

# Travel Request Management System

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## Abstract

The *Travel Request Management System* is a Salesforce-based application designed to simplify and automate the process of submitting, reviewing, and approving employee travel requests within an organization. The project focuses on building scalable solutions using declarative tools (flows, automation), Apex programming, and Lightning UI development.

It provides an efficient way for employees to request business trips, for managers to approve requests, and for admins to monitor travel expenditures — ensuring smooth workflow automation and data visibility across the organization.

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## Objectives

- To automate the process of travel request and approval.
  - To develop a centralized system to manage travel records efficiently.
  - To implement process automation using **Flows** and **Email Alerts**.
  - To design an intuitive **Lightning App** for users to manage requests.
  - To create custom **Reports and Dashboards** for analytics.
  - To integrate with external systems (Web-to-Lead) for data capture.
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## Phases of the Project

### Phase 1: Problem Understanding & Industry Analysis

Studied common pain points in travel request systems—manual tracking, approval delays, and lack of visibility.

Identified Salesforce as the best CRM platform for workflow automation and scalable solutions.

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### Phase 2: Org Setup & Configuration

- Created a new Salesforce Developer Org.
- Set up profiles, permission sets, and users.

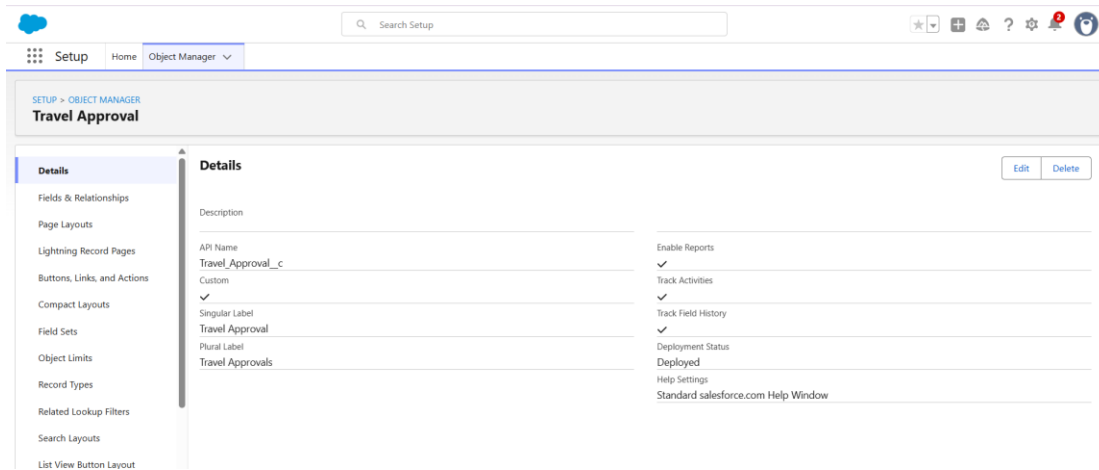
- Enabled necessary features for automation and Lightning App development.

The screenshot shows the 'App Settings' page in the Lightning App Builder. The left sidebar lists 'App Settings' with sub-items: 'App Details & Branding' (selected), 'App Options', 'Utility Items (Desktop Only)', 'Navigation Items', and 'User Profiles'. The main content area is titled 'App Details & Branding' and includes instructions: 'Give your Lightning app a name and description. Upload an image and choose the highlight color for its navigation bar.' It is divided into two sections: 'App Details' and 'App Branding'. In 'App Details', there are input fields for 'App Name' (containing 'Travel Approval App'), 'Developer Name' (containing 'Travel\_Approval\_App'), and a 'Description' field with placeholder text 'Enter a description...'. In 'App Branding', there is an 'Image' field with a blue airplane icon, a 'Primary Color Hex Value' field with '#0070C2', and a 'Clear' button. Below these is an 'Org Theme Options' checkbox labeled 'Use the app's image and color instead of the org's custom theme', which is currently unchecked. At the bottom, there is an 'App Launcher Preview' showing the app icon and name, and 'Cancel' and 'Save' buttons.

### Phase 3: Data Modeling & Relationships

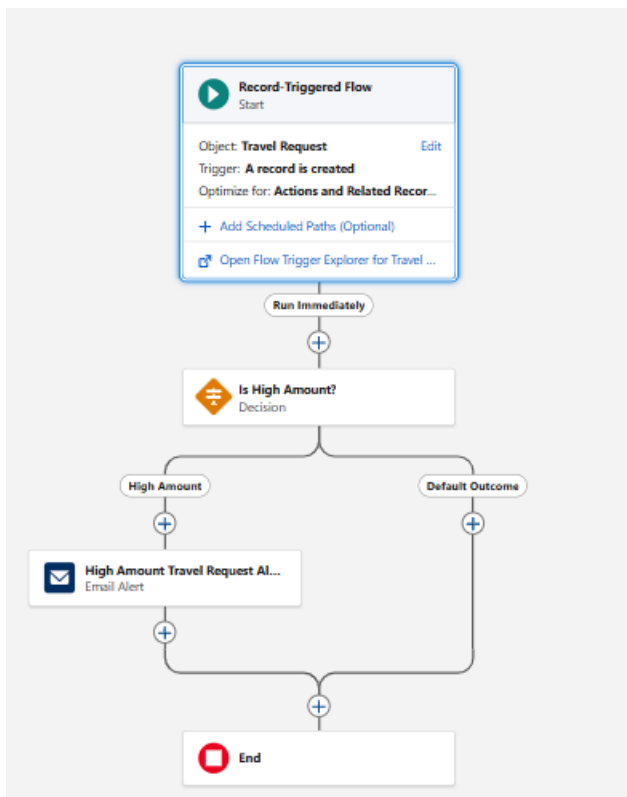
- Created two main custom objects:
  - **Travel\_Request\_\_c** – stores employee travel details (Destination, Start Date, Amount, etc.)
  - **Travel\_Approval\_\_c** – stores approval records linked to each request.
- Established **Lookup Relationship** between Travel Approval and Travel Request.

The screenshot shows the Salesforce Setup page with the 'Object Manager' tab selected. The breadcrumb trail is 'SETUP > OBJECT MANAGER'. The main heading is 'Travel Request'. On the left, a sidebar lists various configuration options: 'Details' (selected), 'Fields & Relationships', 'Page Layouts', 'Lightning Record Pages', 'Buttons, Links, and Actions', 'Compact Layouts', 'Field Sets', 'Object Limits', 'Record Types', 'Related Lookup Filters', 'Restriction Rules', and 'Sharing Rules'. The 'Details' section is expanded, showing a table of configuration items. The table has two columns: 'API Name' and 'Description'. The first row is 'Travel\_Request\_\_c' with a description of 'Custom'. The second row is 'Travel Request' with a description of 'Singular Label'. The third row is 'Travel Requests' with a description of 'Plural Label'. On the right side of the 'Details' section, there are several checkboxes: 'Enable Reports', 'Track Activities', 'Track Field History', 'Deployment Status', 'Help Settings', and 'Standard salesforce.com Help Window'. At the top right of the 'Details' section, there are 'Edit' and 'Delete' buttons.



#### Phase 4: Process Automation (Admin)

- Created **Flows** to automate approvals for high-value travel requests (> ₹10,000).
- Configured **Email Alerts** to notify managers when high-amount requests are submitted.
- Added **Decision elements** in Flow for dynamic logic handling.



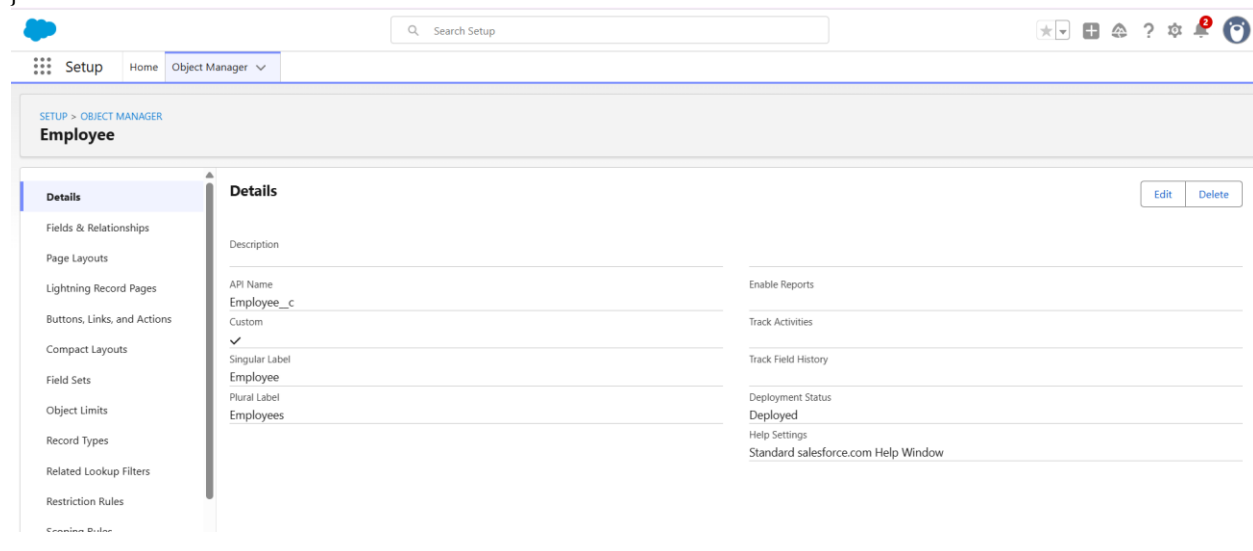
## Phase 5: Apex Programming (Developer)

Developed a **trigger** to automatically create a related approval record when a new travel request is inserted.

```
trigger TravelRequestTrigger on Travel_Request__c (after insert) {
    List<Travel_Approval__c> approvalsToCreate = new List<Travel_Approval__c>();

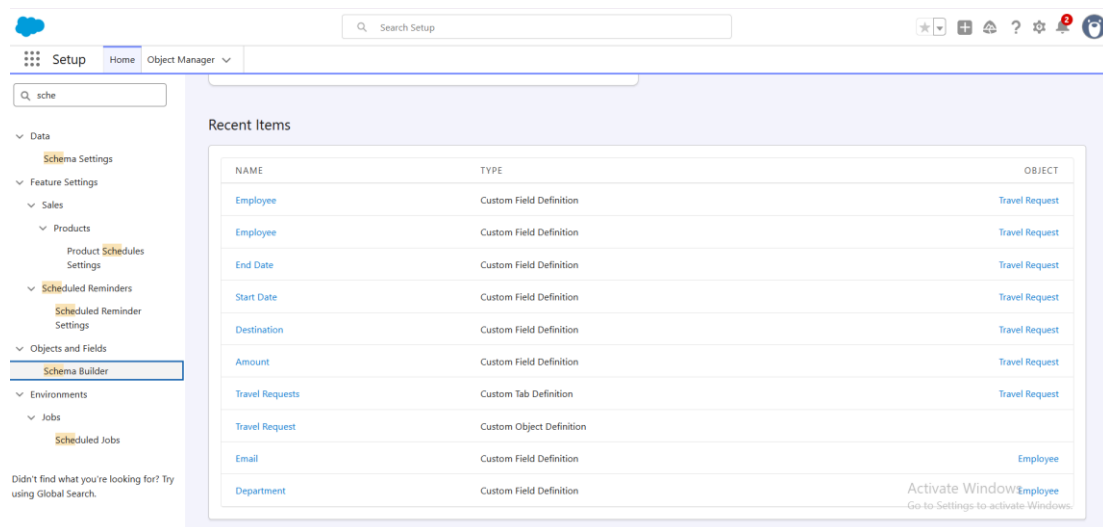
    for (Travel_Request__c req : Trigger.new) {
        if (req.Amount__c > 10000) {
            approvalsToCreate.add(new Travel_Approval__c(
                Related_Travel_Request__c = req.Id,
                Status__c = 'Pending Approval'
            ));
        }
    }

    if (!approvalsToCreate.isEmpty()) {
        insert approvalsToCreate;
    }
}
```



## Phase 6: User Interface Development

- Built a **custom Lightning App** named “Travel Management.”
- Added navigation items: *Travel Requests*, *Travel Approvals*, *Reports*, and *Dashboards*.
- Configured record pages and compact layouts for better usability.



## Phase 7: Integration & External Access

- Implemented **Web-to-Lead** form integration to capture data directly from an external website.
- Hosted HTML form that sends lead information into Salesforce automatically.

The screenshot shows a web browser window with the title 'Web-to-Lead Form'. The address bar shows the file path 'C:/Users/home/Downloads/webtolead.html'. The form is titled 'Salesforce Web-to-Lead Form' and contains the following fields:

First Name:

Last Name:

Email:

Company:

City:

State/Province:

## Phase 8: Data Management & Deployment

- Imported test data using **Data Import Wizard**.
- Validated data integrity and relationships between objects.
- Deployed the flow and trigger successfully in the same org.

Search Setup

Setup Home Object Manager

Object Manager

Travel Request Validation Rule

Back to Travel Request

Help for this Page

Validation Rule Detail

Rule Name

Amount\_Must\_Be\_Positive

Active

✓

Error Condition Formula

Amount\_\_C <= 0

Error Location

Top of Page

Error Message

Amount must be greater than zero

Modified By

SHAIK SHAFIAFRIN 22BCE9523, 19/10/2025, 8:25 pm

Description

Created By

SHAIK SHAFIAFRIN 22BCE9523, 19/10/2025, 8:25 pm

Edit

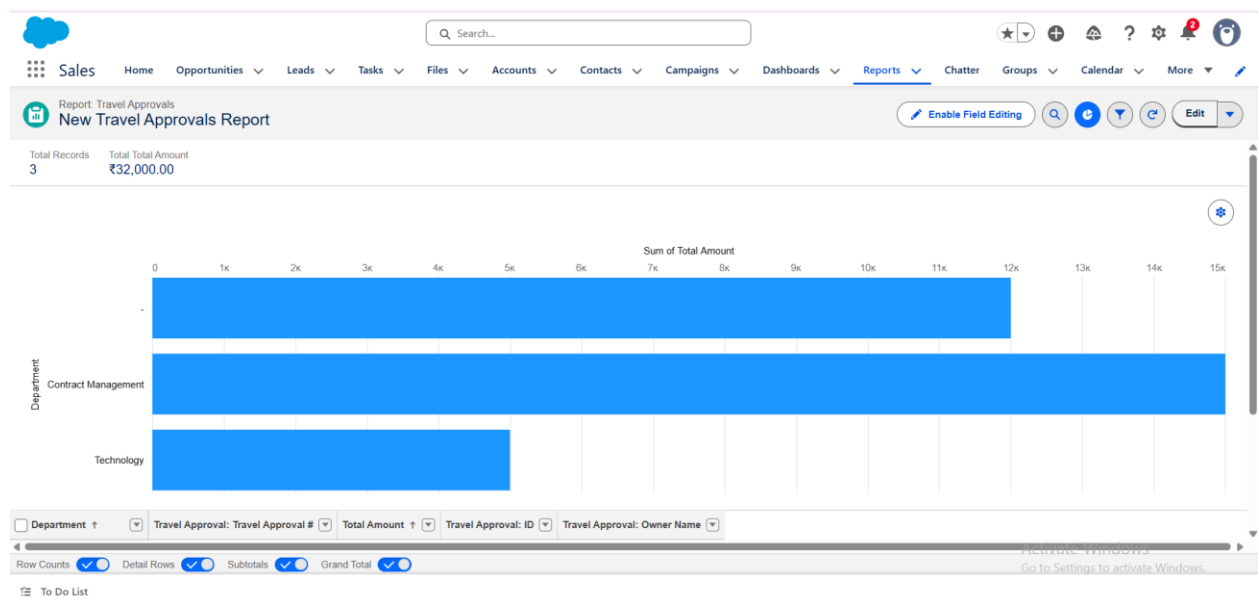
Clone


Edit

Clone

## Phase 9: Reporting, Dashboards & Security Review

- Created **Reports** to display total requests by employee and amount.
- Built a **Dashboard** with visual charts for travel budget analysis.
- Reviewed sharing rules and field-level security for sensitive data





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🔔
👤

Sales
Home
Opportunities
Leads
Tasks
Files
Accounts
Contacts
Campaigns
Dashboards
Reports
Chatter
Groups
Calendar
More

Report: Travel Approvals  
**New Travel Approvals Report**
Enable Field Editing
🔍
Add Chart
📄
🔄
Edit

Total Records  
3
Total Total Amount  
₹32,000.00

	Travel Approval: Travel Approval #	Total Amount	Travel Approval: ID	Travel Approval: Owner Name	Department
1	TA-00002	₹15,000.00	a01dM0000391QJV	SHAIK SHAFIAFRIN 22BCE9523	Contract Management
2	TA-00001	₹5,000.00	a01dM000038kCXt	SHAIK SHAFIAFRIN 22BCE9523	Technology
3	TA-00008	₹12,000.00	a01dM0000397Ko5	SHAIK SHAFIAFRIN 22BCE9523	-
4		₹32,000.00			

Phase 10: Final Presentation & Demo

<https://drive.google.com/file/d/1rs2URxzM0OSJ1ATIIQP3XOdKyJG6XIYf/view?usp=sharing>

Conclusion

The *Travel Request Management System* successfully demonstrates how Salesforce can be used to automate business processes using declarative and programmatic tools. It enables seamless request tracking, automated approvals, and insightful analytics — making it a complete end-to-end enterprise solution.