

Project Documentation: A CRM Application to Handle the Clients and their property Related Requirements.

Category: Salesforce

Skills Required:

Salesforce Admin, Salesforce Developer

Link : <https://www.salesforce.com/trailblazer/shobhitabhata>

Project Description:

Dreams World Properties integrates Salesforce to streamline customer interactions. Website engagement triggers automated record creation in Salesforce, capturing customer details and preferences. Salesforce categorizes users as approved or non-approved, offering tailored property selections to approved users. This enhances user experience and efficiency, providing personalized recommendations and broader listings. Seamless integration optimizes operations, improving customer engagement and facilitating growth in the real estate market.

Objectives:

- To automatically capture client information using JotForm and create corresponding records in Salesforce.
- To manage customer and property data through custom objects.
- To define roles and profiles that mirror the organizational hierarchy.
- To automate property approval processes using record-triggered flows.
- To create a user-friendly application interface with custom components.

Scope:

Inclusions:

- Integration of JotForm with Salesforce.
- Creation of custom objects for managing customer and property data.
- Definition of roles, profiles, and users.
- Development of an automated approval process for property records.
- Creation of custom Lightning Web Components (LWC) and app pages.

Exclusions:

- Integration with external property listing platforms.
- Development of mobile applications.

Stakeholders:

- **Customer**

- **Role:** End-user interacting with the sales team and CRM system.
 - **Responsibilities:** Provide feedback, track inquiries, and engage with the sales team.
- **Manager**
 - **Role:** Oversees sales operations and CRM alignment with business objectives.
 - **Responsibilities:** Set goals, monitor performance, and utilize CRM reports.
- **Sales Executive**
 - **Role:** Manages client relationships and transactions.
 - **Responsibilities:** Use CRM for lead management, interactions, and tracking.
- **Sales Representative**
 - **Role:** Engages with clients to gather requirements and facilitate sales.
 - **Responsibilities:** Manage client data, track property status, and support sales executives.

System Requirements:

Functional Requirements

- **JotForm Integration:**
 - Create a JotForm to capture customer information.
 - Automatically create a customer record in Salesforce when the form is submitted.
- **Custom Objects:**
 - Create **Customer** and **Property** objects using data from a provided spreadsheet.
 - Define relationships between these objects.
- **Role Hierarchy:**
 - Create roles for **Sales Executive** (reports to Sales Representative), **Sales Manager** (reports to Sales Executive), and **Customer** (reports to Sales Manager).
- **Property Details App:**
 - Develop an app to manage and view property details within Salesforce.
- **Profiles and Users:**
 - Create profiles for **Customer** and **Manager** with appropriate access permissions.
 - Create 4 users and assign them to the respective roles.
- **Approval Process:**
 - Create an approval process for the Property object to manage property-related approvals.
 - Implement a record-triggered flow to automatically submit the approval process.
- **App Page and LWC:**
 - Create a custom Lightning Web Component (LWC).
 - Create an app page and drag the LWC onto the page.
- **Apex Class Permissions:**
 - Assign access to specific Apex classes based on profiles.

Non-Functional Requirements

- **Scalability:** The system should handle an increasing number of customer and property

records without performance degradation.

- **Performance:** User interactions with the CRM should have a response time of fewer than 2 seconds.
- **Security:** Data security is paramount; access controls should be enforced based on roles and profiles.
- **Usability:** The CRM application should have an intuitive user interface for ease of use.

System Design:

Architecture Overview

The CRM system is built on Salesforce, utilizing its robust platform for customer and property management. Key components include:

- **Salesforce Platform:** The backbone for data storage, business logic, and user management.
- **JotForm Integration:** For capturing client data and automatically creating Salesforce records.
- **Custom Objects:** Customer and Property objects tailored to the business needs.
- **Approval Processes and Flows:** Automating the approval of property records.
- **Lightning Web Components (LWC):** Custom UI components for enhanced user interaction.
- **Profiles and Roles:** Configured to enforce data access and security.

Data Model

- **Customer Object:** Fields include Name, Contact Information, Property Preferences, and Interaction History.
- **Property Object:** Fields include Property Name, Location, Price, Status, and Customer Associations.
- **Relationships:** Customer objects are linked to Property objects to track inquiries and transactions.

User Interface Design

- **App Page:** Centralized page for managing customers and properties, featuring LWC components.
- **LWC Component:** A custom component displaying detailed property information, including status and customer interactions.
- **Navigation:** Easy access to customer and property records, approval processes, and reports.

Milestones and Implementation Plan

Milestone 1: Create a JotForm and Integrate with Salesforce

- **Create JotForm:**
 - Design fields to capture essential customer information.

- Configure form settings for Salesforce integration.
- **Integrate JotForm with Salesforce:**
 - Set up the integration using JotForm's Salesforce connector.
 - Map JotForm fields to Salesforce Customer object fields.
- **Test Integration:**
 - Verify successful creation of Customer records in Salesforce.
 - Conduct end-to-end tests to ensure data accuracy and integration reliability.
- **Documentation and Training:**
 - Document the integration process and provide training for users who will manage the JotForm and Salesforce integration.

The screenshot displays the JotForm builder interface in a web browser. The address bar shows the URL: [jotform.com/build/242243590362049](https://form.jotform.com/build/242243590362049). The interface features a top navigation bar with 'BUILD', 'SETTINGS', and 'PUBLISH' tabs. On the left, a 'Form Elements' sidebar is open, showing categories like 'BASIC', 'FORMS', 'WIDGETS', and 'ADVANCED'. The main workspace shows a form titled 'Dreams World' with the following fields: 'Name' (split into 'First Name' and 'Last Name'), 'Email', 'Phone Number' (with a placeholder '(000) 000-0000' and a note 'Please enter a valid phone number'), a radio button question 'Which type of property are you looking for?' with options 'Residential', 'Commercial', and 'Rental', a 'Budget Amount' field (placeholder 'e.g., 23'), an 'Address' section with 'Street Address' and 'Street Address Line 2' fields, and 'City', 'State / Province', and 'Postal / Zip Code' fields. A green 'Submit' button is at the bottom of the form. The Jotform logo and a 'Create your next Jotform' button are visible at the bottom of the page.

SCREENSHOT:JotForm creation interface showing form design and settings.

URL: <https://form.jotform.com/242243590362049>

Milestone 2: Create Objects from Spreadsheet

- **Create Customer Object:**
 - Define object fields based on spreadsheet data.
 - Set up field types, validation rules, and record types.
- **Create Property Object:**
 - Configure fields to capture property details and statuses.
 - Establish relationships between Customer and Property objects.
- **Data Import:**

- Use Salesforce Data Import Wizard or Data Loader for initial data upload.
- Validate data integrity post-import.
- **Data Quality Checks:**
 - Conduct data quality checks to ensure accuracy and completeness.

The screenshot shows the Salesforce Setup interface for the 'Customer' object. The left sidebar contains a navigation menu with options like Details, Fields & Relationships, Page Layouts, Lightning Record Pages, Buttons, Links, and Actions, Compact Layouts, Field Sets, Object Limits, Record Types, Related Lookup Filters, Search Layouts, List View Button Layout, Restriction Rules, Scoping Rules, Triggers, Flow Triggers, and Validation Rules. The main content area is titled 'Fields & Relationships' and shows a table of 19 fields. The table has columns for FIELD LABEL, FIELD NAME, DATA TYPE, CONTROLLING FIELD, and INDEXED. Fields include Budget Amount, City, Created By, Customer, Email, Last Modified By, Owner, Phone Number, postal code, Property Type, State, Street Address, Street Address line 2, and Verified.

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Budget Amount	BudgetAmount_c	Number(18, 0)		
City	City_c	Text(255)		
Created By	CreatedById	Lookup(User)		
Customer	Customer_c	Text(255)		
Customer	Name	Text(80)		✓
Email	Email_c	Email		
Last Modified By	LastModifiedById	Lookup(User)		
Owner	OwnerId	Lookup(User Group)		✓
Phone Number	PhoneNumber_c	Number(18, 0)		
postal code	postal_code_c	Text(255)		
Property Type	Property_Type_c	Text(255)		
State	State_c	Text(255)		
Street Address	Street_Address_c	Text(255)		
Street Address line 2	Street_Address_line_2_c	Text(255)		
Verified	Verified_c	Checkbox		

Customer object schema and field definitions

The screenshot shows the Salesforce Setup interface for the 'Property' object. The left sidebar contains a navigation menu with options like Details, Fields & Relationships, Page Layouts, Lightning Record Pages, Buttons, Links, and Actions, Compact Layouts, Field Sets, Object Limits, Record Types, Related Lookup Filters, Search Layouts, List View Button Layout, Restriction Rules, Scoping Rules, Triggers, Flow Triggers, and Validation Rules. The main content area is titled 'Fields & Relationships' and shows a table of 8 fields. The table has columns for FIELD LABEL, FIELD NAME, DATA TYPE, CONTROLLING FIELD, and INDEXED. Fields include Created By, Last Modified By, Location, Owner, Property Name, Type, and Verified.

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Created By	CreatedById	Lookup(User)		
Last Modified By	LastModifiedById	Lookup(User)		
Location	Location_c	Text(255)		
Owner	OwnerId	Lookup(User Group)		✓
Property	Name	Text(80)		✓
Property Name	Property_Name_c	Text(255)		
Type	Type_c	Text(255)		
Verified	Verified_c	Checkbox		

Property object schema and field definitions


Data Import Wizard

[Help for this page](#) ?

Recent Import Jobs

Status	Object	Records Created	Records Updated	Records Failed	Start Date	Processing Time (ms)
Closed	Property	3	0	0	08-12-2024 02:33	126
Closed	Customer	3	0	0	08-12-2024 02:31	107

[Bulk Api Monitoring](#)



Before you import your data...

[Collapse](#)

Clean up your data import file
You'll have fewer errors to resolve if your data file is clean and free of duplicates. [Watch video](#)

Make sure your field names match Salesforce field names
You'll be required to map your data fields to Salesforce data fields. Data in unmapped fields is not imported. [View a list of Salesforce data fields.](#)

Don't import too many records at once
Using the Data Import Wizard, import up to 50,000 records at a time. Importing too many records can slow down your org for all users, especially during periods of peak usage.

Data Import Wizard used for importing customer and property data and Data quality check report after import.

Milestone 3: Create Role Hierarchy

- **Define Roles:**
 - **Sales Executive:** Manage client interactions.
 - **Sales Manager:** Oversee Sales Executives and manage performance.
 - **Customer:** End-user role with limited access.
- **Create and Assign Roles:**
 - Configure roles in Salesforce and assign them to appropriate users.
- **Review and Test Roles:**
 - Ensure role hierarchy supports the required reporting structures.
 - Test role-based access to verify permissions and data visibility.
- **Documentation:**
 - Document role definitions and reporting structures.

The screenshot shows the Salesforce Setup Roles page. The left sidebar contains navigation links: Setup Home, Service Setup Assistant, Commerce Setup Assistant, Multi-Factor Authentication Assistant, Hyperforce Assistant, Release Updates, Lightning Experience Transition Assistant, Salesforce Mobile App, Lightning Usage, Optimizer, Sales Cloud Everywhere, ADMINISTRATION, Users, Permission Set Groups, Permission Sets, and Profiles. The main content area is titled 'Roles' and displays a table of roles with columns: Action, Role, Reports to, and Report Display Name. The roles are listed in a hierarchy, starting with CEO at the top, followed by Channel Sales Team, COO, Customer, and various support and sales roles. The bottom of the table indicates 'Show me fewer records per list page'.

Action	Role	Reports to	Report Display Name
Edit Del Assign	CEO		CEO
Edit Del Assign	CEO	CEO	CFO
Edit Del Assign	Channel Sales Team	Director, Channel Sales	Channel Sales Team
Edit Del Assign	COO	CEO	COO
Edit Del Assign	Customer	Sales Manager	
Edit Del Assign	Customer Support International	SVP, Customer Service & Support	Customer Support, International
Edit Del Assign	Customer Support North America	SVP, Customer Service & Support	Customer Support, North America
Edit Del Assign	Director Channel Sales	VP, North American Sales	Director, Channel Sales
Edit Del Assign	Director Direct Sales	VP, North American Sales	Director, Direct Sales
Edit Del Assign	Eastern Sales Team	Director, Direct Sales	Eastern Sales Team
Edit Del Assign	Installation & Repair Services	SVP, Customer Service & Support	Installation & Repair Services
Edit Del Assign	Marketing Team	VP, Marketing	Marketing Team
Edit Del Assign	Sales Executive	Sales Representative	
Edit Del Assign	Sales Manager	Sales Executive	
Edit Del Assign	Sales Representative	SVP, Sales & Marketing	
Edit Del Assign	SVP, Customer Service & Support	CEO	SVP, Customer Service & Support
Edit Del Assign	SVP, Human Resources	CEO	SVP, Human Resources
Edit Del Assign	SVP, Sales & Marketing	CEO	SVP, Sales & Marketing
Edit Del Assign	VP, International Sales	SVP, Sales & Marketing	VP, International Sales
Edit Del Assign	VP, Marketing	SVP, Sales & Marketing	VP, Marketing
Edit Del Assign	VP, North American Sales	SVP, Sales & Marketing	VP, North American Sales
Edit Del Assign	Western Sales Team	Director, Direct Sales	Western Sales Team

Role hierarchy showing Sales Executive, Sales Manager, and Customer roles

Milestone 4: Create Property Details App

- **Create App:**
 - Use the Salesforce App Builder to create the “Property Details App.”
 - Include tabs for Customer and Property objects.
- **Customize Layout:**
 - Configure page layouts and object views for usability.
 - Add relevant related lists and quick actions.
- **Testing:**
 - Perform functionality tests to ensure all features work as intended.
 - Gather feedback from potential users and make adjustments.
- **User Training:**
 - Provide training on using the new app, focusing on key functionalities.

The screenshot shows the Property Details App interface. The top navigation bar includes a search bar and a 'Search your Property' dropdown. The main content area is titled 'Customers' and displays a table of customer records. The table has columns: Customer, Custo..., Phone N..., Email, State, Property..., Budget..., Street A..., Street Ad..., City, and postal... The table contains three rows of data. The bottom of the table indicates '3 items • Sorted by Customer • Filtered by All customers • Updated a few seconds ago'.

	Customer	Custo...	Phone N...	Email	State	Property...	Budget...	Street A...	Street Ad...	City	postal...
1	a00dM0000...	Rakesh	7,88,797	rakesh@gm...	Telangana	Residential	40,00,000	gb road	street no 45	Hyderab...	555001
2	a00dM0000...	prakash	5,54,48,855	p@gmail.com	Maharashtra	Commerc...	80,00,000	gachibowli	indira road	mumbai	66000...
3	a00dM0000...	Prajwal	4,54,545	prajwal@gm...	Maharashtra	Rental	25,000	kamdli	kathora	Amravati	444805

App Builder setup for the Property Details App.

Milestone 5: Create Profiles and Users

- **Create Profiles:**
 - Define profiles for **Customer** and **Manager** with appropriate permissions.
- **Create Users:**
 - Set up 4 users and assign them roles and profiles.
- **Profile Permissions:**
 - Configure object and field-level permissions based on profile needs.
- **User Testing:**
 - Test user access and permissions to ensure compliance with defined roles.
- **Training and Support:**
 - Train users on their roles and system access.

The screenshot shows the Salesforce Setup interface. The left sidebar contains navigation links: Setup Home, Service Setup Assistant, Commerce Setup Assistant, Multi-Factor Authentication Assistant, Hyperforce Assistant, Release Updates, Lightning Experience Transition Assistant, Salesforce Mobile App, Lightning Usage, Optimizer, Sales Cloud Everywhere, and ADMINISTRATION. The main content area is titled 'Profiles' and shows the 'Customer' profile. It includes a list of permissions (Login IP Ranges, Apex Class Access, Visualforce Page Access, External Data Source Access, Named Credential Access, External Credential Principal Access, Custom Metadata Type Access, Custom Setting Definitions Access, Flow Access, Service Presence Status Access, and Custom Permissions) and a 'Profile Detail' table.

Profile Detail	
Name	Customer
User License	Salesforce Platform
Description	Custom Profile
Created By	Shobhita Bhatt, 12/08/2024, 8:50 pm
Modified By	Shobhita Bhatt, 12/08/2024, 9:01 pm

Page Layouts: Standard Object Layouts

Profile settings for Customer profile

The screenshot shows the Salesforce Setup interface for the 'Manager' profile. It includes the same left sidebar as the previous screenshot. The main content area is titled 'Profiles' and shows the 'Manager' profile. It includes a list of permissions (Login IP Ranges, Apex Class Access, Visualforce Page Access, External Data Source Access, Named Credential Access, External Credential Principal Access, Custom Metadata Type Access, Custom Setting Definitions Access, Flow Access, Service Presence Status Access, and Custom Permissions) and a 'Profile Detail' table.

Profile Detail	
Name	Manager
User License	Salesforce Platform
Description	Custom Profile
Created By	Shobhita Bhatt, 12/08/2024, 8:56 pm
Modified By	Shobhita Bhatt, 12/08/2024, 9:01 pm

Page Layouts: Standard Object Layouts

Profile settings for Manager profile

The screenshot shows the Salesforce Setup interface for managing users. The main content area is titled "Users" and includes a "View: All Users" dropdown and a "Create New View" link. Below this is a table of users with the following columns: Action, Full Name, Alias, Username, Role, Active, and Profile. The table lists several users, including System Administrator, Chatter Free User, Customer, Customer2, Executive, Manager, User Integration, and User Security. Each user has an "Edit" link next to their name. The table also includes buttons for "New User", "Reset Password(s)", and "Add Multiple Users".

Action	Full Name	Alias	Username	Role	Active	Profile
<input type="checkbox"/> Edit	Bhatt, Shobhita	SBhat	shobhitaibest@dreamworld.com		✓	System Administrator
<input type="checkbox"/> Edit	Chatter Expert	Chatter	chatty.00ddm00000@wgyfuum.96qyz62njaz@chatter.salesforce.com		✓	Chatter Free User
<input type="checkbox"/> Edit	Customer	cust	shobhita3512@gmail.com	Customer	✓	Customer
<input type="checkbox"/> Edit	Customer2	cust	shobhi1@gmail.com	Customer	✓	Customer
<input type="checkbox"/> Edit	Executive	exec	shobhitab3512@gmail.com	Sales Executive	✓	System Administrator
<input type="checkbox"/> Edit	Manager	mana	shobhitab10@gmail.com	Sales Manager	✓	Manager
<input type="checkbox"/> Edit	User Integration	integ	integration@00ddm00000@wgyfuum.com		✓	Analytics Cloud Integration User
<input type="checkbox"/> Edit	User Security	sec	insightssecurity@00ddm00000@wgyfuum.com		✓	Analytics Cloud Security User

User creation and role assignment interface

Milestone 6: Create a Checkbox Field on User Object

- **Create Checkbox Field:**
 - Define a checkbox field named "Verified" on the User object.
- **Update Layouts:**
 - Add the checkbox to relevant user page layouts.
- **Testing:**
 - Verify the functionality of the checkbox and its impact on approval processes.
- **Documentation:**
 - Document the purpose and usage of the checkbox field.

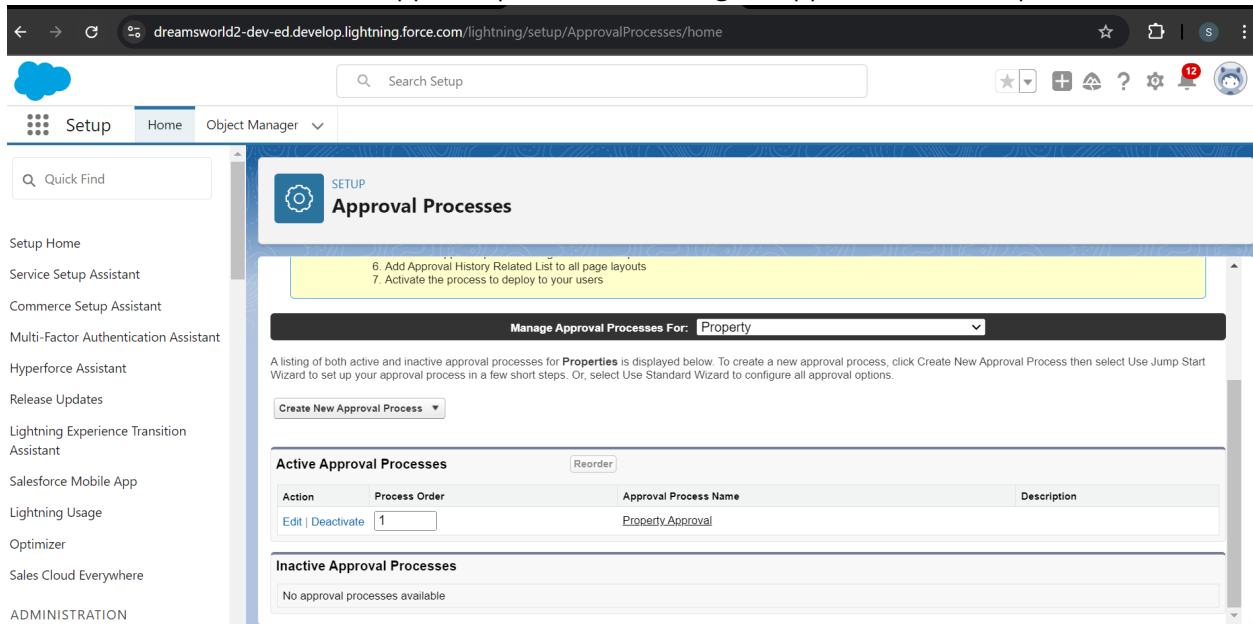
The screenshot shows the Salesforce Setup interface for defining a custom field. The main content area is titled "User Custom Field" and "Verified". It includes a "Back to User Fields" link and a "Validation Rules" link. Below this is a "Custom Field Definition Detail" section with tabs for "Edit", "Set Field-Level Security", "View Field Accessibility", and "Where is this used?". The "Field Information" section shows the field label "Verified", field name "Verified__c", API name "Verified__c", description, help text, data owner, field usage, data sensitivity level, and compliance categorization. The "General Options" section shows the default value "Unchecked". The "Validation Rules" section shows "No validation rules defined".

Field Label	Verified	Object Name	User
Field Name	Verified	Data Type	Checkbox
API Name	Verified__c		
Description			
Help Text			
Data Owner			
Field Usage			
Data Sensitivity Level			
Compliance Categorization			
Created By	Shobhita Bhatt	Modified By	Shobhita Bhatt
Created Date	12/08/2024, 9:01 pm	Modified Date	12/08/2024, 9:01 pm

Creating the checkbox field on the User object.

Milestone 7: Create an Approval Process for Property Object

- **Define Approval Steps:**
 - Create a multi-step approval process for Property records.
- **Configure Entry Criteria:**
 - Set criteria for records that should trigger the approval process.
- **Assign Approvers:**
 - Configure roles and users responsible for each approval step.
- **Testing:**
 - Submit test records to validate the approval workflow.
- **Documentation:**
 - Document the approval process and configure approval email templates.



Setting up the approval process for the Property object.

Setup Home

Service Setup Assistant

Commerce Setup Assistant

Multi-Factor Authentication Assistant

Hyperforce Assistant

Release Updates

Lightning Experience Transition Assistant

Salesforce Mobile App

Lightning Usage

Optimizer

Sales Cloud Everywhere

ADMINISTRATION

Step 2. Specify Entry Criteria

Step 2 of 6

Previous Save Next Cancel

If only certain types of records should enter this approval process, enter that criteria below. For example, only expense reports from employees at headquarters should use this approval process.

Specify Entry Criteria

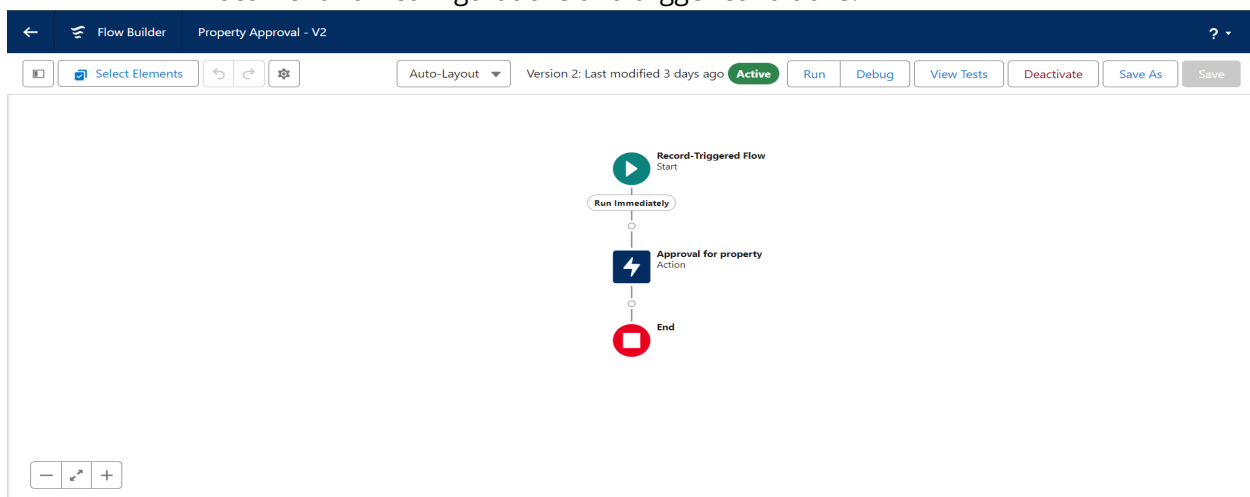
Use this approval process if the following criteria are met:

Field	Operator	Value	
Property: Location	not equal to	blank	AND
Property: Verified	equals	False	AND
--None--	--None--		AND
--None--	--None--		AND
--None--	--None--		

Configuring entry criteria for property records

Milestone 8: Create a Record Trigger Flow to Automate Approval Process

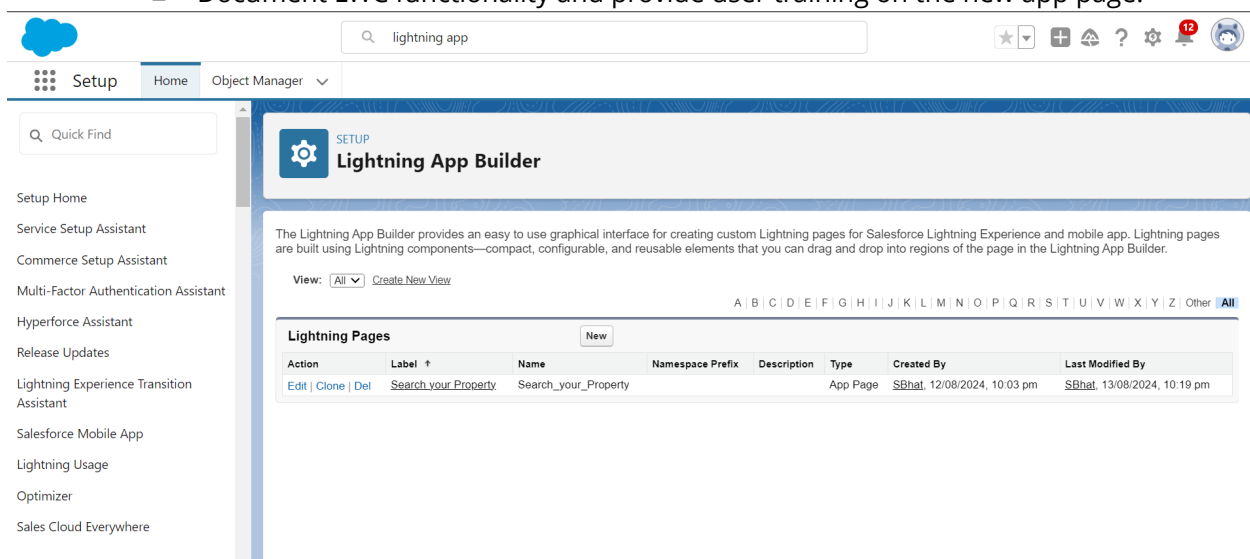
- **Create Flow:**
 - Develop a record-triggered flow in Salesforce Flow Builder to handle automatic submission of Property records for approval.
- **Configure Flow Logic:**
 - Define the flow's trigger conditions and actions.
- **Testing:**
 - Test the flow to ensure it submits records for approval under the correct conditions.
- **Documentation:**
 - Document flow configurations and trigger conditions.



Configuring flow logic for automatic approval submission

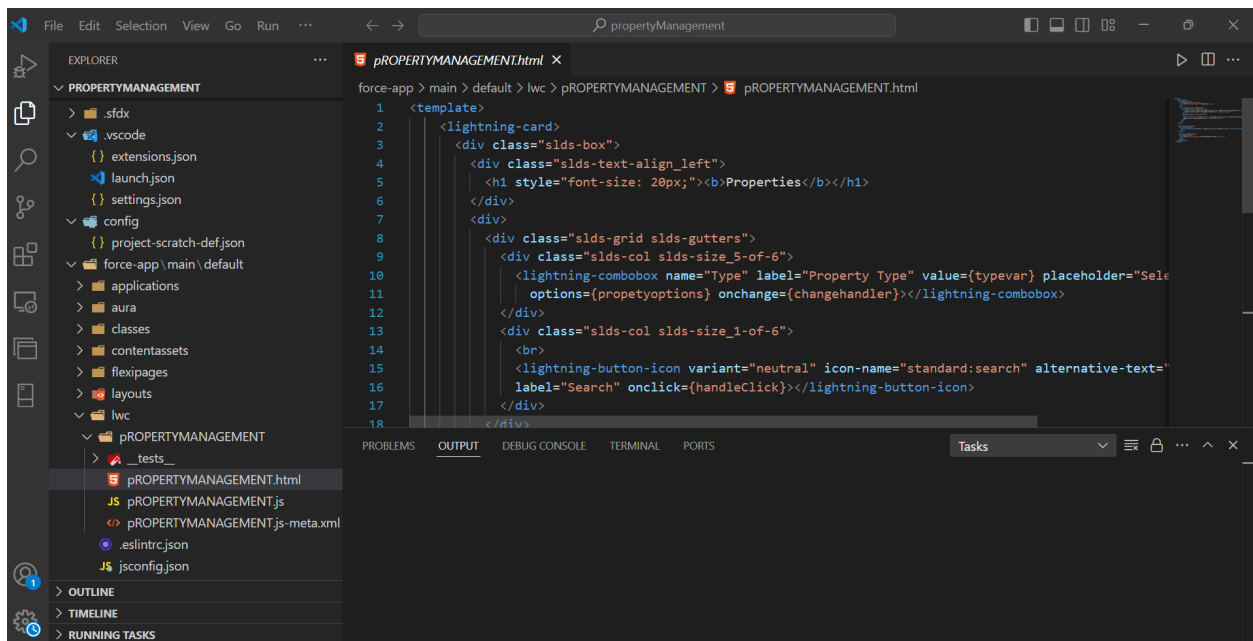
Milestone 9: Create an App Page and LWC Component

- **Develop LWC:**
 - Build a custom Lightning Web Component to display relevant property and customer information.
- **Create App Page:**
 - Use the App Builder to create a new page and add the LWC component.
- **Customize Page Layout:**
 - Adjust the page layout for optimal user experience and data presentation.
- **Testing:**
 - Test the LWC and app page to ensure functionality and performance.
- **Documentation and Training:**
 - Document LWC functionality and provide user training on the new app page.

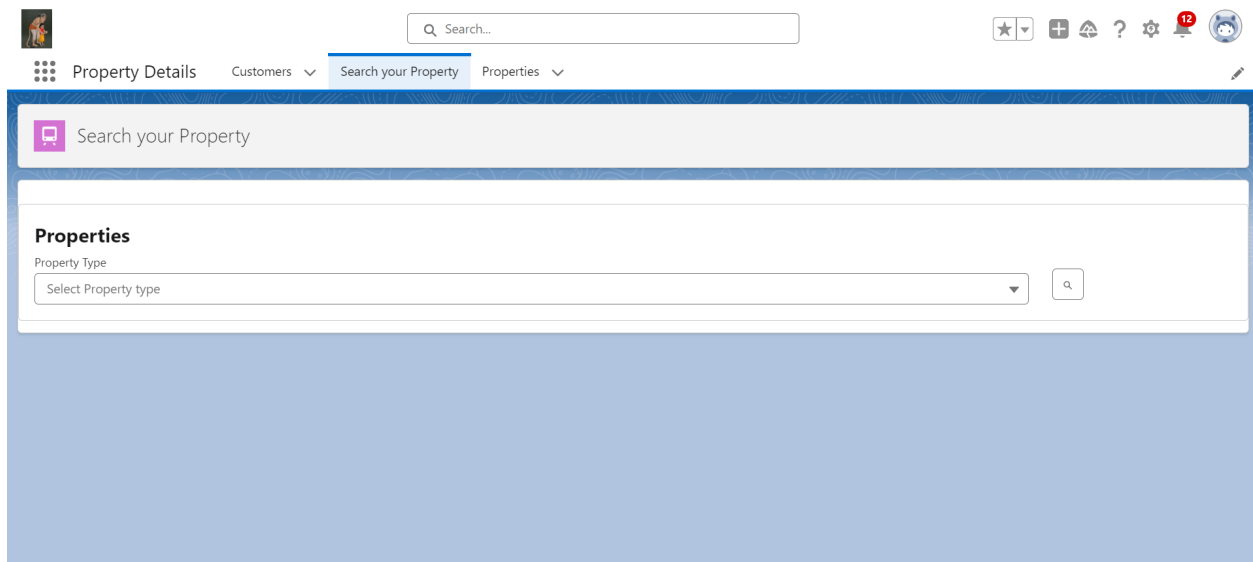


Milestone 10: Assign Apex Class Permissions

- **Identify Apex Classes:**
 - Determine which Apex classes need access based on functionality and user profiles.
- **Assign Permissions:**
 - Update profiles to grant access to specific Apex classes.
- **Testing:**
 - Verify that Apex class permissions work correctly and that users can execute necessary operations.
- **Documentation:**
 - Document permissions and any associated security considerations.



Code preview of the custom Lightning Web Component



Customized layout for the Property Details App page

Testing and Quality Assurance: Testing Strategy

Unit Testing: Verify individual components' functionality.

Integration Testing: Ensure all components and integrations work together.

System Testing: Validate

