

A CRM APPLICATION ON E-COMMERCE ACTIVITIES

NAAN MUDHALVAN PROJECT REPORT

Submitted by

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BONAFIDE CERTIFICATE

Certified that this project report titled “CRM APPLICATION OF E-COMMERCE ACTIVITIES” is the Bonafide work of “NAVEENA R (620120104069), PAVITHRA K (620120104073), SIVAPRIYA B (620120104092), TAMILVANI S (620120104104)” who carried out the project work under my supervision.

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LIST OF ABBREVIATION

CRM	Customer Relationship Management
UI	User Interface
UX	User Experience
OWD	Org – Wide Default
CSV	Comma – Separated Values
API	Application Programming Interface

CHAPTER – 1

PROJECT SPECIFICATION

1.1 Project Goal

The goal of developing a CRM application for E-commerce activities is to create a comprehensive system that helps businesses effectively manage their customer relationships, sales, and marketing efforts within the context of E-commerce. Centralize customer data, including contact information, purchase history, and communication preferences. Segment customers based on various criteria for targeted marketing and personalized interactions. Provide a 360-degree view of each customer to improve engagement and customer service.

Integrate with E-commerce platforms to manage orders, inventory, and product catalogs. Streamline order processing and fulfilment. Ensure accurate product availability information. Integrate with various data sources, including E-commerce platforms, payment gateways, and thirdparty applications. Ensure real-time data synchronization to keep information up to date. Enable mobile access to the CRM for users on the go.

The ultimate goal of a CRM application for E-commerce activities is to improve customer relationships, drive sales growth, and enhance the overall E-commerce experience for both customers and the business itself. The CRM project should contribute to cost savings, increased sales, and improved customer satisfaction, resulting in a positive return on investment.

1.2 Project Scope

The scope of a CRM application for E-commerce activities can be quite extensive, as it involves managing various aspects of customer interactions, sales, marketing, and service within the context of an E-commerce business. Design and execute marketing campaigns, including email marketing, social media marketing, and content marketing. Integrate with E-commerce platforms to manage orders, inventory levels, and product catalogs. Monitor order status and shipping information. Provide real-time product availability information to customers. Integrate with E-commerce platforms, payment gateways, accounting systems, and third-party applications.

Design the system to scale as the business grows. Accommodate an increasing number of customers, products, and transactions. Provide training and documentation for users to effectively use the CRM. Encourage user adoption through user-friendly interfaces. Collect feedback from users to identify areas for improvement. Regularly update and enhance the CRM based on user input and evolving business needs.

The scope of a CRM application for E-commerce activities should be well-defined, but it can evolve as the business grows and adapts to changing customer needs and market dynamics. A well-planned and executed CRM project can lead to improved customer relationships, increased sales, and enhanced customer satisfaction in the E-commerce sector.

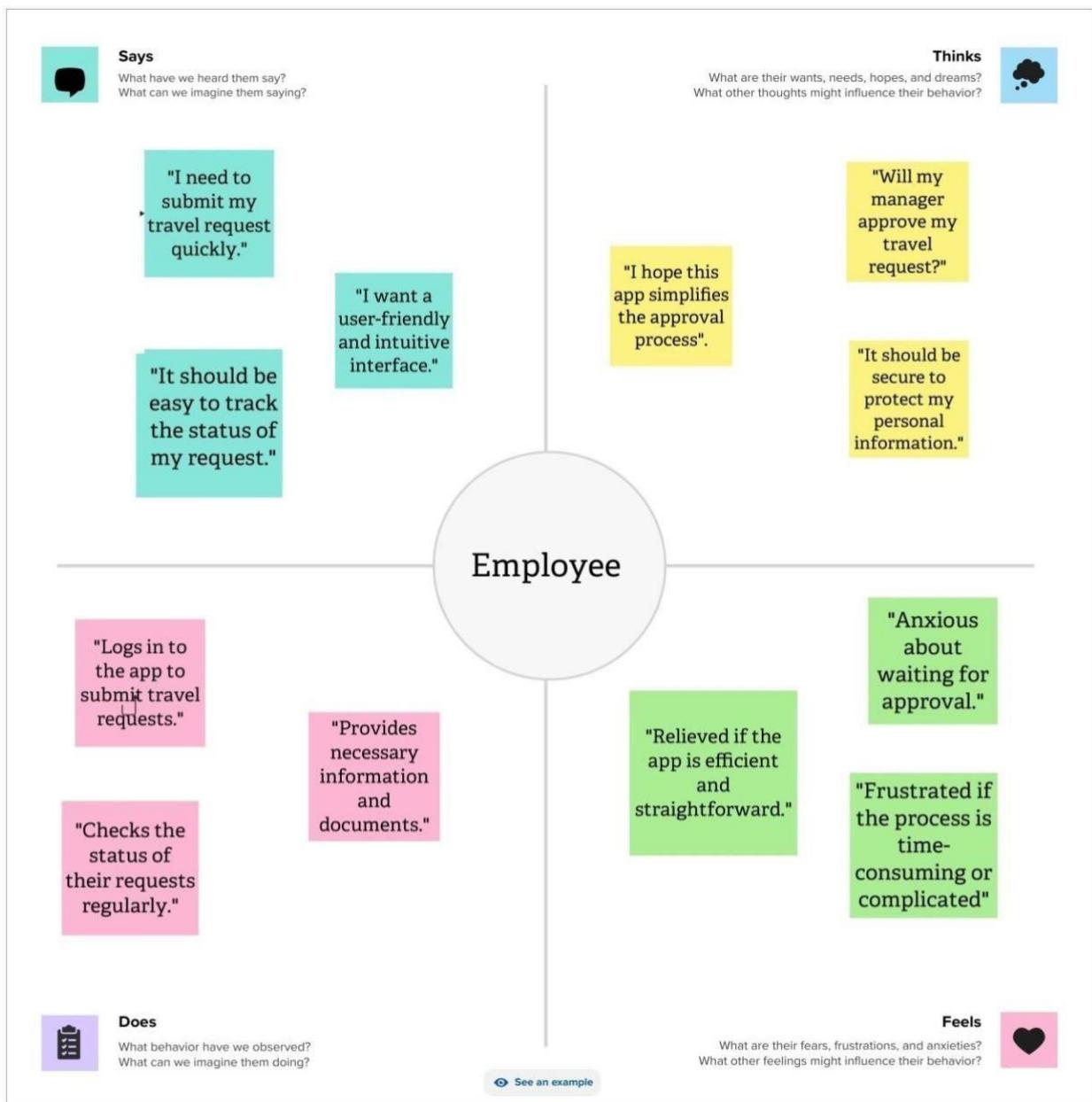
1.3 Problem Statement Definition

I am EMPLOYEE	I'm trying to I am trying to streamline and simplify the process of submitting, tracking, and approving travel requests to ensure a smoother travel experience.	But But the current process is manual, time-consuming, and lacks transparency, resulting in delays and confusion.	Because Because this inefficiency in the travel approval process creates frustration, adds unnecessary administrative work, and can lead to financial discrepancies.	Which makes me feel Which makes me feel frustrated, anxious about travel plans, and often uncertain about the status of my request, ultimately affecting my overall job satisfaction and productivity.
Problem Statement (PS)				
I am	I'm trying to	But	Because	Which make me feel

PS	Employee	I am trying to streamline and simplify the process of submitting, and providing e-commerce requests to ensure a smoother activities experience	But the current process is manual, timeconsuming, and lacks transparency, resulting in delays and confusion.	Because this inefficiency in the product delivery process creates frustration, adds unnecessary administrative work, and can lead to financial discrepancies	Which makes me feel frustrated, anxious about ecommerce plans, and often uncertain about the status of my request, ultimately affecting my overall job satisfaction and productivity
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1.4 Empathy Map Canvas

An empathy map is a simple, easy-to-digest visual that captures knowledge about a user's behavior and attitudes.



1.5 Ideation & Brainstorming

Brainstorming provides a free and open environment that encourages everyone within a team to participate in the creative thinking process that

leads to problem solving. Prioritizing volume over value, out-of-the-box ideas are welcome and built upon, and all participants are encouraged to collaborate, helping each other develop a rich amount of creative solutions.

Step-1: Team Gathering, Collaboration and Select the Problem Statement:

The screenshot shows a digital template for a team gathering and collaboration session. The template is divided into several sections:

- Brainstorm & idea prioritization**: A section for team members to contribute ideas. It includes a lightbulb icon and a note: "Use this template in your own brainstorming sessions so your team can unleash their imagination and start shaping concepts even if you're not sitting in the same room." Below this are preparation and collaboration times: "10 minutes to prepare", "1 hour to collaborate", and "3-8 people recommended".
- Define your problem statement**: A section with a lightbulb icon and a note: "What problems are you trying to solve? Frame your problem as a How Might We statement. This will be the focus of your brainstorm." It includes a timer icon and "5 minutes".
- Before you collaborate**: A section with a lightbulb icon and a note: "A little bit of preparation goes a long way with this session. Here's what you need to do to get going." It includes a timer icon and "10 minutes".
- Key rules of brainstorming**: A section with a lightbulb icon and a note: "To run an smooth and productive session". It lists six rules:
 - Stay in topic.
 - Encourage wild ideas.
 - Offer judgment.
 - Listen to others.
 - Go for volume.
 - If possible, be visual.

At the bottom of the template, there is a small note: "Need some inspiration? Check out our library of templates and ideas for your next session." followed by a "Get started" button.

1 of 7

Step-2: Brainstorm, Idea Listing and Grouping:

2

Brainstorm
Write down any ideas that come to mind that address your problem statement.

⌚ 10 minutes

Person 1

- User-Friendly Dashboard:** Create an intuitive dashboard for employees to submit travel requests and track their status.

Person 2

- Manager Approval Workflow:** Implement a workflow that allows managers to review and approve travel requests easily.

Person 3

- Notification System:** Implement a notification system to keep employees informed about the status of their travel requests.

Person 4

- Real-Time Currency Conversion:** Provide a currency conversion feature to help employees manage expenses in different currencies.

TIP
You can select a sticky note and tilt the pen or brush to sketch/crop the chart/drawing!

Group ideas
Take turns sharing your ideas while clustering similar or related notes as you go. Once all sticky notes have been grouped, give each cluster a sentence-like label. If a cluster is bigger than six sticky notes, try and see if you can break it up into smaller sub-groups.

⌚ 20 minutes

TIP
Add customizable tags to sticky notes to make it easier to find, organize, and categorize important ideas as themes within your mind.

Manager Approval
Workflow: Implement a streamlined workflow that allows employees to submit travel requests, and managers to easily review and approve them within the application. This ensures a quick and efficient approval process.

Expense Management and Reporting:

- Build a comprehensive expense management system that allows employees to submit and track expenses related to their trips. Include features for attaching receipts and generating expense reports, simplifying financial aspects of corporate travel.

Step-3: Idea Prioritization:

4

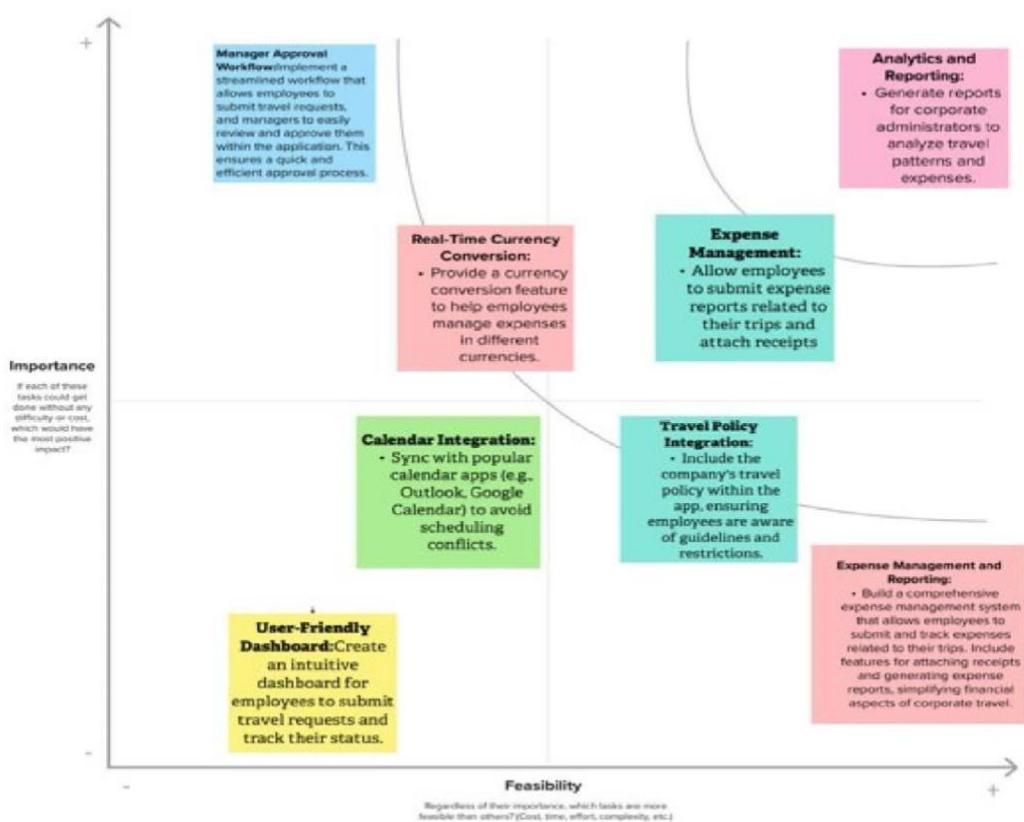
Prioritize

Your team should all be on the same page about what's important moving forward. Place your ideas on this grid to determine which ideas are important and which are feasible.

⌚ 20 minutes

TIP

Participants can use their cursor to point at where sticky notes should go on the grid. The facilitator can confirm the spot by using the laser pointer holding the **H** key on the keyboard.



1.6 Proposed Solution

S. No	Parameter	Description
1.	Problem Statement (Problem to be solved)	In the highly competitive E-commerce industry, businesses face the challenge of effectively managing customer relationships, sales, marketing, and service operations. As Ecommerce activities continue to grow and customer expectations rise, there is a pressing need for a comprehensive CRM (Customer Relationship Management) application tailored to the unique demands of this sector.
2.	Idea / Solution description	This CRM application will address the unique challenges faced by E-commerce companies in managing customer relationships, sales, marketing, and service operations. Data-Driven Decision-Making Detailed reporting and analytics provide valuable insights into customer behavior and marketing campaign performance. Businesses can better understand and engage with their customers, leading to improved customer loyalty and retention.
3.	Novelty / Uniqueness	What sets our solution apart is the innovative use of Salesforce, a highly customizable and powerful platform, to streamline corporate travel management. The automation of approval workflows and integration with external systems will significantly reduce manual work and errors. The mobile app component will provide users with the flexibility and convenience of on-the-go access. Furthermore, the incorporation of robust reporting and analytics tools will enable datadriven decision-making and offer insights into travel expenses, setting our solution apart from conventional methods.

4.	Social Impact / Customer Satisfaction	Ensuring compliance with data protection regulations, such as GDPR, demonstrates a commitment to protecting customer data. This safeguards customer privacy and sets a positive example for data handling practices in the industry. A well-managed CRM system can help optimize supply chains and reduce unnecessary waste in E-commerce operations. This contributes to sustainability and reduced environmental impact.
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1.7 Functional & Technical Requirements

1.7.1 Functional Requirements

FR No.	Functional Requirement (Epic)	Sub Requirement (Story / Sub-Task)
FR 1	Customer Management	<p>Customer Profiles: Create and maintain detailed customer profiles with information such as contact details, purchase history, and communication preferences.</p> <p>Lead Management: Capture and manage leads from multiple sources, including website inquiries, email, and social media.</p> <p>Contact and Account Management: Track individual contacts and accounts associated with customers, including roles and affiliations.</p>

FR 2	Sales Management	<p>Opportunity Tracking: Manage sales opportunities, including stages, close dates, and sales team assignments.</p> <p>Sales Pipeline: Visualize and report on the sales pipeline, allowing for revenue forecasting and monitoring sales performance.</p> <p>Quote and Proposal Generation: Generate quotes, proposals, and sales documents within the CRM application.</p>
FR 3	Market Automation	<p>Customer Segmentation: Segment the customer base based on demographics, purchase history, and behavior for targeted marketing.</p> <p>Lead Nurturing: Automate lead nurturing processes, such as email sequences, to move leads through the sales funnel.</p> <p>Email Marketing: Manage email marketing campaigns, including email templates, scheduling, and tracking</p>
FR 4	Order and Inventory Integration	<p>E-commerce Platform Integration: Integrate with E-commerce platforms to sync order data, inventory levels, and product catalogs in real-time.</p> <p>Order Tracking: Provide real-time order tracking for customers to monitor the status of their orders.</p> <p>Inventory Management: Ensure accurate product availability information, prevent overselling, and track stock levels.</p>

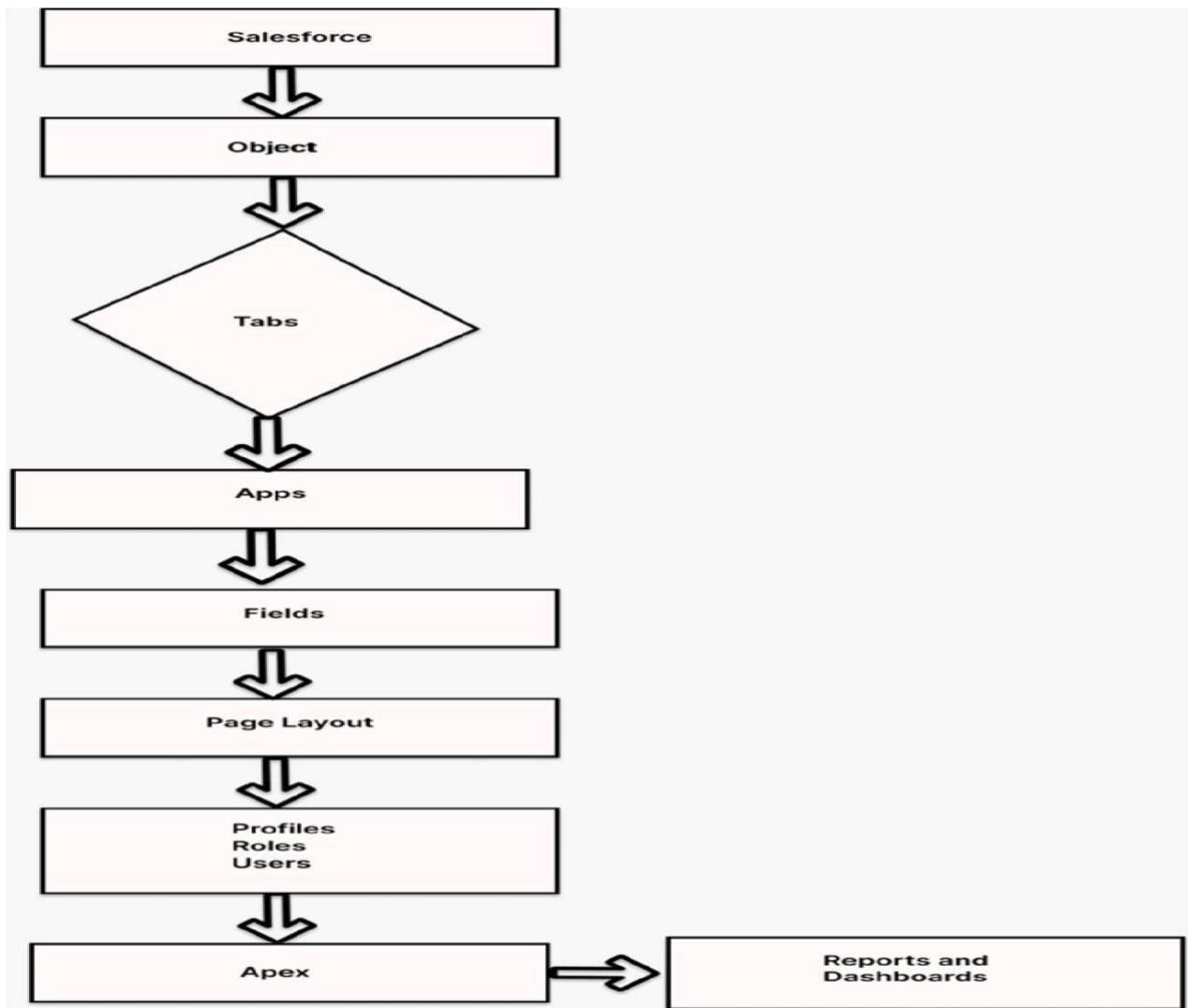
FR 5	Reporting and Analytics	<p>Report Generation: Create custom reports and dashboards to track sales performance, customer behavior, and marketing campaign effectiveness.</p> <p>Key Performance Indicators (KPIs): Define and monitor KPIs to make data-driven decisions and assess the health of the business.</p> <p>Analytics: Implement analytics features for advanced insights into customer behavior and trends.</p>
FR 6	User Access and Permissions	<p>User Roles and Profiles: Define user roles and profiles with specific permissions to control data access and system functionality.</p>

1.7.2 Technical Requirements

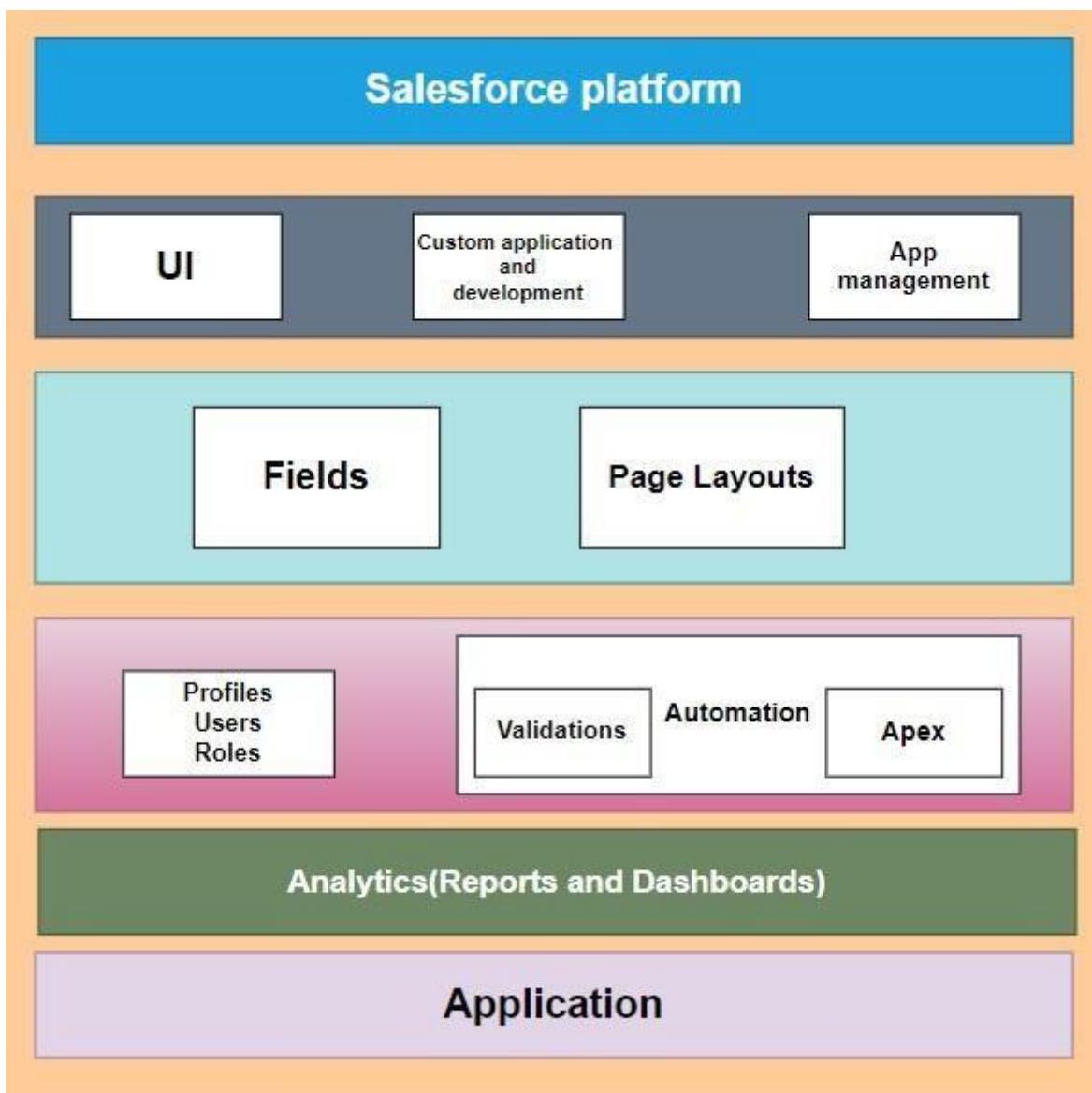
TR No.	Technical Requirement	Description
TR-1	Salesforce Environment	Utilize Salesforce's Enterprise or Unlimited edition to ensure scalability and access to advanced features.
TR-2	Development language	Develop using Salesforce's proprietary programming language, Apex, for server side logic.
TR-3	Security	<ul style="list-style-type: none"> Implement role-based access control (RBAC) to control who can access and modify data. Encrypt sensitive data both in transit and at rest. Utilize Salesforce Shield for enhanced security, including event monitoring and field-level encryption.

TR-4	Integration	<ul style="list-style-type: none"> • Use REST and SOAP APIs for integration with external systems, such as finance and expense management tools. • Implement Single Sign-On (SSO) solutions for seamless and secure access.
TR-5	Customization	Allow administrators to customize and configure the application, including approval workflows, fields, and user profiles.
TR-6	Mobile Accessibility	<ul style="list-style-type: none"> • Ensure that the application is accessible via the Salesforce mobile app for on-the go request submission and tracking. • Develop a custom mobile app using Salesforce Mobile SDK for more tailored mobile functionality.

1.8 Project Road Map



1.8.2 Technical Architecture

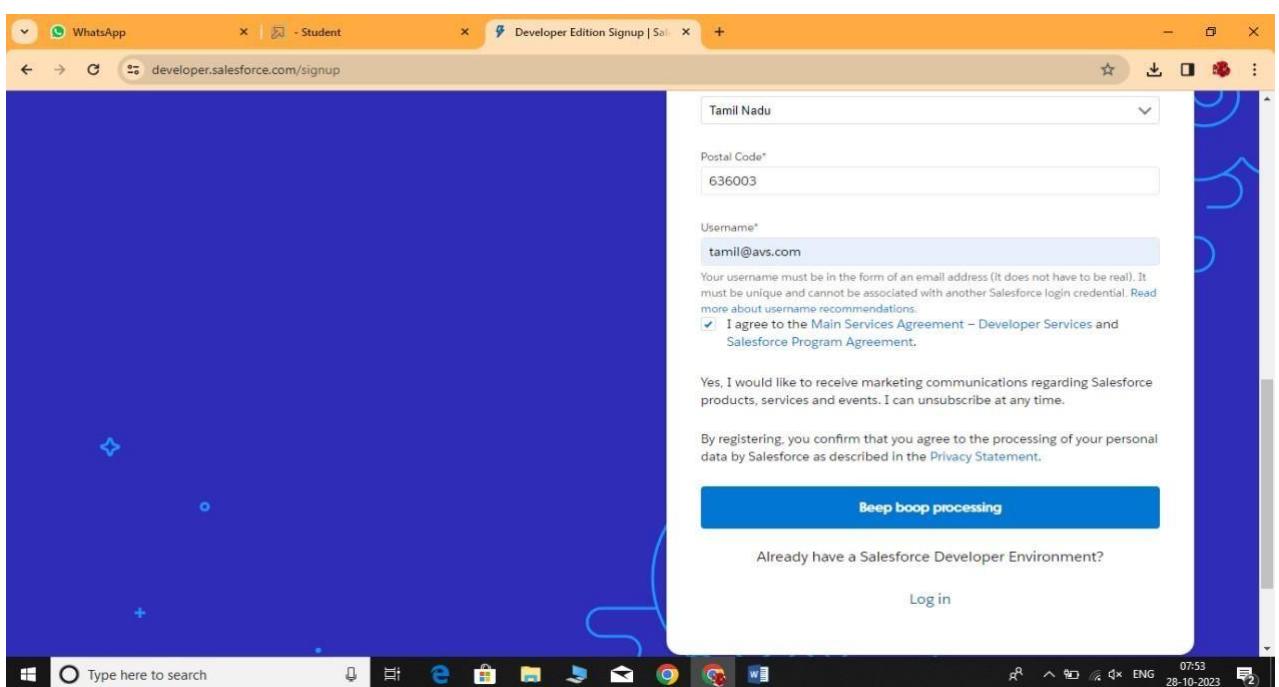
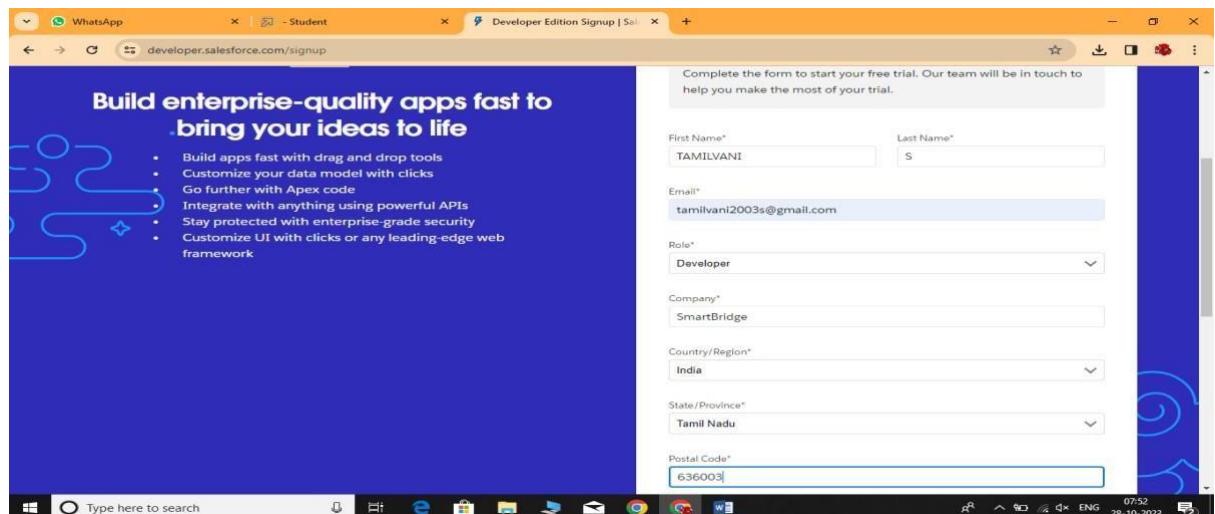


CHAPTER-2

PREPARATION DATAMODELING

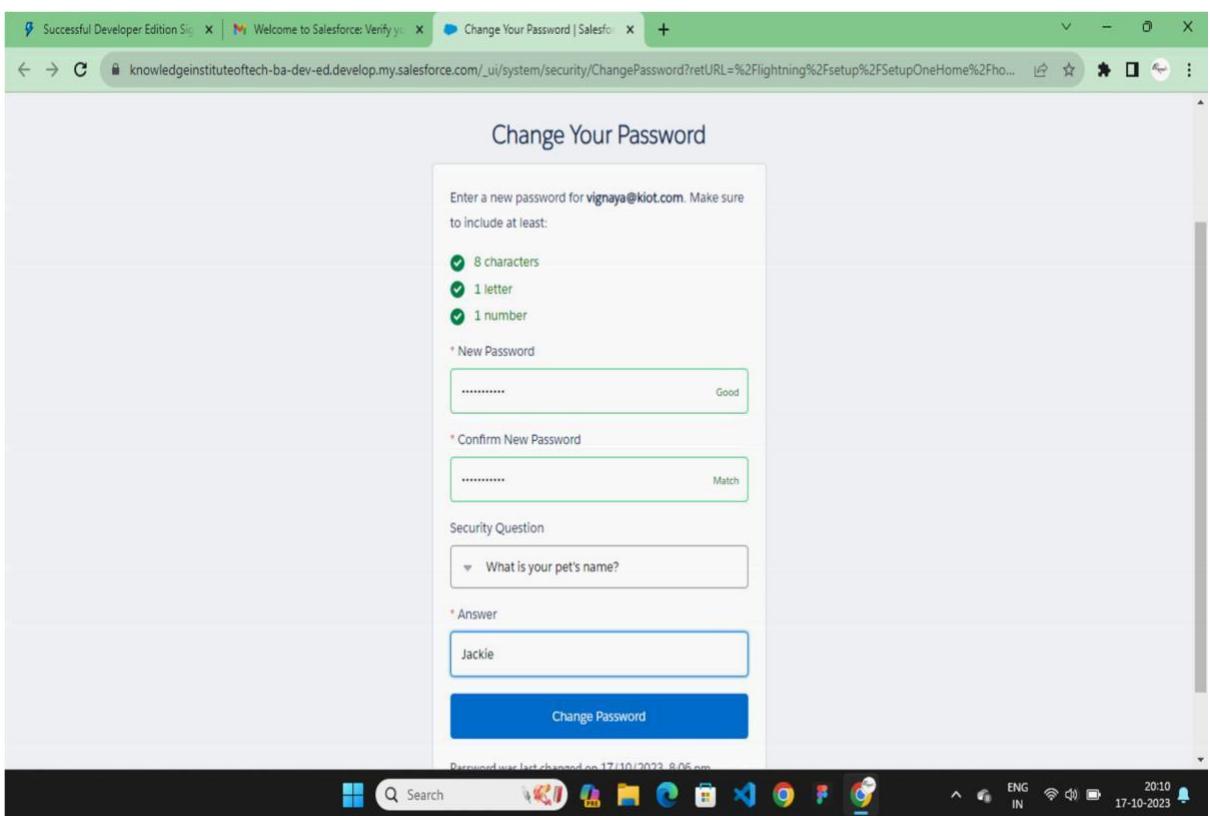
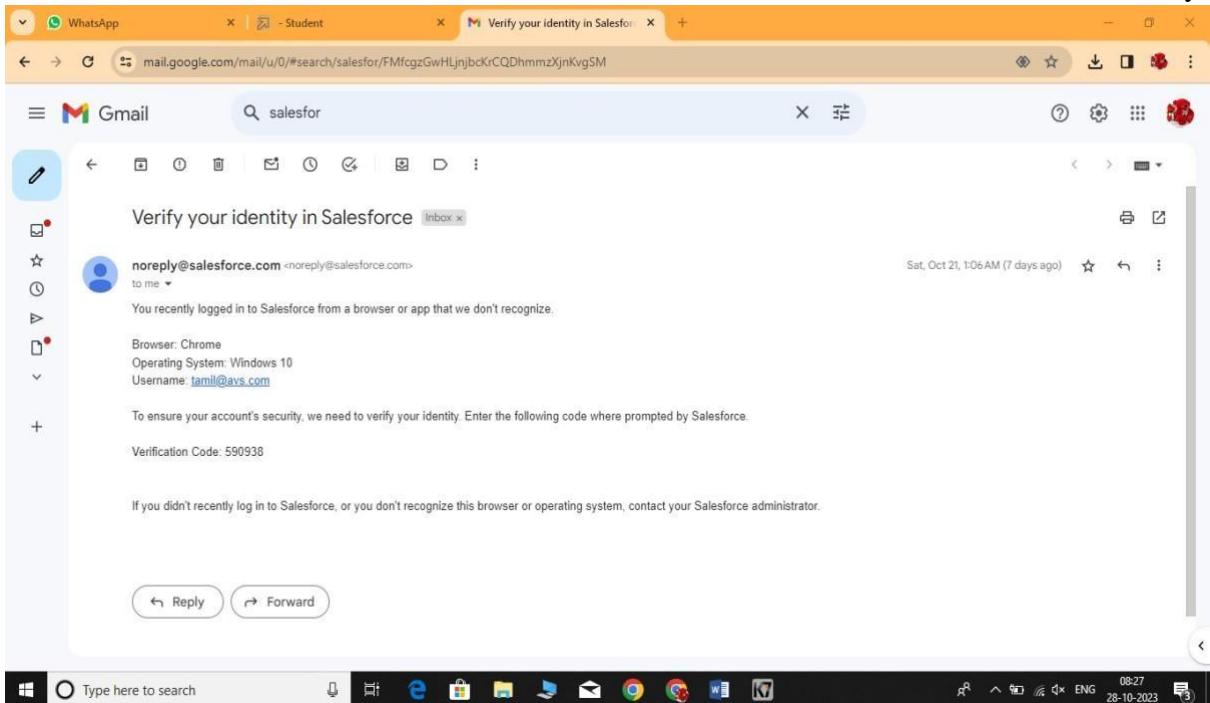
2.1 Salesforce Developer Org

In Salesforce, a Developer Sign Up or Developer Edition is a special type of Salesforce environment that is primarily used for development, testing, and learning purposes.



Account Activation

Activation tracks information about devices from which users have verified their identity.



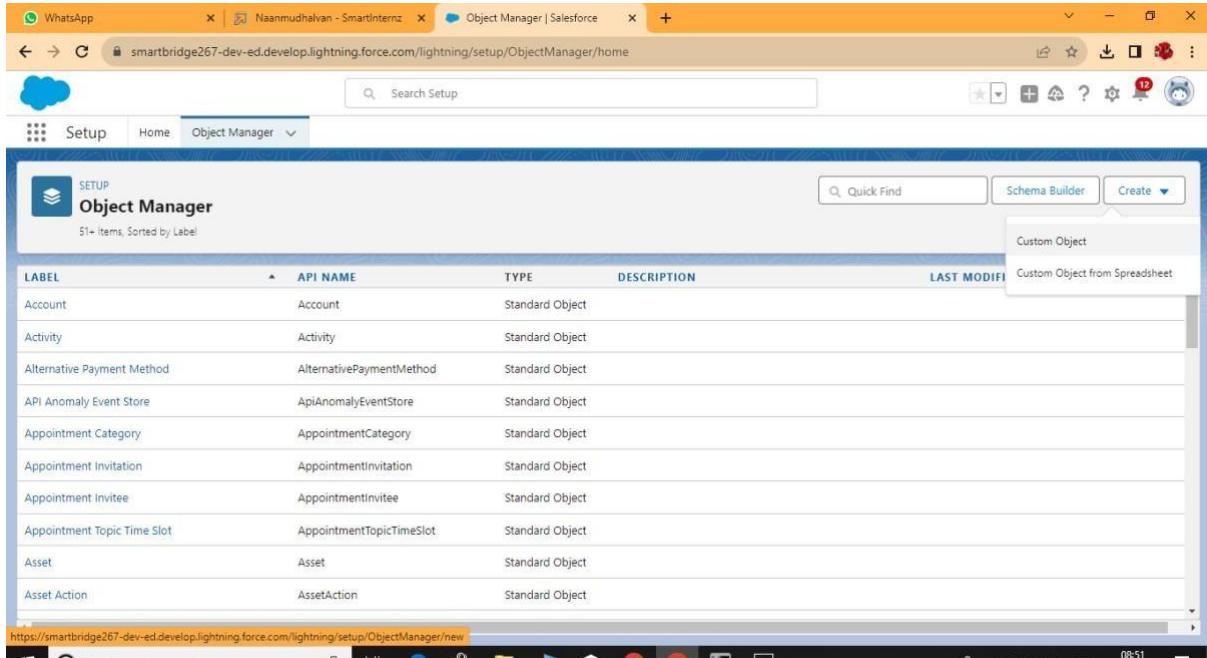
2.2 Custom Object Creation & Tabs

Custom Object Creation

Objects are containers for your information, but they also give you special functionality.

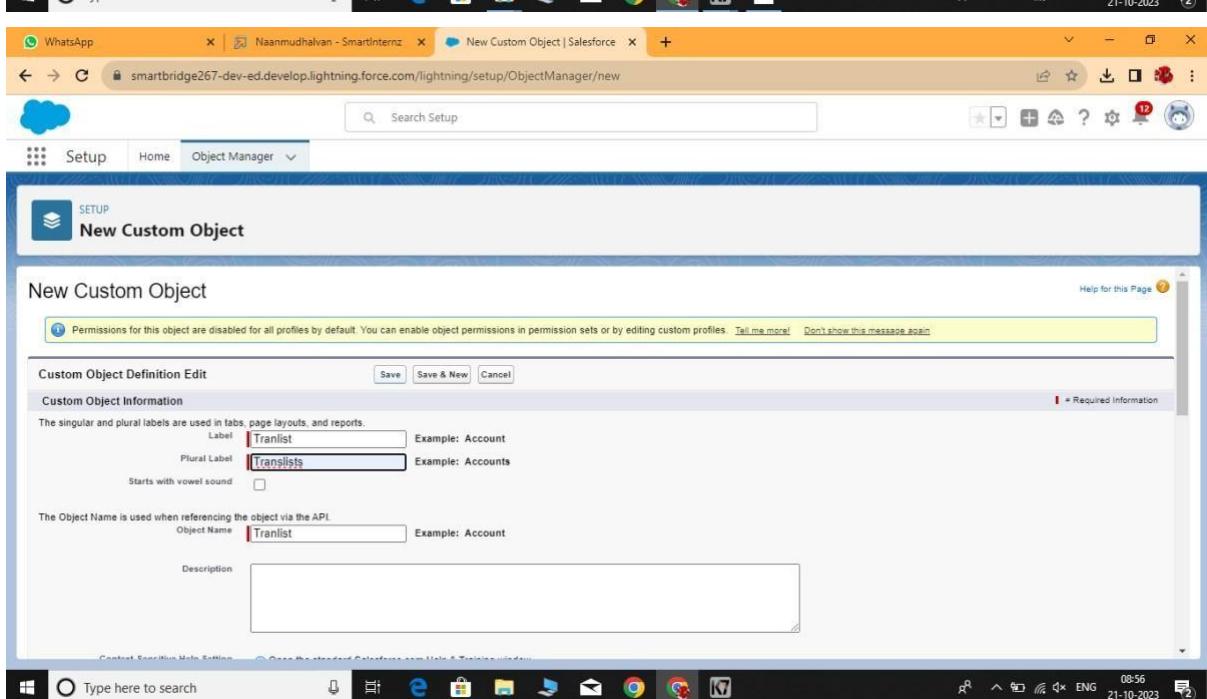
Custom objects are created to store information that's specific to your company or industry.

Custom Objects in CRM App :

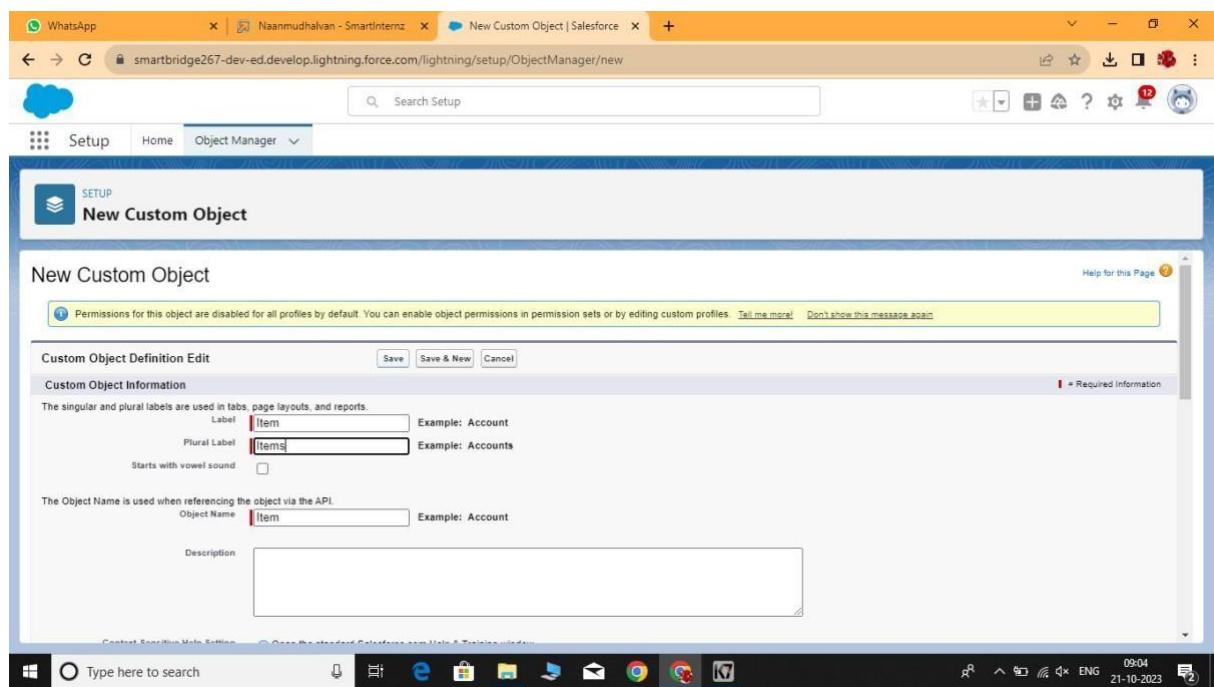
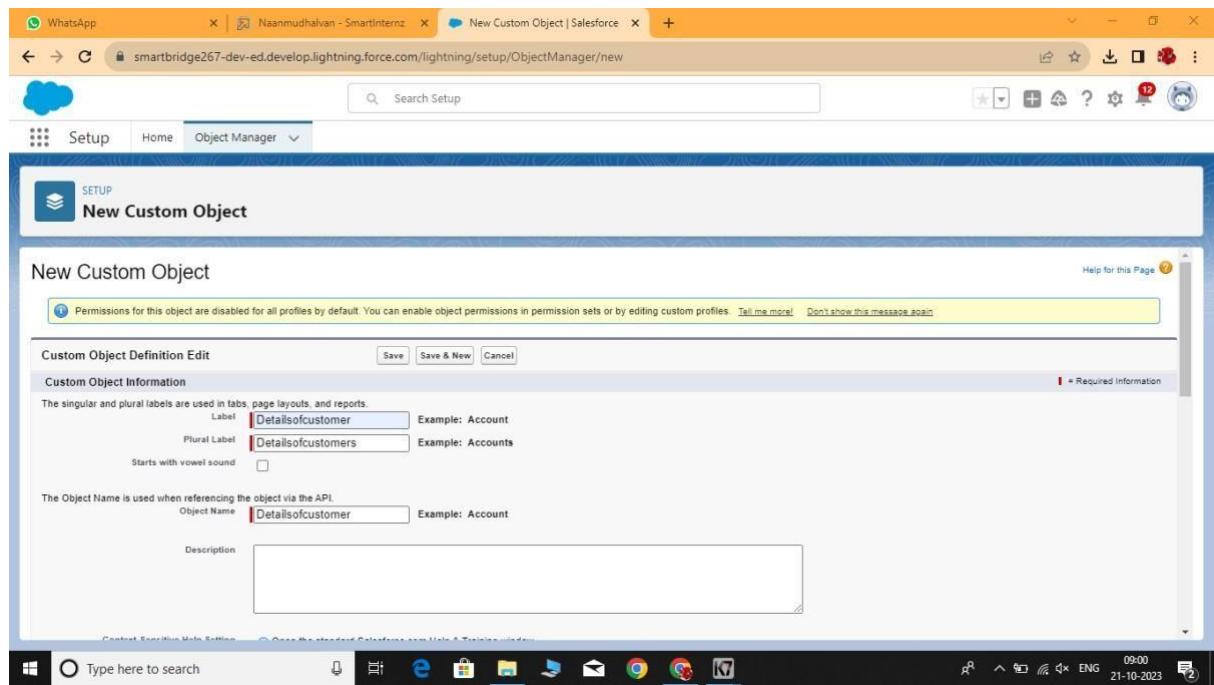


The screenshot shows the Salesforce Object Manager interface. The top navigation bar includes tabs for WhatsApp, Naanmudhalvan - SmartInternz, and Object Manager | Salesforce. The main content area is titled "Object Manager" and displays a list of 51+ items, sorted by Label. The columns in the table are LABEL, API NAME, TYPE, DESCRIPTION, and LAST MODIFIED. The "LAST MODIFIED" column shows a tooltip for "Custom Object from Spreadsheet". The bottom status bar indicates the URL as <https://smartbridge267-dev-ed.lightning.force.com/lightning/setup/ObjectManager>, the date as 21-10-2023, and the time as 08:51.

LABEL	API NAME	TYPE	DESCRIPTION	LAST MODIFIED
Account	Account	Standard Object		Custom Object from Spreadsheet
Activity	Activity	Standard Object		
Alternative Payment Method	AlternativePaymentMethod	Standard Object		
API Anomaly Event Store	ApiAnomalyEventStore	Standard Object		
Appointment Category	AppointmentCategory	Standard Object		
Appointment Invitation	AppointmentInvitation	Standard Object		
Appointment Invitee	AppointmentInvitee	Standard Object		
Appointment Topic Time Slot	AppointmentTopicTimeSlot	Standard Object		
Asset	Asset	Standard Object		
Asset Action	AssetAction	Standard Object		

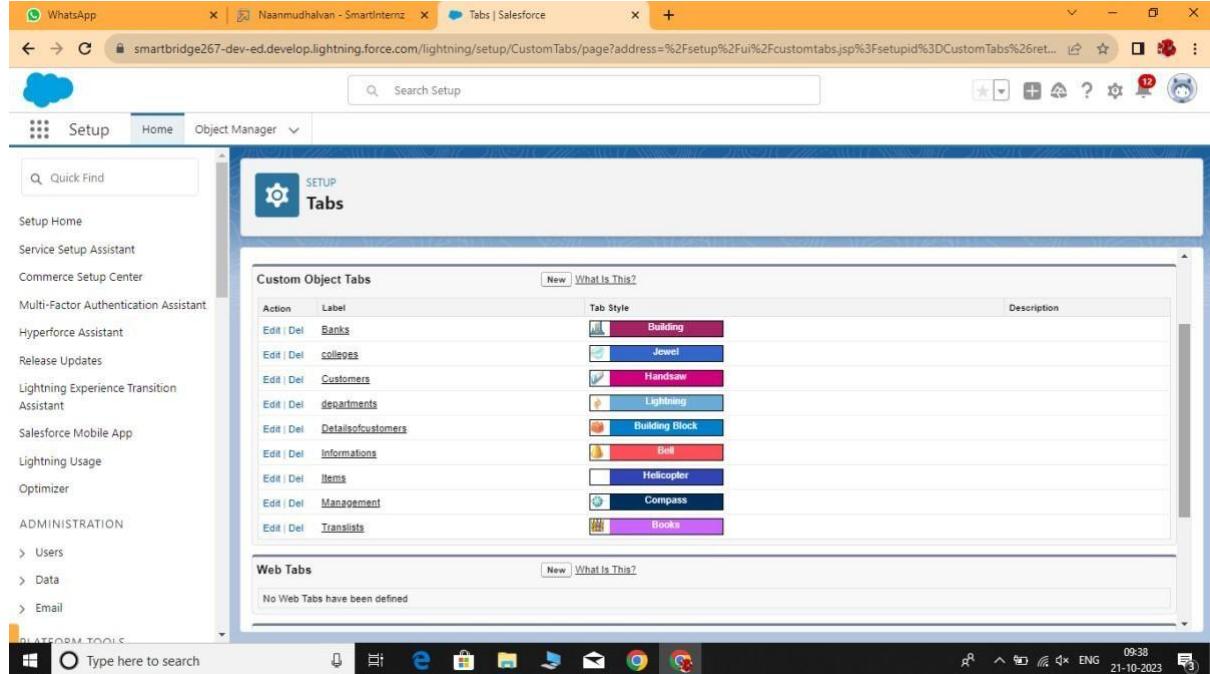


The screenshot shows the "New Custom Object" page. The title bar says "New Custom Object". The main form is titled "Custom Object Definition Edit" and contains sections for "Custom Object Information" and "Object Name". In "Custom Object Information", fields include "Label" (Tranlist), "Plural Label" (Translists), and a checkbox "Starts with vowel sound". In "Object Name", the field is "Object Name" (Tranlist) and the example is "Account". There is a "Description" text area. At the top of the page, there is a message about permissions being disabled by default. The bottom status bar indicates the URL as <https://smartbridge267-dev-ed.lightning.force.com/lightning/setup/ObjectManager/new>, the date as 21-10-2023, and the time as 08:56.



Tabs for Created Objects:

Salesforce Tabs are like the menu options in a software application. They allow you to access specific functions, objects, or data.

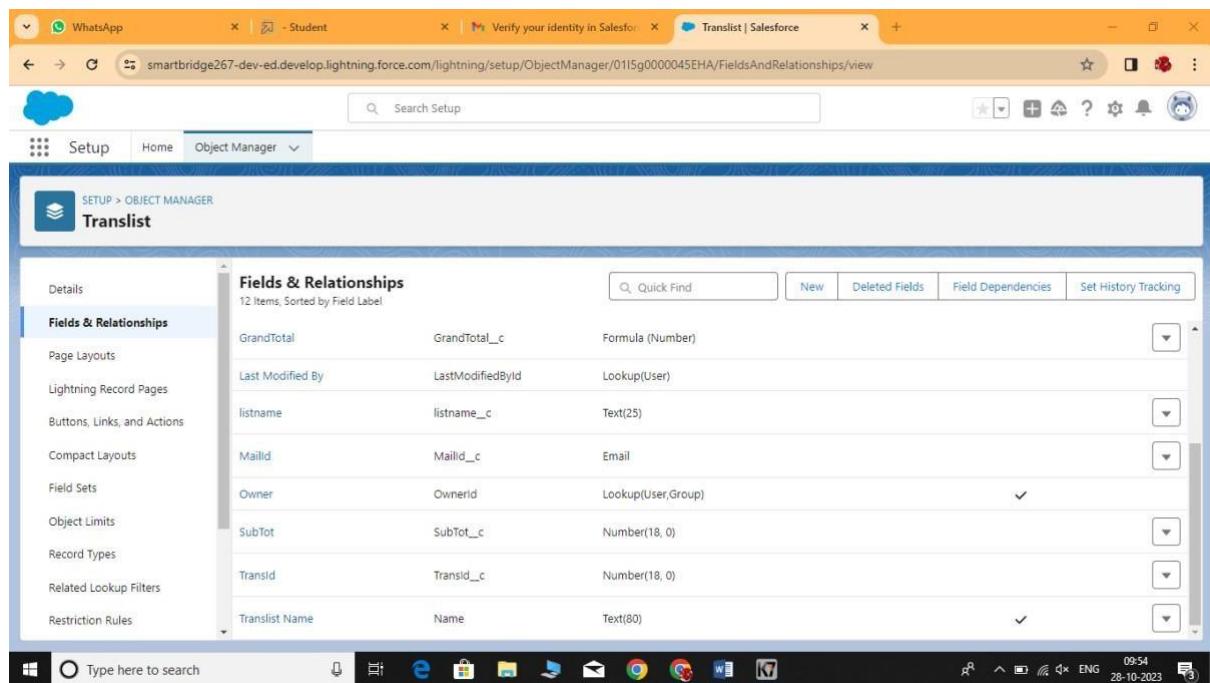


The screenshot shows the Salesforce Setup interface with the 'Tabs' page selected. The left sidebar includes links for Setup Home, Service Setup Assistant, Commerce Setup Center, Multi-Factor Authentication Assistant, Hyperforce Assistant, Release Updates, Lightning Experience Transition Assistant, Salesforce Mobile App, Lightning Usage, Optimizer, and Administration (Users, Data, Email). The main content area displays 'Custom Object Tabs' and 'Web Tabs'. Under 'Custom Object Tabs', there is a table listing various tabs with their labels and icons:

Action	Label	Tab Style	Description
Edit Del	Banks	Building	
Edit Del	colleagues	Jewel	
Edit Del	Customers	Handsaw	
Edit Del	departments	Lightning	
Edit Del	Detailsofcustomers	Building Block	
Edit Del	Informations	Bell	
Edit Del	Items	Helicopter	
Edit Del	Management	Compass	
Edit Del	Translists	Books	

Under 'Web Tabs', it says 'No Web Tabs have been defined'.

Fields in Translist Object:



The screenshot shows the Salesforce Setup interface with the 'Object Manager' page selected. The left sidebar includes links for Details, Fields & Relationships, Page Layouts, Lightning Record Pages, Buttons, Links, and Actions, Compact Layouts, Field Sets, Object Limits, Record Types, Related Lookup Filters, and Restriction Rules. The main content area displays 'Fields & Relationships' for the 'Translist' object. The table lists fields with their labels, field types, and descriptions:

Label	Type	Description
GrandTotal	GrandTotal__c	Formula (Number)
Last Modified By	LastModifiedById	Lookup(User)
listname	listname__c	Text(25)
MailId	MailId__c	Email
Owner	OwnerId	Lookup(User,Group)
SubTot	SubTot__c	Number(18, 0)
TransId	TransId__c	Number(18, 0)
Translist Name	Name	Text(80)

Fields in DetailsOfCustomer Object:

The screenshot shows the Salesforce Object Manager interface for the 'DetailsOfCustomer' object. The left sidebar lists various setup options like Page Layouts, Lightning Record Pages, and Field Sets. The main area displays a table titled 'Fields & Relationships' with 6 items. The columns are FIELD LABEL, FIELD NAME, DATA TYPE, CONTROLLING FIELD, and INDEXED. The data is as follows:

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
ContNo	ContNo_c	Phone		
Created By	CreatedById	Lookup(User)		
Detailsofcustomer Name	Name	Text(80)		
Last Modified By	LastModifiedById	Lookup(User)		
mailid	mailid_c	Email		
Owner	OwnerId	Lookup(User,Group)		

Fields of Item Object:

The screenshot shows the Salesforce Object Manager interface for the 'Item' object. The left sidebar lists various setup options like Page Layouts, Lightning Record Pages, and Field Sets. The main area displays a table titled 'Fields & Relationships' with 7 items. The columns are FIELD LABEL, FIELD NAME, DATA TYPE, CONTROLLING FIELD, and INDEXED. The data is as follows:

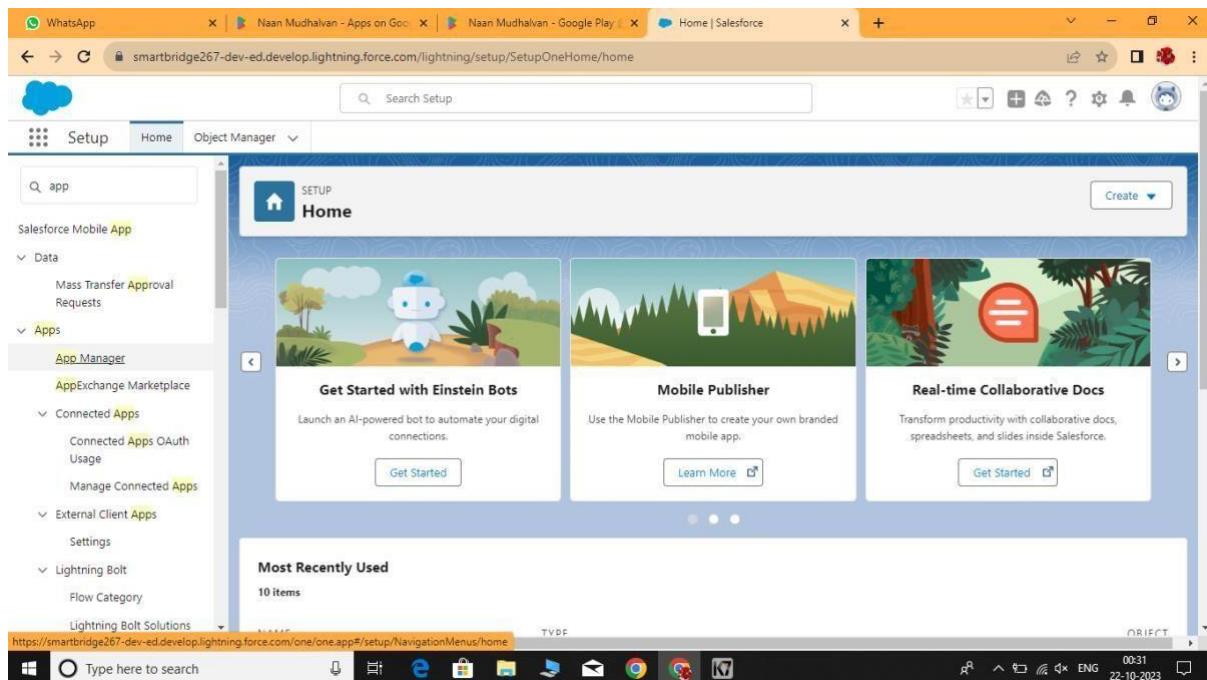
FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Created By	CreatedById	Lookup(User)		
Item Name	Name	Text(80)		
Last Modified By	LastModifiedById	Lookup(User)		
manfdate	manfdate_c	Date		
Owner	OwnerId	Lookup(User,Group)		
price	price_c	Number(18, 0)		
prodname	prodname_c	Text(25)		

2.3 Lightning App

The Lightning App Builder is a point-and-click tool that makes it easy to create custom pages for the Salesforce mobile app and Lightning Experience, giving your users what they need all in one place.

Create a CRM Lightning App

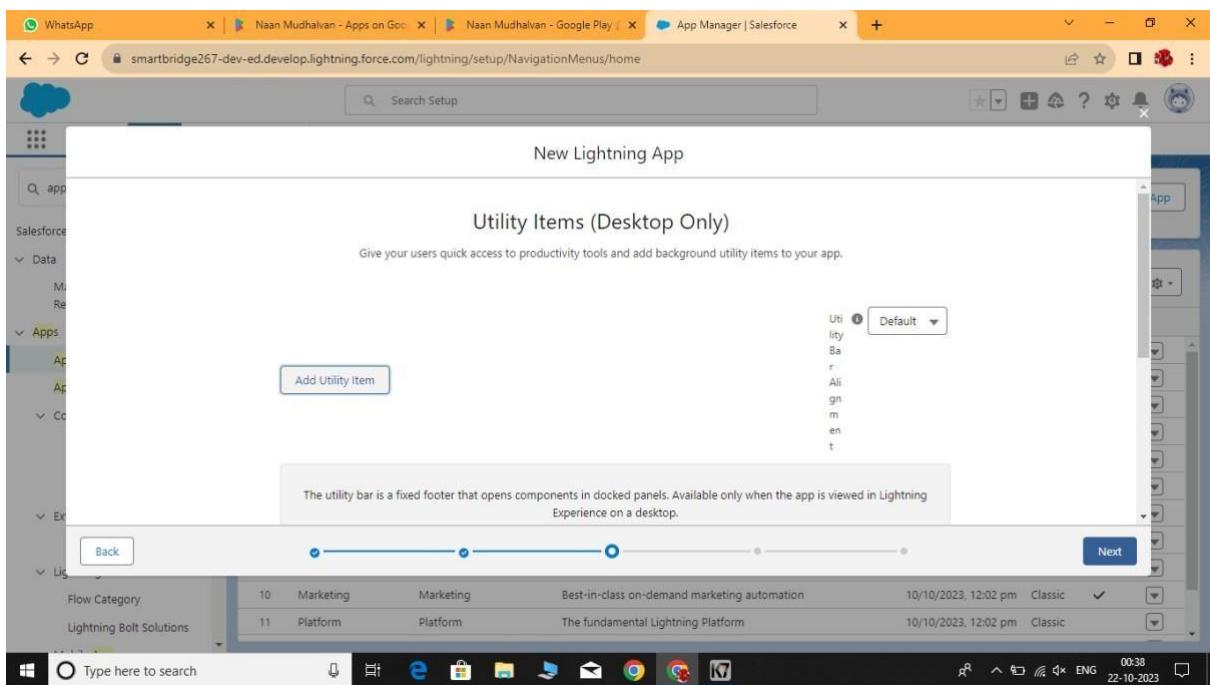
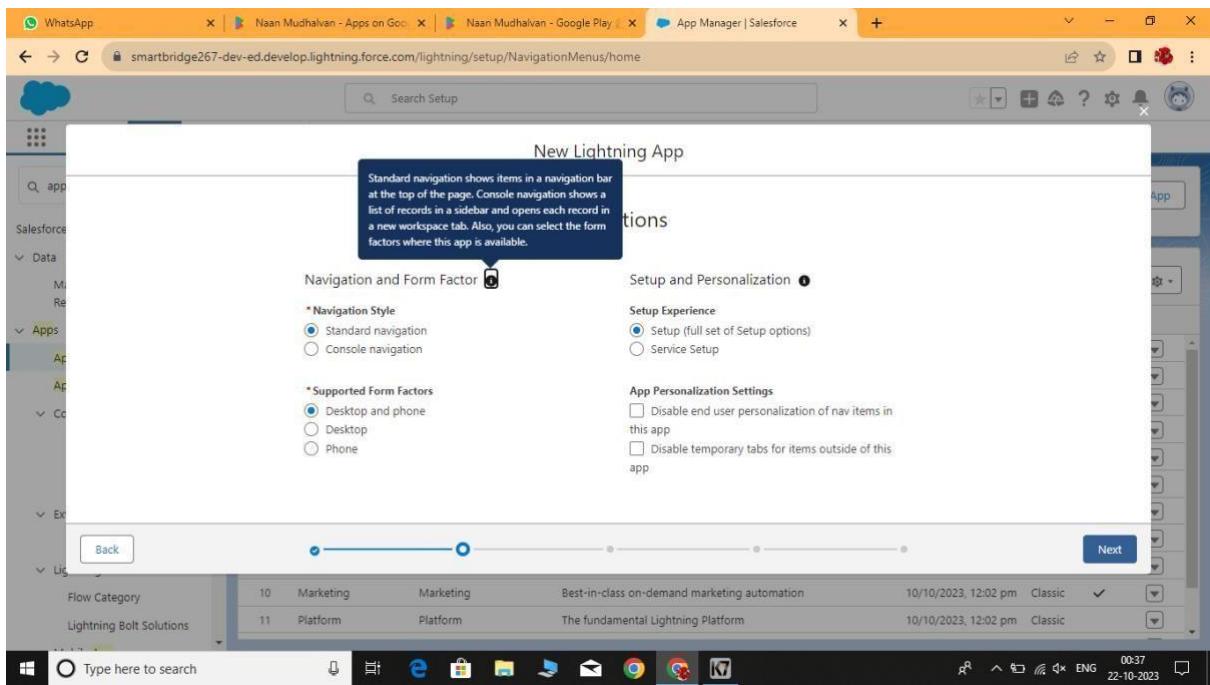
- Build a Lightning app, add tabs, and customize page layouts.
- Create custom objects and fields for the app.
- Define relationships between objects.
- Import data and test the app.

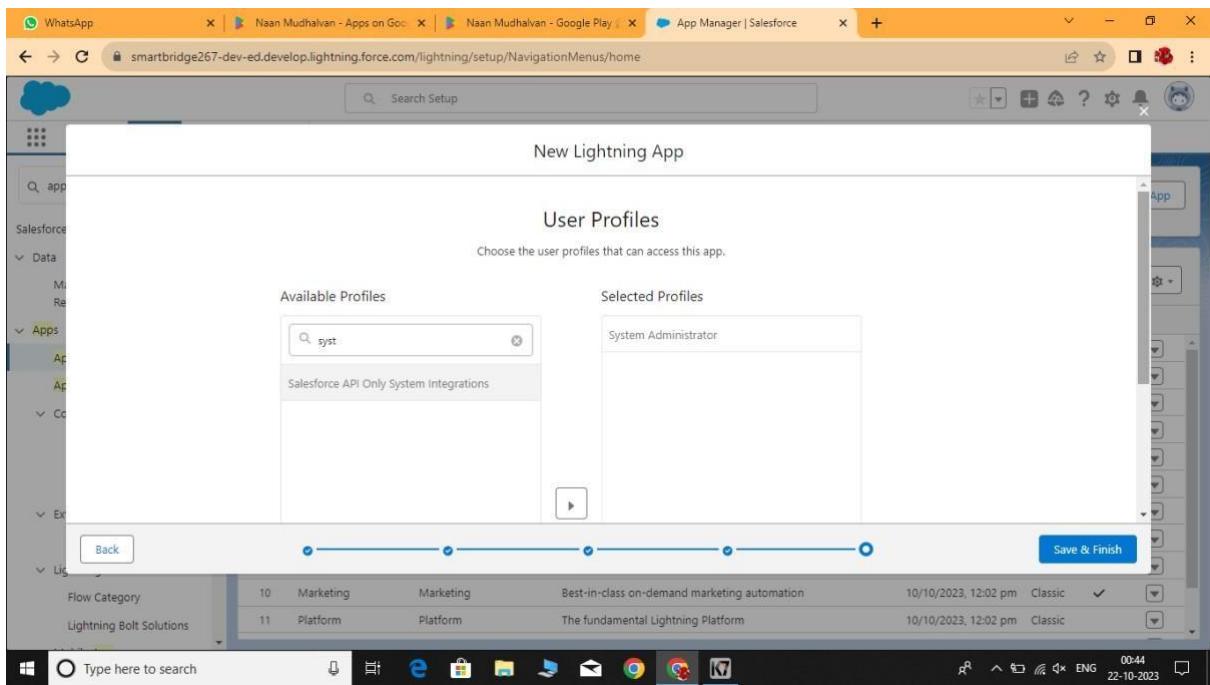
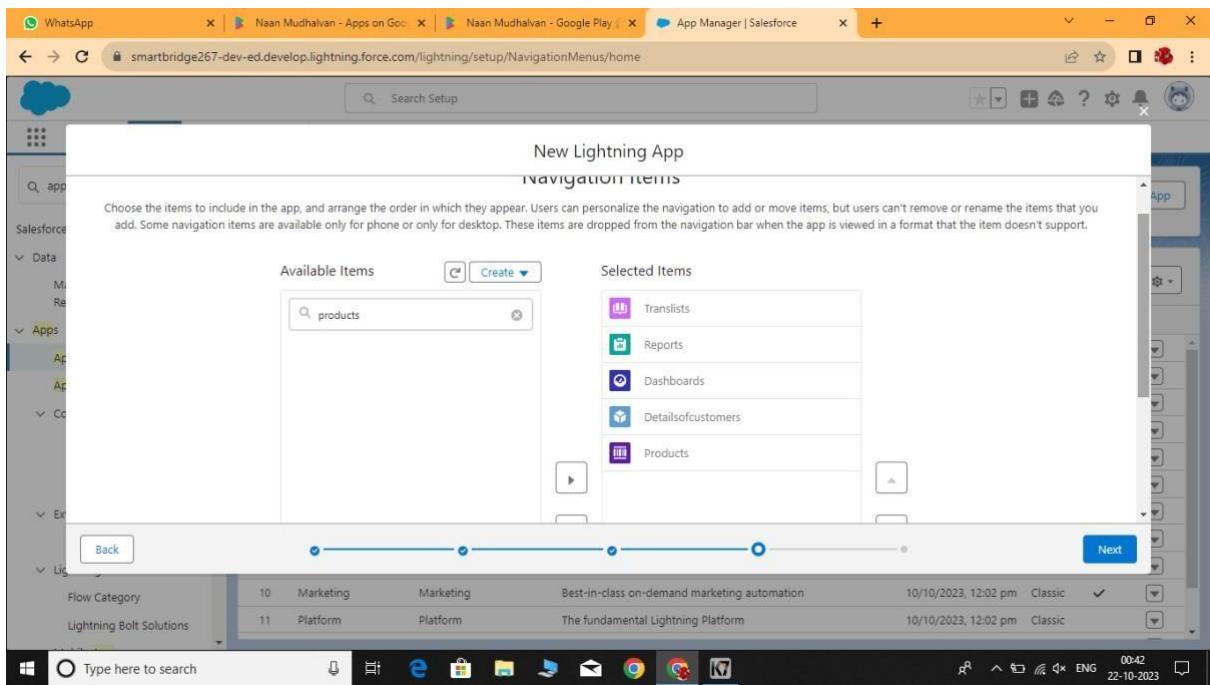


The screenshot shows the 'Lightning Experience App Manager' page. The left sidebar has a search bar and categories like 'Salesforce Mobile App', 'Data', 'Apps' (with 'App Manager' selected), 'Connected Apps', 'External Client Apps', 'Lightning Bolt', and 'List'. The main area displays a table of 23 items, sorted by App Name. The columns are: App Name, Developer Name, Description, Last Modified, Type, and Visibility. The table includes rows for All Tabs, Analytics Studio, App Launcher, Bolt Solutions, Community, Content, Data Manager, Digital Experiences, Lightning Usage App, Marketing, and Platform.

App Name	Developer Name	Description	Last Modified	Type	Visibility
All Tabs	AllTabSet		10/10/2023, 12:02 pm	Classic	✓
Analytics Studio	Insights	Build CRM Analytics dashboards and apps	10/10/2023, 12:02 pm	Classic	✓
App Launcher	AppLauncher	App Launcher tabs	10/10/2023, 12:02 pm	Classic	✓
Bolt Solutions	LightningBolt	Discover and manage business solutions designed for your ind...	10/10/2023, 12:04 pm	Lightning	✓
Community	Community	Salesforce CRM Communities	10/10/2023, 12:02 pm	Classic	✓
Content	Content	Salesforce CRM Content	10/10/2023, 12:02 pm	Classic	✓
Data Manager	DataManager	Use Data Manager to view limits, monitor usage, and manage r...	10/10/2023, 12:02 pm	Lightning	✓
Digital Experiences	SalesforceCMS	Manage content and media for all of your sites.	10/10/2023, 12:02 pm	Lightning	✓
Lightning Usage App	LightningInstrumentation	View Adoption and Usage Metrics for Lightning Experience	10/10/2023, 12:02 pm	Lightning	✓
Marketing	Marketing	Best-in-class on-demand marketing automation	10/10/2023, 12:02 pm	Classic	✓
Platform	Platform	The fundamental Lightning Platform	10/10/2023, 12:02 pm	Classic	✓

The screenshot shows the 'New Lightning App' configuration page. The left sidebar is identical to the previous screenshot. The main area has a title 'App Details & Branding' with instructions: 'Give your Lightning app a name and description. Upload an image and choose the highlight color for its navigation bar.' It contains two sections: 'App Details' (with fields for App Name, Developer Name, and Description) and 'App Branding' (with fields for Image, Primary Color Hex, and Org Theme Options). A 'Next' button is at the bottom right. The status bar at the bottom shows system information: 00:32, ENG, 22-10-2023.





The screenshot shows the Salesforce Lightning interface. The top navigation bar includes 'Recently Viewed', 'Translists', 'Reports', 'Dashboards', 'Detailsofcustomers', and 'Products'. The main content area is titled 'Translists Recently Viewed' and displays a list of 4 items, all updated a few seconds ago. The list contains the following entries:

	Tranlist Name
1	Ananya
2	Amirtha
3	Arun
4	Anjali

At the top right of the list view, there are buttons for 'New', 'Import', and 'Change Owner'. Below the list are standard Salesforce edit and delete icons. The bottom of the screen shows the Windows taskbar with various pinned icons and the date/time as 28-10-2023.

2.4 Relationship between Objects

Look up Relationship

Lookup Relationship in Salesforce relates two objects together but does not affect deletion (cascade delete functionality) or security.

The screenshot shows the Salesforce Setup interface. The top navigation bar includes 'Setup', 'Home', and 'Object Manager'. The main content area is titled 'Tranlist' under 'SETUP > OBJECT MANAGER'. On the left, a sidebar lists various setup categories like 'Page Layouts', 'Lightning Record Pages', etc. The main panel is titled 'Fields & Relationships' and shows 14 items sorted by field label. The table lists the fields and their relationships:

Created By	CreatedById	Lookup(User)
Dateoftrans	Dateoftrans__c	Date
Detailsofcustomer	Detailsofcustomer__c	Lookup(Detailsofcustomer)
Discount	Discount__c	Number(18, 0)
GrandTotal	GrandTotal__c	Formula (Number)
Item	Item__c	Lookup(Item)
Last Modified By	LastModifiedById	Lookup(User)
listname	listname__c	Text(25)

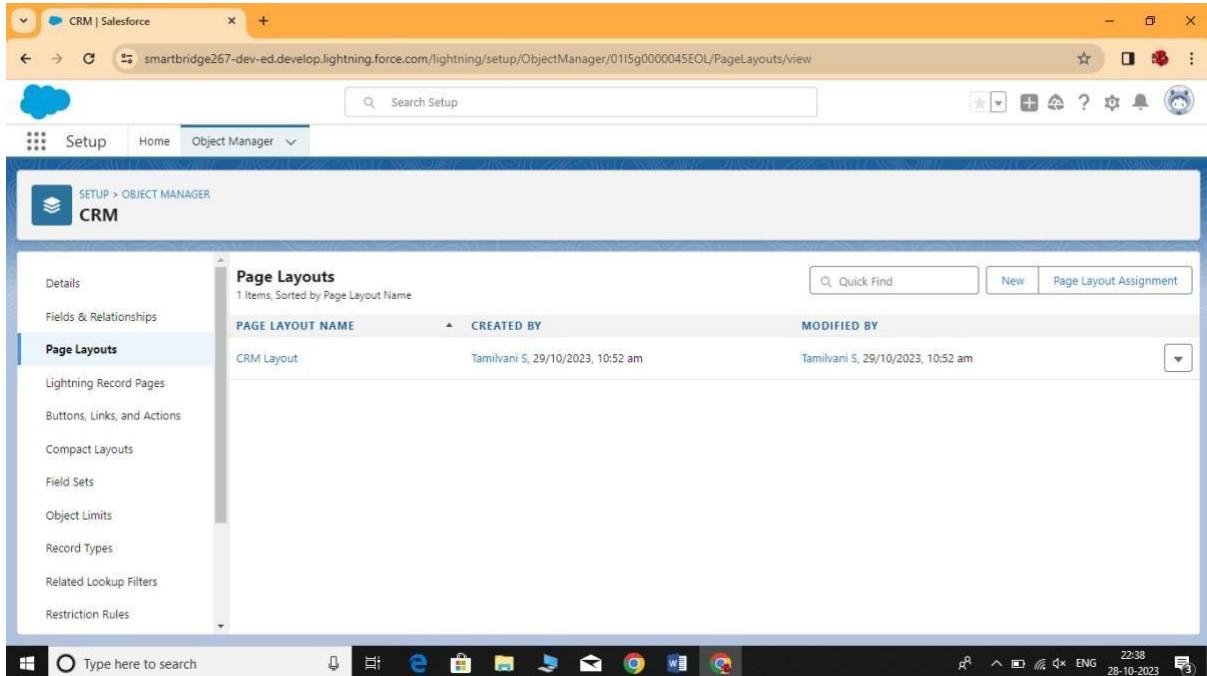
At the top right of the list view, there are buttons for 'Quick Find', 'New', 'Deleted Fields', 'Field Dependencies', and 'Set History Tracking'. Below the list are standard Salesforce edit and delete icons. The bottom of the screen shows the Windows taskbar with various pinned icons and the date/time as 28-10-2023.

2.5 Customize User Interface

Customize your app's page layouts, compact layouts, and actions.

Page Layout

A page layout determines the fields, sections, related lists, and buttons that appear when users view or edit a record. You can modify an object's default page layout or create a custom page layout.



2.6 Business Logic

Validation Rules

Validation rules let you set up business-specific criteria to prevent users from saving invalid data in one or more fields.

A validation rule evaluates a formula when a record is saved.

If a rule's criteria aren't met, users see a custom error message and the record doesn't save.

Use validation rules to improve data quality by applying conditions, ensuring proper formatting, and enforcing consistency.

CHAPTER-3

USERS & DATA SECURITY

3.1 User Creation & Setup Approvals

Before customizing the travel app, first create a new user, Eric Executive, and set him up as manager. This involves assigning roles and profiles so that Eric has the correct permissions to approve travel requests.

The screenshot shows the Salesforce Setup interface with the URL smartbridge267-dev-ed.lightning.force.com/lightning/setup/ManageUsers/home. The left sidebar is collapsed, showing 'Users' under 'User Management Settings'. The main content area is titled 'All Users' and displays a table of users with columns for Action, Full Name, Alias, Username, Role, Active, and Profile. The table includes rows for various users like '1_Manager', 'Bank_Manager', 'Chatter_Executive', 'S_Tamilvani', etc., each with their respective details and profile assignments.

Action	Full Name	Alias	Username	Role	Active	Profile
<input type="checkbox"/> Edit	1_Manager	m1	manager.vw@gmail.com	Marketing Team	✓	Manager
<input type="checkbox"/> Edit	Bank_Manager	mbank	manager.vx@gmail.com	Marketing Team	✓	Management
<input type="checkbox"/> Edit	Chatter_Executive	Chatter	chatty.00d50000007m5aeab.wht49ivh5ren@chatter.salesforce.com		✓	Chatter Free User
<input type="checkbox"/> Edit	S_Tamilvani	TS	tamil@avz.com		✓	System Administrator
<input type="checkbox"/> Edit	Sales_Manager	msale	managers.s@gmail.com	Marketing Team	✓	Salesforce API Only System Integrations
<input type="checkbox"/> Edit	User_Integration	integ	integration@00d50000007m5aeab.com		✓	Analytics Cloud Integration User
<input type="checkbox"/> Edit	User_Security	sec	insightssecurity@00d50000007m5aeab.com		✓	Analytics Cloud Security User

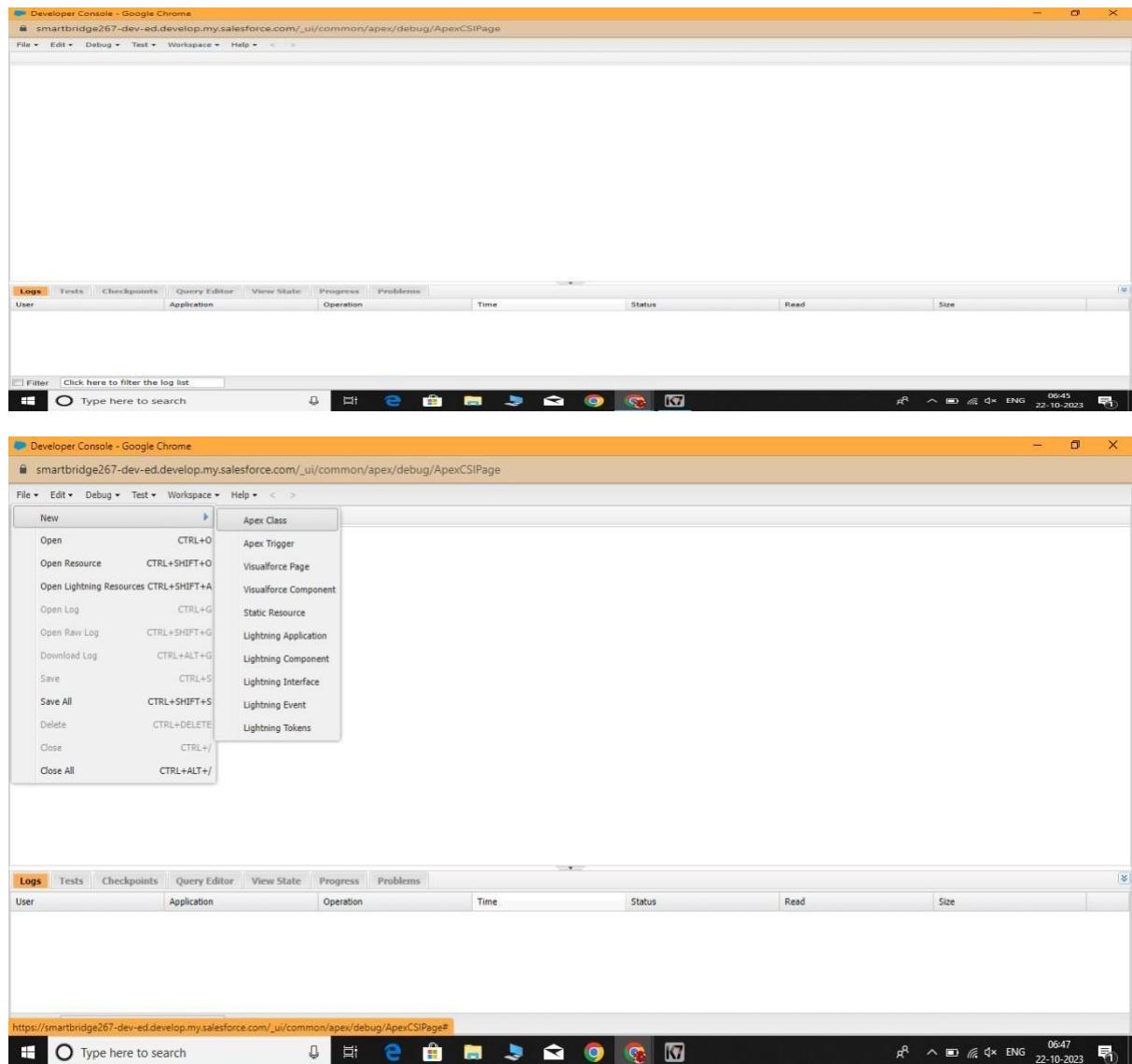
CHAPTER-4

APEX & THEIR SCHEDULERS

4.1 Apex Creation

Apex is a programming language that's used within the Salesforce platform for developing custom functionality and automating business processes.

Apex is used to add custom code to Salesforce applications. It allows you to create complex business processes, automate workflows, and extend the functionality of your Salesforce organization.



Developer Console - Google Chrome
smartbridge267-dev-ed.develop.my.salesforce.com/_ui/common/apex/debug/ApexCSIPage

File ▾ Edit ▾ Debug ▾ Test ▾ Workspace ▾ Help ▾ < >

Grandsum.apxc

Code Coverage: None | API Version: 59 | Go To

```
1 public class Grandsum {  
2  
3 }
```

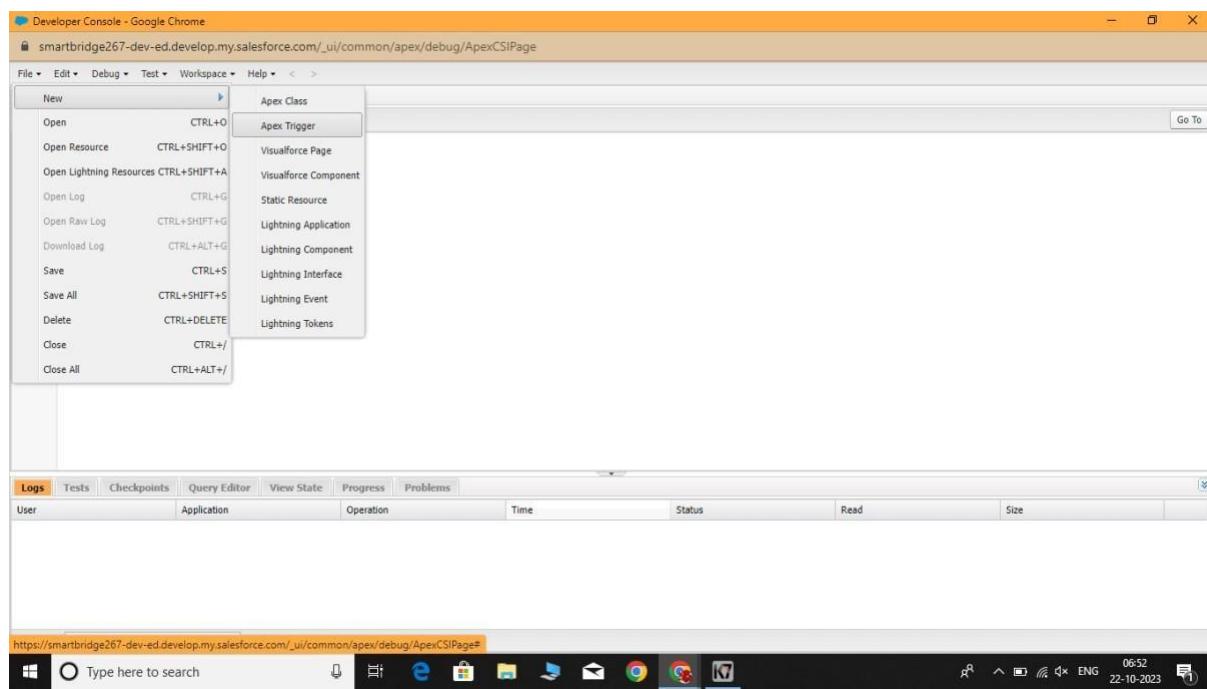
Logs Tests Checkpoints Query Editor View State Progress Problems

User	Application	Operation	Time	Status	Read	Size

Filter Click here to filter the log list

Type here to search

R 06:50 22-10-2023 ENG



Developer Console - Google Chrome
smartbridge267-dev-ed.develop.my.salesforce.com/_ui/common/apex/debug/ApexCSIPage

Saving: Grandsum.apxc * | accmail.apxc *

Code Coverage: None | API Version: 59 | Go To

```
1 trigger accmail on Tranlist__c (after insert)
2 {
3     if(trigger.isafter)
4     {
5         if(trigger.isInsert)
6         {
7             handlerTransist.doc(trigger.new);
8             translist__c trr=new translist__c();
9
10        }
11    }
12 }
```

Logs Tests Checkpoints Query Editor View State Progress Problems

User	Application	Operation	Time	Status	Read	Size

Filter Click here to filter the log list

Type here to search

07:14 22-10-2023

Developer Console - Google Chrome
smartbridge267-dev-ed.develop.my.salesforce.com/_ui/common/apex/debug/ApexCSIPage

Saving: Grandsum.apxc * | accmail.apxc *

Code Coverage: None | API Version: 59 | Go To

```
1 public class handlerTransist {
2     public static void doc(List<Translist__c> tr){
3         List<detailsofcustomer__c> dc=new List<detailsofcustomer__c>();
4         for(Translist__c t:tr)
5         {
6             detailsofcustomer__c d=new detailsofcustomer__c();
7             d.tid_c=t.transid__c;
8             d.contno_c=t.ContactNo__c;
9             d.Name=t.Name;
10            dc.add(d);
11        }
12        insert dc;
13    }
14 }
15 }
```

Logs Tests Checkpoints Query Editor View State Progress Problems

User	Application	Operation	Time	Status	Read	Size

Filter Click here to filter the log list

Type here to search

07:31 22-10-2023

The screenshot shows the Salesforce Developer Console interface. The title bar reads "Developer Console - Google Chrome" and the URL is "smartbridge267-dev-ed.develop.my.salesforce.com/_ui/common/apex/debug/ApexCSIPage". The main area displays the Apex code for a class named "testclass.apc". The code implements the "Schedulable" interface and contains logic to query data from the database and perform scheduled tasks. The code editor has syntax highlighting and line numbers. Below the editor, there are tabs for "Logs", "Tests", "Checkpoints", "Query Editor", "View State", "Progress", and "Problems". The status bar at the bottom shows the Windows taskbar with icons for File Explorer, Edge, and other applications, along with system information like battery level, signal strength, and the date/time "22-10-2023 09:03".

```
1 * public class testclass implements Schedulable {
2     public void execute(Schedulablecontext ctx)
3     {
4         List<translist_c> d=[select transid_c order by transid_c];
5         List<translist_c> t=[select transid_c ,Product_c,name,mailid_c order by transid_c];
6         set<translist_c> s=new set<translist_c>(d);
7         list<translist_c> ls=new list<translist_c>();
8         list<translist_c> p=[select Product_c from translist_c];
9         list<translist_c> tc=new list<translist_c>();
10        for(translist_c c:s)
11        {
12            for(translist_c ts:t)
13            {
14                if(c.transid_c == ts.transid_c && !ls.contains(ts))
15                {
16                    ls.add(ts);
17                    integer c1=0;
18                    string s1=ts.Product_c;
19                    for(translist_c tr:t)
20                    {
21                        if(tr.Product_c!=s1)
22                        {
```

4.2 Apex Schedulers

Apex schedulers in Salesforce are a way to automate the execution of Apex code at specified intervals. This allows you to perform tasks or processes on a scheduled basis without manual intervention. Apex schedulers are used to define scheduled jobs. These jobs consist of Apex code that you want to run at specific intervals.

Apex Classes ~ Salesforce - Developer Edition - Google Chrome

empathetic-badger-8wyxm5-dev-ed.trailblaze.my.salesforce.com/_ui/common/data/LookupPage?lkf...

Lookup

Search... Go!

You can use "*" as a wildcard next to other characters to improve your search results.

Recently Viewed Apex Classes

Name	Namespace Prefix	Api Version
testclass		58

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(1) WhatsApp | Get Started with Picklist | Lightning Experience | TAMILVANI S - Trailblazer | Apex Classes | Salesforce | New Tab

smartbridge267-dev-ed.develop.lightning.force.com/lightning/setup/ApexClasses/home

Setup

Search Setup

Apex Classes

Apex Classes

Apex Code is an object oriented programming language that allows developers to develop on-demand business applications on the Lightning Platform.

Percent of Apex Used: 0% You are currently using 137 characters of Apex Code (excluding comments and @isTest annotated classes) in your organization, out of an allowed limit of 6,000,000 characters. Note that the amount in use includes both Apex Classes and Triggers defined in your organization.

Estimate your organization's code coverage [\[i\]](#)

Compile all classes [\[i\]](#)

View: All [Create New View](#)

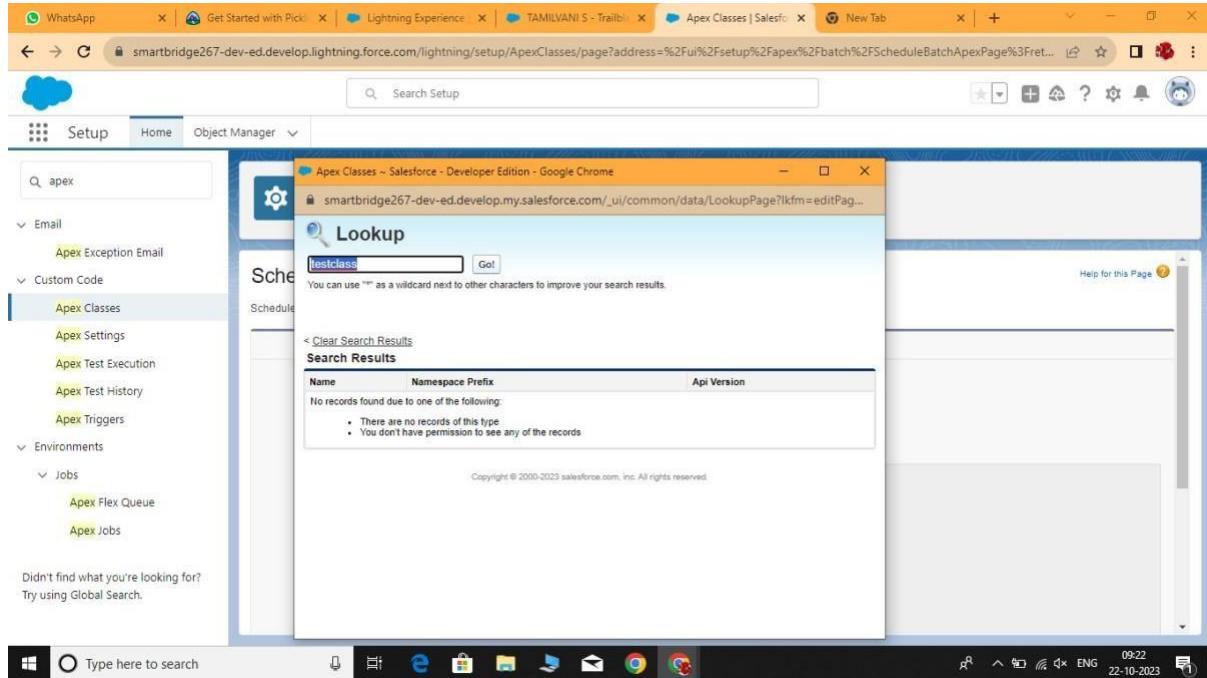
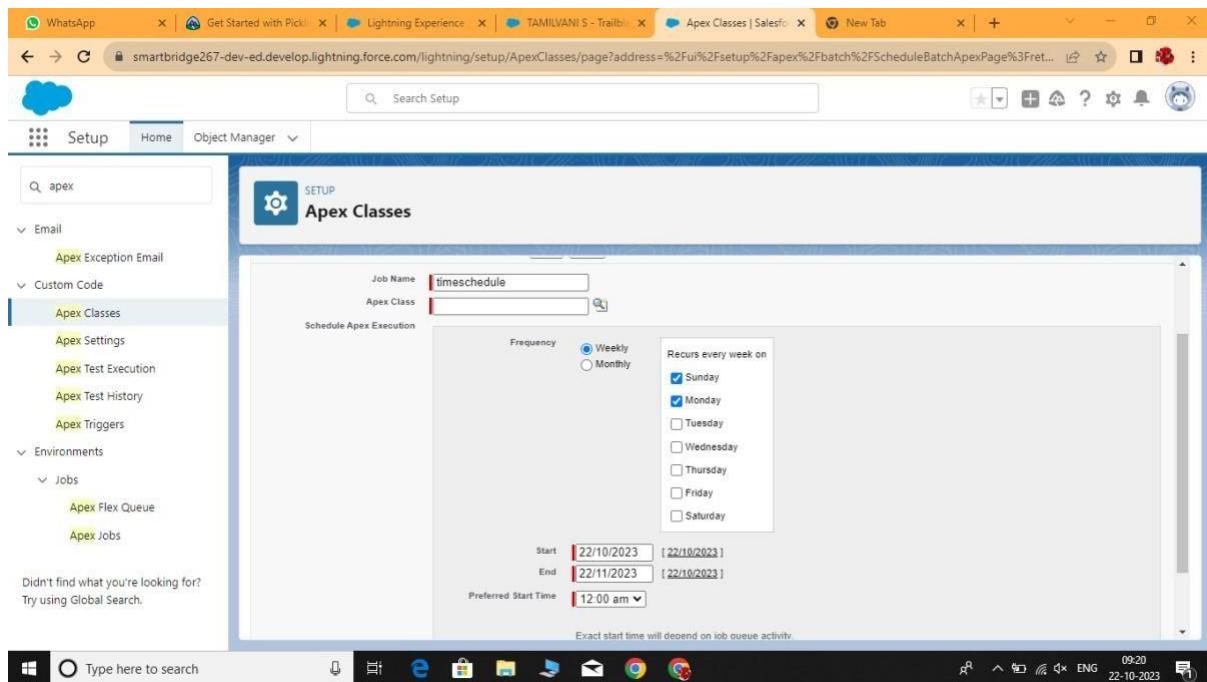
Action	Name	Namespace Prefix	Api Version	Status	Size Without Comments	Last Modified By	Has Trace Flags
Edit Del Security	Grandsum		59.0	Active	26	Tamilvani S, 22/10/2023, 7:04 pm	<input type="checkbox"/>
Edit Del Security	handlerTransit		59.0	Active	33	Tamilvani S, 22/10/2023, 7:30 pm	<input type="checkbox"/>
Edit Del Security	testclass		59.0	Active	27	Tamilvani S, 22/10/2023, 7:54 pm	<input type="checkbox"/>

Dynamic Apex Classes

https://smartbridge267-dev-ed.develop.lightning.force.com/one/oneapp#setup/...

Type here to search

09:13 22-10-2023



Schedule Apex Execution

Frequency Weekly Monthly

Recur every week on

Sunday
 Monday
 Tuesday
 Wednesday
 Thursday
 Friday
 Saturday

Start [24/07/2023]
End [24/07/2023]
Preferred Start Time

Exact start time will depend on job queue activity.

Save **Cancel**

WhatsApp | Get Started with | Lightning Experience | TAMILVANI S - Tr | Apex Jobs | Sales | Apex Jobs ~ Sales | New Tab | + | - | X

smartbridge267-dev-ed.develop.lightning.force.com/lightning/setup/AsyncApexJobs/home

Setup Home Object Manager ▾

Apex Jobs

Click here to go to the new batch jobs page

Apex Jobs

Monitor the status of all Apex jobs, and optionally, abort jobs that are in progress.

Percent of Asynchronous Apex Used: 0%
You have currently used 0 asynchronous Apex operations out of an allowed 24-hour organization limit of 250,000. To learn about how this limit is calculated and what contributes to it, see the Lightning Platform Apex Limits topic.

View: All ▾ Create New View

Submitted Date	Job Type	Status	Status Detail	Total Batches	Batches Processed	Failures	Submitted By	Completion Date	Apex Class	Apex Method	Apex Job ID
No records to display.											

Didn't find what you're looking for?
Try using Global Search.

javascripvoid(0)

Type here to search

9:39 22-10-2023 ENG

Final Views

The image displays two separate screenshots of a web browser window, each showing a different Salesforce detail page.

Screenshot 1: Product Detail Page - Oreo

This screenshot shows the details for a product named "Oreo". The product code is "axe". The "Details" tab is selected. Other tabs include "Related" and "Product Family".

Field	Value
Product Name	Oreo
Product Code	axe
Created By	Tamilvani S, 28/10/2023, 10:34 pm
Last Modified By	Tamilvani S, 28/10/2023, 10:34 pm

Screenshot 2: Tranlist Detail Page - Ananya

This screenshot shows the details for a tranlist named "Ananya". The tranlist ID is "986". The list name is "Juices". The contact number is "9884679751". The email address is "oiu@gmail.com". The date of transaction is "02/10/2023". The subtotal is "986". The discount is listed as "Discount".

Field	Value
Tranlist Name	Ananya
TransId	986
listname	Juices
ContactNo	9884679751
EmailId	oiu@gmail.com
DateofTrans	02/10/2023
SubTot	986
Discount	

Smartbridge267-dev-ed.lightning.force.com/lightning/o/Product2/list?filterName=Recent

Products Recently Viewed

	Product Name	Product Class	Product Code	Product Description	Product Family
1	Oreo	Simple	axe		
2	raspberry	Simple	ras		
3	shakes	Simple	juice		
4	cranberry	Simple	fruits		

Type here to search

smartbridge267-dev-ed.lightning.force.com/lightning/r/Product2/01t5g00000EvaQDAAZ/related/PricebookEntries/view

Products > Oreo Price Books

Price Book Name	List Price	Use Standard Price	Active
Standard Price Book	₹100.00	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Type here to search

CHAPTER-5

REPORTS & DASHBOARD

5.1 Reports

A Salesforce report is a list of data generated based on filter criteria. Salesforce Reports helped us predict trends and gives us the advantage to increase profits.

The report builder provides a drag-and-drop interface to easily build and customize your reports.

Create Report

Category

- Recently Used
- All
 - Accounts & Contacts
 - Opportunities
 - Customer Support Reports
 - Leads
 - Campaigns
 - Activities
 - Contracts and Orders
 - Price Books, Products and Assets
 - Administrative Reports
 - File and Content Reports

Select a Report Type

Report Type Name

- Activities with translists
- translists
- translists with Lead
- translists with transOrders
- translists with transOrders and translists no
- translists History

Details

translists Standard Report Type

Start Report

Fields (22)

Created By You

translists Report

Created By Others

No Reports Yet

Objects Used in Report Type

Owner

translists



Save Report

* Report Name
translists Report

Report Unique Name ⓘ
translists_Report_L2W

Report Description

Folder
Private Reports

REPORT ▾
prod_reports / translists

Fields > Previewing a limited number of records. Run the report to see everything.

ProductRelated	translists_listname	ContactNo	Subtot	GrandTotal	DateofTrans
- (1)	Mani Deepak	9705864946	2,000	2,000	01/07/2023
	rakesh	-	-	0	-
	pinku	-	1,500	1,500	-
	SUJANY	-	2,570	2,570	-
	deepak	-	2,000	2,000	-
	mani	-	1,000	1,000	-
	mani	-	-	0	-
	mani	-	2,000	2,000	-
	Mani Deepak	9705864942	500	400	20/06/2023
	Rakesh	9374964947	1,350	1,026	29/06/2023
	Varaprasad	9239723282	2,000	1,300	25/06/2023
Subtotal			14,920	13,796	
Crocs (2)	yenwarth	9203810382	900	900	27/06/2023
	Naveen	9059733793	2,300	1,725	-
Subtotal			3,200	2,625	
Face Mask (1)	Rakesh	9900392020	1,200	1,080	-

Row Counts Detail Rows Subtotals Grand Total

Save Report As

* Report Name
prod_reports

Report Unique Name ⓘ
prod_reports_8Em

Report Description

Folder
Private Reports

5.2 Dashboard

A dashboard provides an interactive visual display of key metrics and trends. Multiple dashboard components can be shown together on a single dashboard layout, creating rich visual displays of multiple reports that have a common theme. **Dashboard on Dashboard on Translist object**

New Dashboard

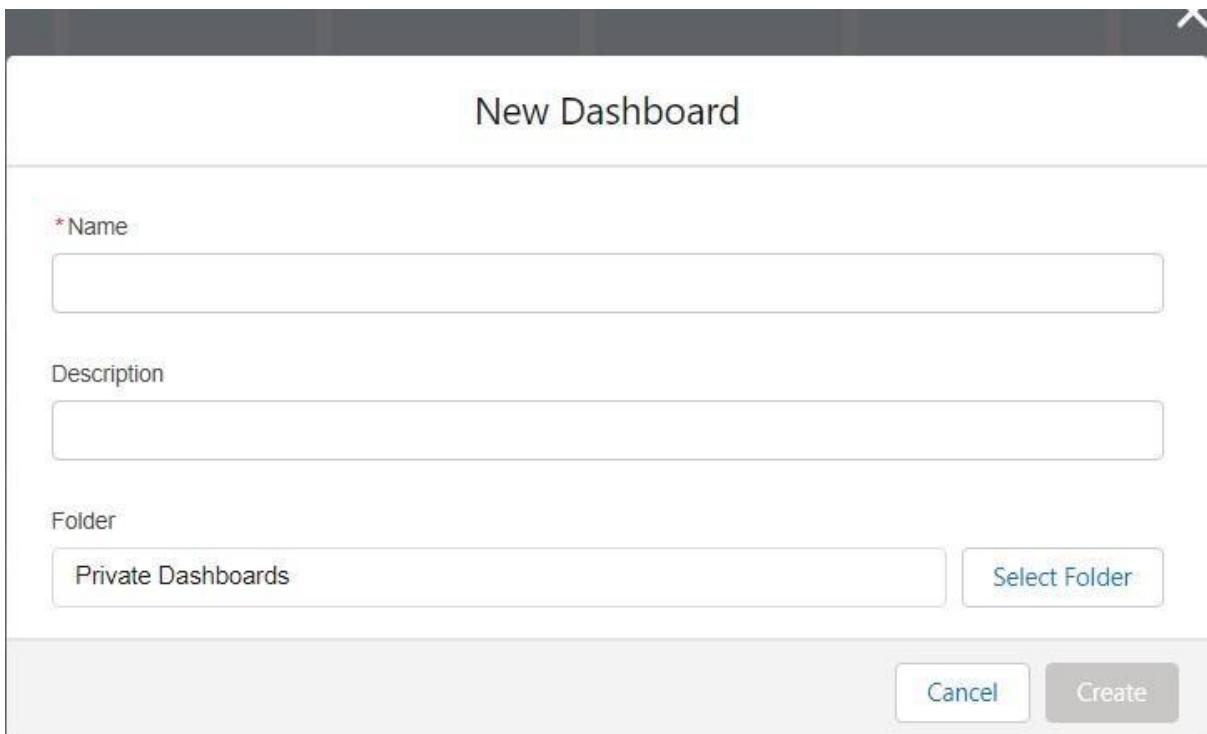
* Name

Description

Folder

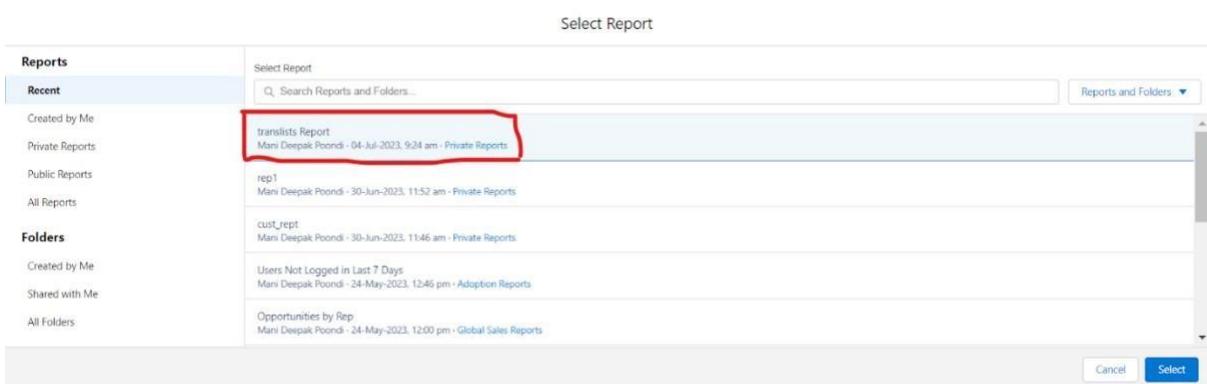
Private Dashboards Select Folder

Cancel Create



Select Report

Reports	Recent
Created by Me	translists Report Mani Deepak Pooni - 04-Jul-2023, 9:24 am · Private Reports
Private Reports	rep1 Mani Deepak Pooni - 30-Jun-2023, 11:52 am · Private Reports
Public Reports	cust_rept Mani Deepak Pooni - 30-Jun-2023, 11:46 am · Private Reports
All Reports	Users Not Logged in Last 7 Days Mani Deepak Pooni - 24-May-2023, 12:46 pm · Adoption Reports
Folders	Opportunities by Rep Mani Deepak Pooni - 24-May-2023, 12:00 pm · Global Sales Reports
	<input type="button" value="Cancel"/> <input type="button" value="Select"/>



Add Component

Report

translists Report X

Use chart settings from report i

Display As

grid bar line map treemap pivot

grid

Groups

Add group... X

Columns

Add column... X

translists: listname X

Preview

translists Report

translists: listna...	translists: ID	ContactNo	Su...	Disc...
rakesh	a055i00000UIO	-	-	-
Rakesh	a055i00000Tdv;	9374984	1k	24
SUUNY	a055i00000UIQ	-	3k	0
triveni	a055i00000Tdv	8923681	1k	30
Varaprasad	a055i00000Tdu	9239723	2k	35

[View Report \(translists Report\)](#)

Cancel Add

Add Component

Report

translists Report X

Use chart settings from report

Display As

grid bar line map treemap pivot

grid

123

Value

Sum of Subtot

Sliced By

translists: ID

Preview

translists Report

Sum of Subtot

translists: ID	Value
a055i00000Tdpac	500
a055i00000Tdulz	1.9k
a055i00000Tdv4o	2k
a055i00000TdvZb	1.4k
a055i00000Te0BX	1.3k
a055i00000UMUiA	2k

[View Report \(translists Report\)](#)

Cancel Add

Edit Component

Mode

Standard Dynamic ⓘ

Measure

Record Count ▾

Segment Ranges

0 ► [Red Bar]

10 ► [Orange Bar]

30 ► [Green Bar]

50 ► [Grey Bar]

Display Units

Sales Total

13 (26%)
(10 to 30)

View Report (translists Report)

Cancel Update

Dashboard on Item Object

New Dashboard

* Name
[Input Field]

Description
[Text Area]

Folder
Private Dashboards Select Folder

Cancel Create

Select Report

Reports

Recent

- Created by Me
- Private Reports
- Public Reports
- All Reports

Folders

- Created by Me
- Shared with Me
- All Folders

Select Report

Reports and Folders
Cancel
Select

Add Component

Report

Use chart settings from report i

Display As

Table
Bar
Gauge
Map

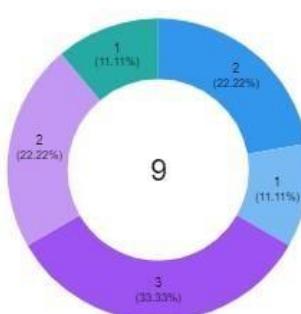
Line
Card
Donut
Grid

Value

Sliced By

Preview

prod_reports



Category	Count	Percentage
Crocs	1	(11.11%)
Face Mask	2	(22.22%)
Haldiram Sweet	2	(22.22%)
Oreo Mega pack	3	(33.33%)
Premium Perfume	1	(11.11%)

[View Report \(prod_reports\)](#)

Cancel
Add



CHAPTER 6

CONCLUSION

In conclusion, the development of an employee CRM applications for corporates is a critical step towards streamlining and enhancing the E-Commerce management process within organizations. This application serves as a centralized, efficient, and user-friendly tool for managing employee requests, approvals, and associated processes.

In building an employee CRM application, it's essential to engage relevant stakeholders, including HR, finance, and IT teams, to ensure that the application aligns with organizational goals and requirements. Furthermore, thorough testing and training should be conducted to guarantee a smooth and successful implementation.

By addressing these key points and creating a tailored CRM application that aligns with the unique needs and policies of the corporate, organizations can enhance their ECommerce management processes, improve cost control, and provide a more satisfying experience for employees and administrators alike.

CHAPTER-7

PROJECT DEMONSTRATION

Github:

<https://github.com/Tamil0101/NMPROJECT>

Demo link:

<https://youtu.be/N7zrc7WD2gc?si=tQpZi7lUxUZuZlpj>