and search for properties effectively.

**Phase 5: Property Details**

This phase focuses on implementing the property detail page, where users can access comprehensive information about a specific property.

1. Property Details Page: Create a dedicated page to display detailed information about a selected property. Include all relevant information, such as property specifications, pricing details, location map, and a gallery of associated images. Consider incorporating additional features like user reviews or related properties for enhanced user engagement.
2. Update Property Details: Enable users to update property information on the Property Details page. Implement a user-friendly interface that allows users to modify property details such as specifications, pricing, and images. Ensure that the updated details are saved to the system

**Phase 6: Agents**

In this phase, we incorporate functionality related to real estate agents, allowing users to view and manage agent information.

1. Agents Page: Create a dedicated page where users can view a list of real estate agents associated with the properties. Display essential details for each agent, such as their name, contact information, and profile picture. Consider adding search and sorting options to facilitate easy agent discovery.

**Phase 7: Deployment**

The final phase covers deploying the Property CRM Application to a live environment for users to access and utilize.

1. Deployment: Prepare the application for deployment by optimizing its performance and ensuring its security. Choose a suitable hosting platform and deploy the application, ensuring it is accessible to users securely and efficiently. Consider implementing secure authentication mechanisms and encryption protocols to safeguard user data during transit and storage.
2. Continuous Maintenance: Establish a process for continuous maintenance and updates to the application. Regularly monitor and address any bugs, security vulnerabilities, or performance issues that may arise. Consider implementing analytics and error tracking to gain insights into the application's usage and identify areas for improvement.

By following this phased approach, you can systematically develop and deploy the Property CRM Application, resulting in a robust and user-friendly platform for managing properties and facilitating real estate operations.