

# A CRM Application to Handle the Clients and their Property Related Requirements

## 1) Introduction/Overview:

Dreams World Properties leverages Salesforce to enhance customer relationship management and optimize real estate operations. By integrating Salesforce with their website, Dreams World Properties automates the process of capturing customer interactions, preferences, and details in real-time. The system categorizes clients into approved and non-approved users, allowing personalized property recommendations for approved clients, while offering broader selections to others. This seamless integration not only streamlines operations but also elevates customer engagement, delivering a tailored experience that fosters growth in the competitive real estate market. With Salesforce's robust features, Dreams World Properties aims to improve efficiency, client satisfaction, and market reach.

## Definitions:

**Customer Relationship Management (CRM)** refers to a strategy, technology, and process that companies use to manage and analyze customer interactions and data throughout the customer lifecycle. The primary goal of CRM is to enhance customer relationships, improve customer retention, and drive sales growth.

**Salesforce:** One of the leading CRM platforms, offering extensive features for sales, service, marketing, and analytics.

## 2) Objective of the CRM Application:

The primary objective of the CRM (Customer Relationship Management) Application is to create a centralized platform that streamlines the management of client relationships and property-related requirements. This application aims to enhance customer service, improve communication, and optimize operational efficiency for real estate businesses. Specifically, the objectives include:

**Business Goals:** Improve client relationship management and streamline property-related processes.

**Specific Outcomes:** Increased client satisfaction, better data organization, and faster response times for client inquiries and property requirements.

1. **Client Management:** To provide a comprehensive database for storing client information, including contact details, preferences, and communication history, enabling personalized and timely interactions.
2. **Property Management:** To facilitate the management of property listings, including detailed descriptions, pricing, availability, and related documentation, allowing for efficient tracking and updates.
3. **Lead Tracking:** To implement tools for tracking and managing leads, ensuring that potential clients are effectively followed up on and nurtured through the sales pipeline.
4. **Task Automation:** To automate routine tasks such as scheduling appointments, sending reminders, and generating reports, thereby allowing staff to focus on more strategic activities.
5. **Reporting and Analytics:** To provide analytical tools for generating reports on sales performance, client interactions, and property trends, aiding in data-driven decision-making.
6. **User-Friendly Interface:** To ensure the application is intuitive and accessible, allowing users to quickly adapt and maximize its features without extensive training.

**Integration Capabilities:** To enable seamless integration with existing tools and platforms (e.g., email, calendars, and marketing tools) to create a cohesive workflow

### **3) Salesforce Key Features and Concepts Utilized:**

**Lightning Web Component (LWC):** is a modern framework for building reusable, dynamic web interfaces in Salesforce. It's built on native web standards, allowing developers to create components with better performance, maintainability, and scalability. LWC leverages modern web technologies such as custom elements, templates, shadow DOM, modules, and ECMAScript (JavaScript) to enhance user experience in Salesforce applications.

**Apex:** It is a strongly typed, object-oriented programming language used by developers to execute flow and transaction control statements on the Salesforce platform. It is similar to Java and enables developers to add complex business logic to system events like button clicks, record updates, and Visualforce pages. Apex is designed to be tightly integrated with Salesforce, allowing for the execution of customized processes and automation within Salesforce's cloud environment.

**Approval Process** in Salesforce is an automated process that allows records (such as leads, opportunities, contracts, or any custom object) to be submitted for approval based on

specific criteria. It streamlines workflows by routing records to designated approvers and ensures that business-critical decisions are properly reviewed and approved by authorized users. The approval process defines the steps, actions, and logic that a record must go through for approval.

**Flows** in Salesforce are powerful automation tools that enable you to automate complex business processes without writing code. Salesforce Flows are part of the Salesforce Flow Builder, which allows you to build applications and automate tasks by visually designing a process. Flows are highly flexible and can be used to update records, create records, delete records, send emails, and more based on user inputs, data, or events.

## **Other Tools Used:**

**Visual Studio Code (VS Code)** is a free, open-source code editor developed by Microsoft, designed for developers and programmers. It supports a wide variety of programming languages, including JavaScript, Python, C++, and many others.

One of the key features of VS Code is its rich ecosystem of extensions, which allows users to customize their development environment. These extensions can add new languages, debuggers, themes, and other tools, enhancing productivity and supporting a tailored workflow. The editor is built on a lightweight framework, ensuring it runs smoothly even on less powerful hardware.

VS Code also boasts built-in features such as IntelliSense, which provides intelligent code completion based on variable types and function definitions, as well as real-time collaboration through Live Share. Its integrated terminal allows developers to run shell commands directly from the editor, streamlining the development process.

Moreover, VS Code is equipped with powerful debugging tools that enable developers to set breakpoints, inspect variables, and navigate through code seamlessly. Its Git integration facilitates version control, allowing users to manage repositories directly within the editor.

Overall, Visual Studio Code stands out as a versatile and efficient coding tool, offering a balance between functionality and performance, making it a popular choice among developers of all levels.

## **4) Testing and Validation:**

To ensure the CRM application performs optimally and meets business requirements, thorough testing and validation processes will be implemented. The testing approach includes:

### **a. Unit Testing:**

**Apex Classes and Triggers:** Test each Apex class and trigger individually to validate that they perform as expected. This includes testing all scenarios in which they might be invoked, such as data updates, custom workflows, and automation rules. Unit testing will help ensure that any business logic or calculations performed by the code yield correct results.

**Error Handling:** Test error handling within Apex classes and triggers to ensure that potential issues, such as missing data or permissions errors, are appropriately managed.

### **b. User Interface Testing:**

**Usability Testing:** Ensure that the user interface is intuitive and user-friendly, with clear navigation and accessible features. This includes testing the UI across different devices (e.g., desktop, mobile) and browsers to ensure consistency.

**Field Validation and Data Entry:** Check that fields in the client and property forms have proper validation, helping users avoid errors and enter accurate data. Ensure that any data validation rules, such as required fields or input formats, function as intended.

**End-to-End Testing:** Perform end-to-end testing for common workflows, such as creating a new client record, adding a property, or processing a client inquiry. This ensures that each part of the application interacts seamlessly from a user's perspective.

### **c. Property Inquiry Tracking:**

**Property Records:** Maintain a detailed database of available properties, including attributes such as location, type, price range, and availability. This makes it easy to match client needs with available properties.

**Inquiry Management Workflow:** Automate the inquiry process for clients interested in specific properties. When a client makes an inquiry, an automated workflow can assign the task to a sales representative, send an acknowledgment email to the client, and set follow-up reminders.

**Reporting and Analytics:** Generate reports and dashboards to monitor trends in property inquiries, such as popular property types, common client requirements, and areas with high demand. This data-driven insight can help the business optimize its offerings and focus on high-demand property categories.

**Automated Notifications for Status Updates:** Set up automated notifications to inform clients of changes in property availability or pricing, ensuring that clients are kept up to date without manual follow-up.

These scenarios ensure that the Salesforce CRM application enhances the efficiency and effectiveness of client and property management processes, ultimately improving customer satisfaction and streamlining operations.

## Snapshots:

## Jotform:

The screenshot shows a web browser with multiple tabs open. The active tab is 'form.jotform.com/242994376991072'. The form is titled 'Dreams World' and contains the following fields and options:

- Name \***: Two input fields for 'First Name' and 'Last Name'.
- Email**: One input field with placeholder text 'www.jotform.com'.
- Phone Number**: One input field with placeholder text '0000 000-0000' and a note 'Please enter a valid phone number.'
- Which Type of Property are you looking for?**: Three radio button options: 'RESIDENTIAL', 'COMMERCIAL', and 'RENTAL'.
- Budget Amount**: One input field with placeholder text 'e.g. 25'.
- Address**: Three input fields for 'Street Address', 'Street Address Line 2', and 'City'.
- State / Province**: One input field.
- Postal / Zip Code**: One input field.
- Submit**: A green button at the bottom of the form.

The Jotform logo is visible in the bottom left corner of the page.

## Code:

The screenshot shows a VS Code editor with the following files open:

- salesforce.js**: A JavaScript file with the following code:

```
1 import { LightningElement, api } from 'lwc';
2
3 import { getProperty } from '@salesforce/apex/C_01_Property';
4
5 import { getRecord } from 'lightning/uiRecordApi';
6
7 import USER_ID from '@salesforce/user/recordId';
8
9 export default class C_01_Property extends LightningElement {
10
11     @api recordId;
12
13     userId = USER_ID;
14
15     verifiedvar;
16
17     typevar;
18
19     isfalse = true;
20
21     istrue = false;
22
23     @track propertylist = [];
24 }
```
- salesforce.js-meta.xml**: A metadata file with the following code:

```
1 <?xml version="1.0" encoding="UTF-8"?>
2
3 <LightningComponentBundle xmlns="http://soap.sforce.com/2016/08/01/apex"
4
5     <apiVersion>59.0</apiVersion>
6
7     <isExposed>true</isExposed>
8
9     <targets>
10
11         <target>lightning__RecordPage</target>
12
13         <target>lightning__AppPage</target>
14
15         <target>lightning__HomePage</target>
16
17     </targets>
18
19 </LightningComponentBundle>
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9     <targets>
10
11         <target>lightning__RecordPage</target>
12
13         <target>lightning__AppPage</target>
14
15         <target>lightning__HomePage</target>
16
17     </targets>
18
19 </LightningComponentBundle>
```
- salesforce.html**: A HTML file with the following code:

```
1 <template>
2
3     <lightning-card>
4
5         <div class="slds-box">
6
7             <div class="slds-text-align-center">
8
9                 <h1 style="font-size: 24px;">Dreams World</h1>
10
11             </div>
12
13             <div>
14
15                 <div class="slds-grid">
16
17                     <div class="slds-col">
18
19                         <lightning-combobox>
20
21                             <options>{propertylist}</options>
22
23                         </lightning-combobox>
24
25                     </div>
26
27                 </div>
28
29             </div>
30
31         </div>
32
33     </lightning-card>
34
35 </template>
```

The VS Code interface shows the Explorer, Search, and Run and Debug views. The bottom status bar indicates the file is 'Ln 19, Col 28' and the encoding is 'UTF-8'.

### Entries:

**Jotform** | Tables ▾

Dreams World  
Last updated at 8:19 PM G

[Share](#) [Help](#)

---

Dreams World + New Tab

Q Search	Filter ▼	1 entry selected ✕	Deselect all
<input type="checkbox"/> ▾	<input type="checkbox"/> Submission Date 📅	<input checked="" type="checkbox"/> Name	<input type="checkbox"/> @ Email
<input checked="" type="checkbox"/> ☆	Oct 29, 2024	Priya Aswath	(123) 456-7890
+ ADD			

[↑](#) [↓](#) 1 of 1 Entries
 [Download](#) [Print](#) [More](#) [Entry Settings](#) [Close](#)

### 1. Priya Aswath

Updated at Oct 29, 2024

Submission Date  
Oct 29, 2024

Name  
Priya Aswath

Email  
abc@gmail.com

Phone Number  
(123) 456-7890

Which Type of Property are you looking for?  
**RESIDENTIAL**

Budget Amount  
50000

Total 1

### Entries Reflection on Salesforce:

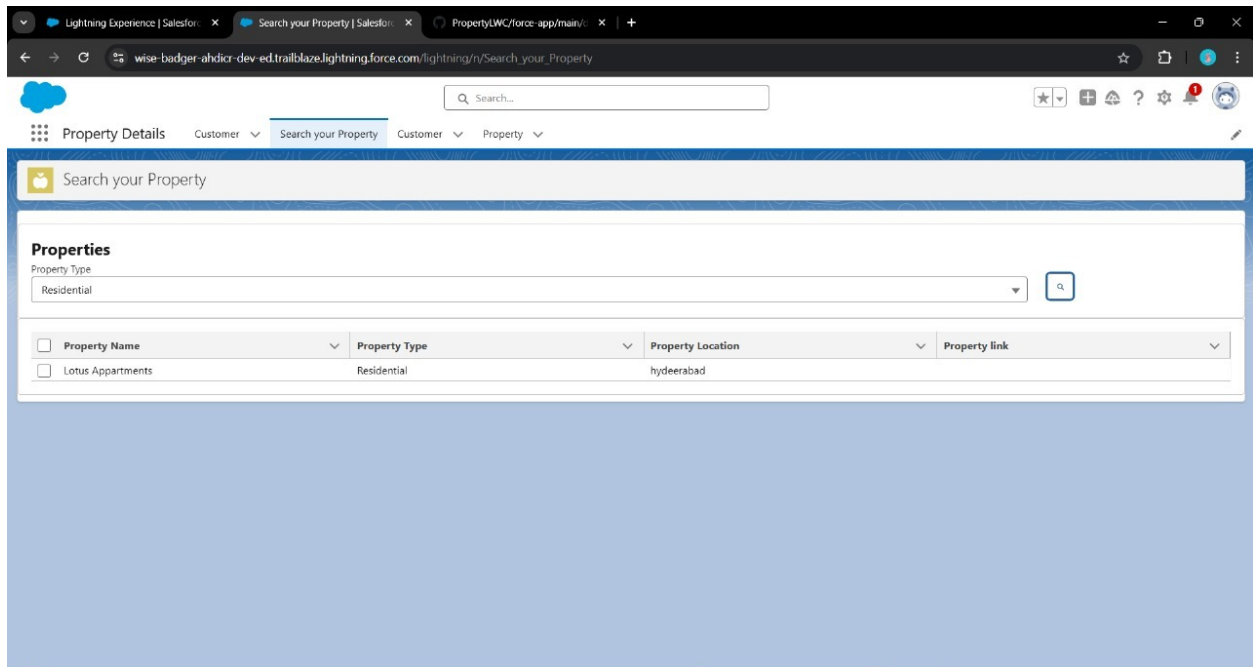
**Customer Property Details**

Customer **All Records**

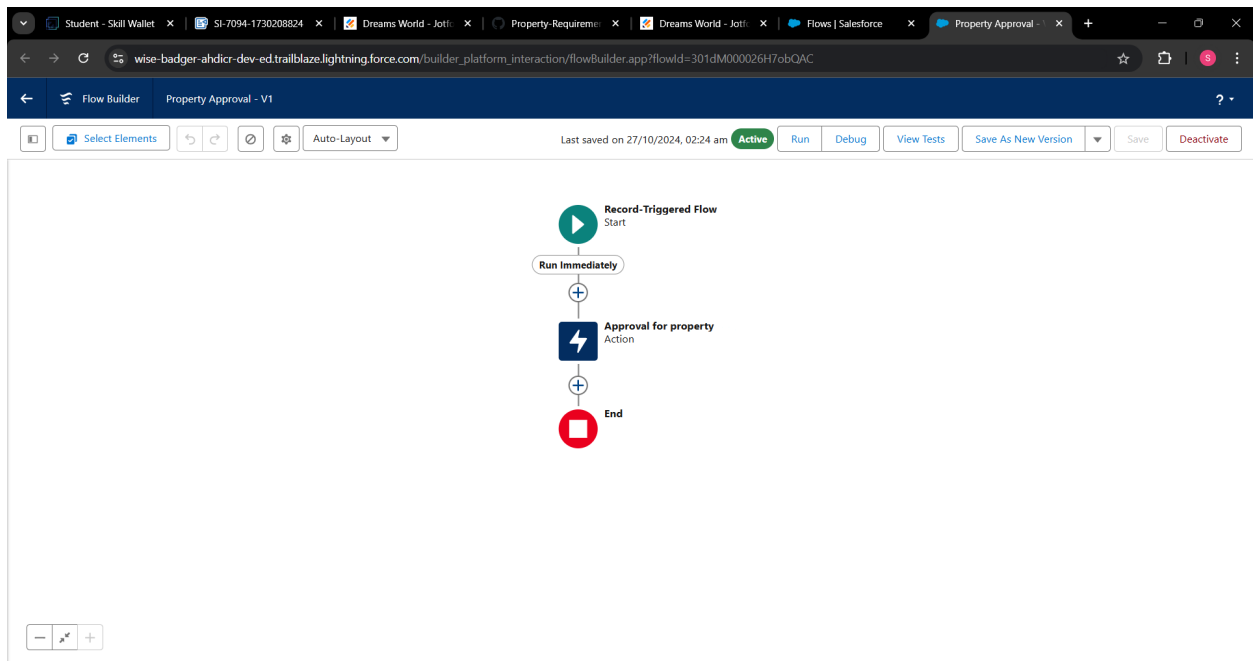
4 items • Sorted by Customer\_n • Filtered by All customer • Updated a few seconds ago

	Customer_n ↑	Custo...	Phone Number	Email	State	Property T...	Budget ...	Street Address	Street Ad...	City	postal ...
1	a0DdM00000E8MBQ	Rakesh	788797.0	rakesh@gmail.com	Telangana	Residential	40,00,000	gb road	street no 45	Hyderabad	555001
2	a0DdM00000E8MBR	prakash	55448855	p@gmail.com	Maharashtra	Commercial	80,00,000	gachibowli	indira road	mumbai	6600014
3	a0DdM00000E8MBS	Prajwal	454545.0	prajwal@gmail.com	Maharashtra	Rental	25,000	kamdli	kathora	Amravati	444805
4	Priya Aswath	(123) 456-7890	abc@gmail.com	Andhra Pradesh	RESIDENTIAL	50,000	20a-5/2, Ashok enclave		Bhimavaram	534202	

## Lightning Web App - VScode project integration



## Approval Flow



## **5) Key scenarios addressed by Salesforce in the Implementation of the Project (Scope of the CRM Application):**

The scope of the CRM Application encompasses the following key areas:

### **1. Target Users:**

- Real estate agents and brokers
- Property managers
- Marketing teams
- Administrative staff

### **2. Core Features:**

- **Client Database:** A robust database to store and manage client profiles, interaction history, and preferences.
- **Property Listings:** A module to create, manage, and display property listings, including features for images, descriptions, and availability status.
- **Lead Management:** Tools to capture, track, and nurture leads, including automated follow-up reminders and task assignments.
- **Communication Tools:** Integrated messaging and email capabilities to facilitate communication between agents and clients.
- **Reporting Dashboard:** A dashboard for visualizing key metrics, including lead conversion rates, sales performance, and client engagement levels.

### **3. Integration and Compatibility:**

- The application will be designed to integrate with third-party tools such as email services (e.g., Gmail, Outlook), calendar applications, and marketing platforms (e.g., Mailchimp).
- The system will be compatible with both desktop and mobile devices to accommodate users' varying preferences for accessing the application.

### **4. Data Security and Privacy:**

- Implementation of robust security measures to protect sensitive client information, including data encryption, secure user authentication, and compliance with data protection regulations (e.g., GDPR).
- Features to allow clients to manage their own data privacy settings and consent for communication.

### **5. Customization and Scalability:**

- The application will allow for customization based on the specific needs of different real estate businesses, including customizable workflows, fields, and reporting metrics.
- Scalability to support the growth of user bases and increase in data volume over time without compromising performance.

### **6. Support and Training:**



- Provision of user support, including tutorials, documentation, and customer service, to assist users in navigating the application and resolving issues.
- Training programs to ensure users are well-equipped to utilize all features of the CRM effectively.

## **6) Conclusion:**

In conclusion, the CRM Application is designed to address the specific needs of real estate professionals by providing a robust tool for managing client relationships and property-related tasks. By enhancing efficiency, improving communication, and enabling data-driven decision-making, the application aims to support the overall growth and success of real estate businesses.