

PROJECT REPORT ON
RETAIL MANAGEMENT APPLICATION USING
SALESFORCE (DEVELOPER) - (LONG -TERM)

Introduction:

Retailing encompasses the business activities involved in selling goods and services to consumers for their personal, family, or household etc. A CRM product owner has requested to create two applications, one is a sales app for sales reps to use this application and store customers data, and the second application is a service app for service reps/agents to provide support to customers in dealing cases. To generate business on top of the customer.

Milestone-01 : Introduction & Creation Salesforce Org

- Creating a developer org in salesforce
 - Go to [developers.salesforce.com/Signup](https://developer.salesforce.com/Signup)
 - Click on sign up.
 - On the sign up form, enter the following details :
 - First name & Last name : BOMIDI & JYOTHSNA
 - Email : jyothsnabomidi@gmail.com
 - Role : ADMIN
 - Company : Gayatri Degree College
 - County : India
 - Postal Code : 517501
 - Username : jyothsnabomidi@gdcproject.com
 - Click on sign up after filling this

>Login | Salesforce Developer Edition Signup | Sa... WhatsApp

developer.salesforce.com/signup

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First Name* Last Name*

Email*

Role*

Company*

Country/Region*

State/Province*

Postal Code*

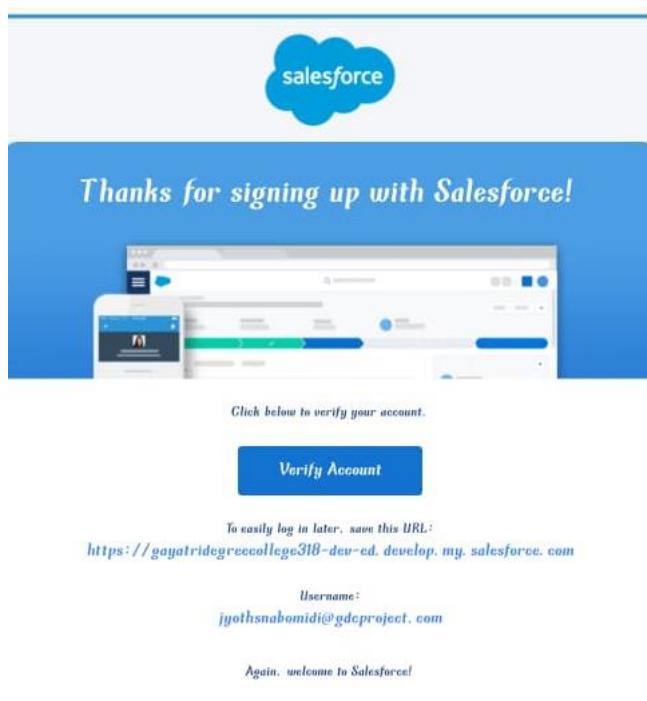
Username*

Your username must be in the form of an email address (it does not have to be real). It must be unique and cannot be associated with another Salesforce login credential. [Read more about username recommendations.](#)

I agree to the [Main Services Agreement – Developer Services](#) and [Privacy Statement](#).

12:47 20-04-2024 ENG IN

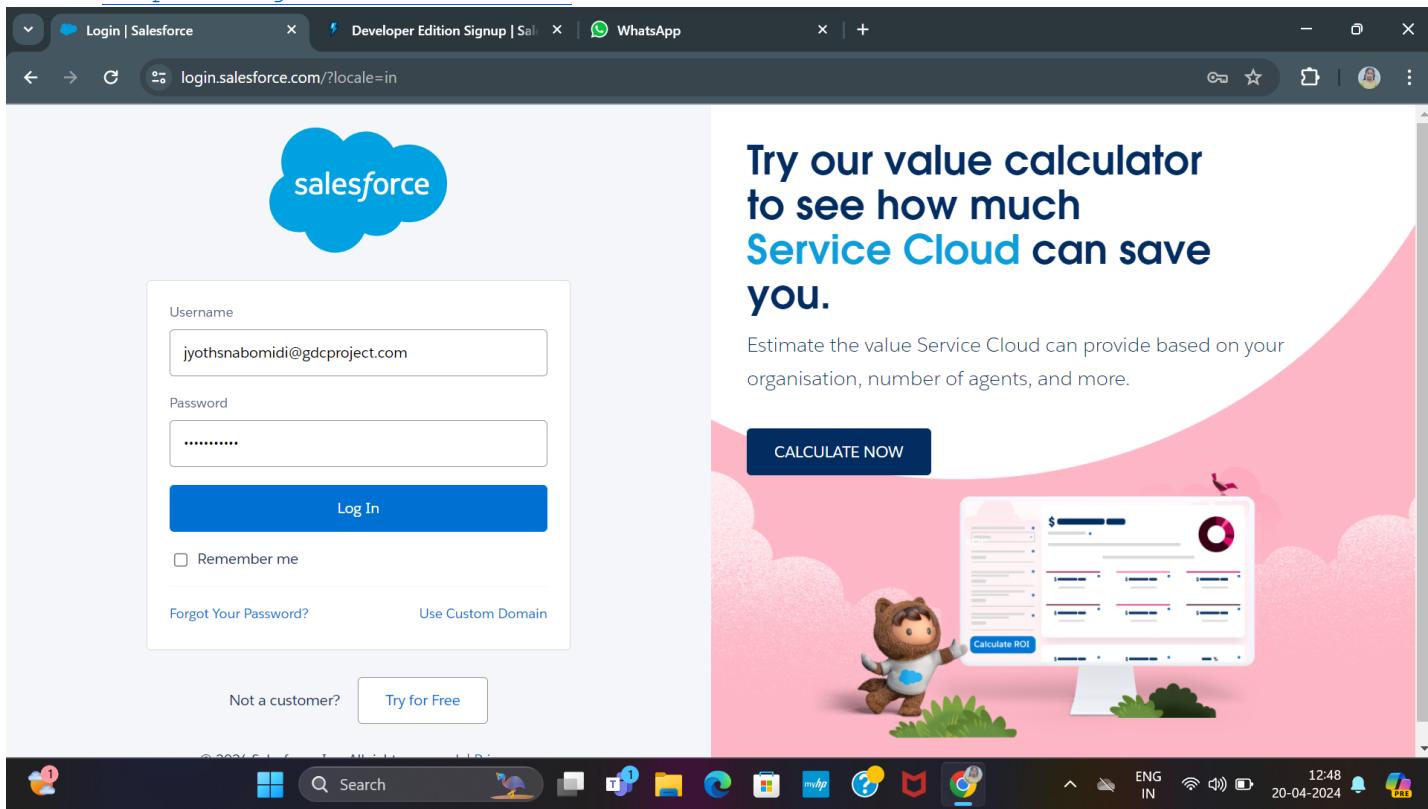
Account Activation



○ Login to your Salesforce Org

○ Salesforce Login:

<https://login.salesforce.com>



Milestone-02 : Object

1. Click on the gear icon and then select Setup.
2. Click on the object manager tab just beside the home tab.
3. After the above steps, have a look on the extreme right you will find a Create Dropdown click on that and select Custom Object.
4. On the Custom Object Definition page, create the object as follows:
 5. Label: Warehouse
 6. Plural Label: Warehouses
 7. Record Name: Warehouse Name
 8. Check the Allow Reports checkbox
 9. Check the Allow Search checkbox

10. Click Save

○ In the same way create **2** more objects as Sales order, Dispatch/Tracking.

○ **Creation of object : Sales order**

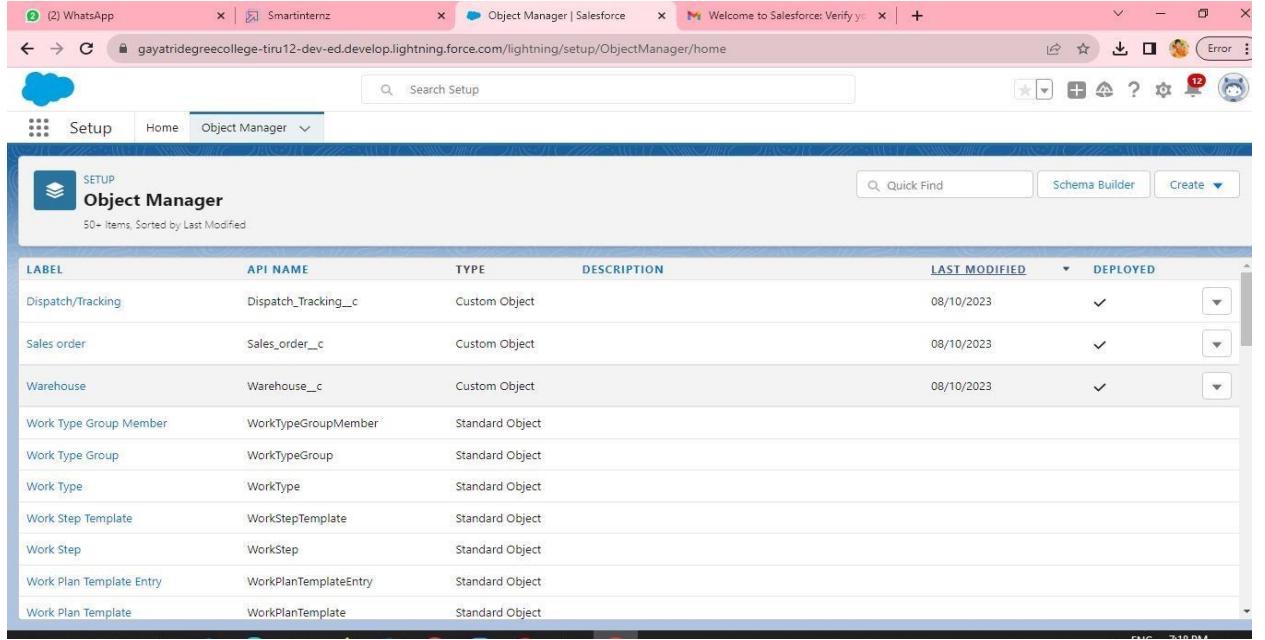
1. Click on the gear icon and then select Setup.
2. Click on the object manager tab just beside the home tab.
3. After the above steps, have a look on the extreme right you will find a Create Dropdown click on that and select Custom Object.
4. On the Custom Object Definition page, create the object as follows:
5. Label: Sales order
6. Plural Label: Sales orders
7. Record Name: Sales order Number
8. Check the Allow Reports checkbox
9. Check the Allow Search checkbox
10. Click Save

○ **Creation of Object : Dispatch/Tracking**

1. Click on the gear icon and then select Setup.
2. Click on the object manager tab just beside the home tab.
3. After the above steps, have a look on the extreme right you will find a Create Dropdown click on that and select Custom Object.
4. On the Custom Object Definition page, create the object as follows:
5. Label: Warehouse
6. Plural Label: Dispatch/Trackings
7. Record Name: Tracking Name

8. Check the Allow Reports checkbox
9. Check the Allow Search checkbox
10. Click Save.

OBJECTS CREATED:



The screenshot shows the Salesforce Object Manager page. The page title is "Object Manager". It displays a table of objects with the following columns: Label, API Name, Type, Description, Last Modified, and Deployed. The objects listed are:

LABEL	API NAME	TYPE	DESCRIPTION	LAST MODIFIED	DEPLOYED
Dispatch/Tracking	Dispatch_Tracking_c	Custom Object		08/10/2023	✓
Sales order	Sales_order_c	Custom Object		08/10/2023	✓
Warehouse	Warehouse_c	Custom Object		08/10/2023	✓
Work Type Group Member	WorkTypeGroupMember	Standard Object			
Work Type Group	WorkTypeGroup	Standard Object			
Work Type	WorkType	Standard Object			
Work Step Template	WorkStepTemplate	Standard Object			
Work Step	WorkStep	Standard Object			
Work Plan Template Entry	WorkPlanTemplateEntry	Standard Object			
Work Plan Template	WorkPlanTemplate	Standard Object			

Milestone-03 : What Is A Tab?

Tabs in Salesforce help users view the information at a glance. It displays the data of objects and other web content in the application.

Create A Tab For Warehouse Object

1. Enter Tabs in Quick Find and select Tabs.
2. Under Custom Object Tabs, click New.
3. For Object, select Warehouse.
4. For Tab Style, select any icon.

- Leave all defaults as is. Click Next, Next, and Save

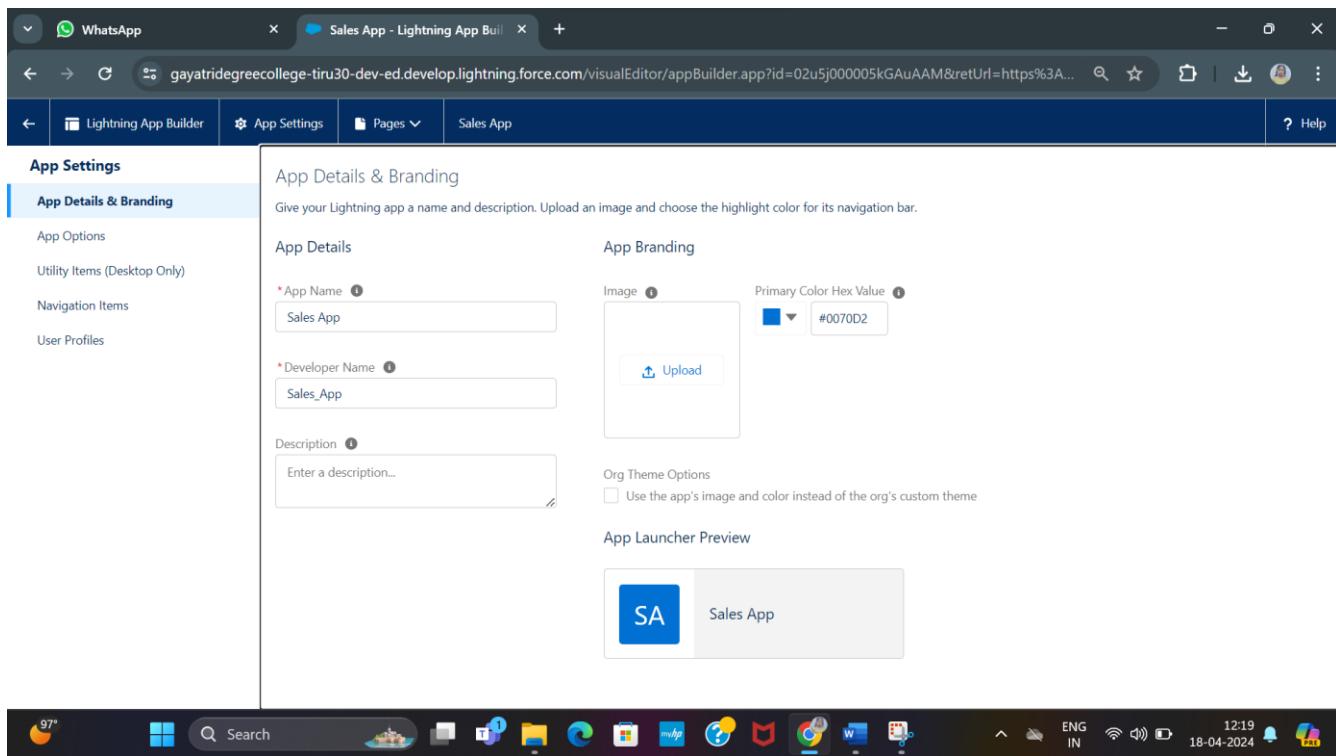
A Tab For Sales order Object,Dispatch/Tracking,Warehouse

Action	Label	Tab Style	Description
Edit Del	Dispatch/Tracking	Apple	
Edit Del	Sales orders	Bell	
Edit Del	Warehouses	Heart	

Milestone-04 : What Is An App

□ Create The Sales App

- From Setup, enter App Manager in the Quick Find and select App Manager.
- Click New Lightning App.
- Enter Sales App as the App Name, then click Next
- Under App Options, leave the default selections and click Next.
- Under Utility Items, leave as is and click Next.
- From Available Items, select Campaign, Leads, Accounts, Contacts, Opportunities, Products, Warehouse, Sales order, Dispatch/Tracking, Reports, and Dashboards and move them to Selected Items. Click Next.
- From Available Profiles, select System Administrator and move it to Selected Profiles. Click Save & Finish.



Milestone- 05 : Fields And Relationship

□ Creation Of Fields For The Dispatch/Tracking Object

1. Click the gear icon and select Setup. This launches Setup in a new tab.
2. Click the Object Manager tab next to Home.
3. Select Dispatch/Tracking
4. Select Fields & Relationships from the left navigation
5. Click New
6. Select the Text as the Data Type, click Next.
7. For Field Label, enter Tracking ID & length = 40.
8. Click Next, Next, then Save & New.

The screenshot shows the Salesforce Object Manager interface for the 'Dispatch/Tracking' object. The left sidebar has a 'Fields & Relationships' section. The main area displays a table titled 'Fields & Relationships' with the following data:

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Created By	CreatedById	Lookup(User)		
Dispatch/Delivery	Dispatch_Delivery__c	Text(40)		
Dispatch/Tracking Name	Name	Text(80)		✓
Last Modified By	LastModifiedById	Lookup(User)		
Sales order	Sales_order__c	Master-Detail(Sales order)		✓
Tracking ID	Tracking_ID__c	Text(40)		
Warehouse	Warehouse__c	Text(40)		

□ Create A Master-Detail Relationship On Dispatch/Delivery Object

1. Select Master-Detail Relationship as the Data Type and click Next.
2. For Related to, enter Sales order.
3. Click Next.
4. For Field Label, enter Sales order.
5. Click Next, Next, Next and Save.

□ Create A Pick-List Field On Sales Order

1. From Setup, click Object Manager and select Sales order.
2. Click Fields & Relationships, then New.
3. Select Picklist as the Data Type and click Next.
4. For Field Label enter Status
5. Select Enter values, with each value separated by a new line and enter these values:

6. Open
7. Hold
8. Shipped
9. Returned
10. Click Next, Next, then Save & New.

□ Create A Lookup Relationship On Sales Order Object With Account Object

1. Follow steps 1 to 5 of field creation then follow below steps.

The screenshot shows the Salesforce Setup interface for the 'Sales Order' object. The left sidebar has 'Fields & Relationships' selected. The main area displays a table of fields:

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD
Contact	Contact_c	Lookup(Contact)	
Created By	CreatedById	Lookup(User)	
Customer	Customer_c	Lookup(Account)	
Email id	Email_id_c	Email	
Last Modified By	LastModifiedById	Lookup(User)	
Order confirmed	Order_confirmed_c	Picklist	
Order date	Order_date_c	Date	
Owner	OwnerId	Lookup(User,Group)	

2. Select look up Relationship as the Data Type and click Next.
3. For Related to, enter Account.
4. Click Next.
5. For Field Label, enter Customer.
6. Click Next, Next, Next and Save.

□ Create A Lookup Relationship On Sales Order Object With Contact Object

With Use Of Lookup Filter.

1. Select look up Relationship as the Data Type and click Next.
2. For Related to, enter Contact.
3. Click Next.
4. For Field Label, enter Contact.
5. Click lookup filter.
6. Provide filter as given below & also refer picture (Screenshot of Step 6)
7. Contact: Account ID equals Sales Order: Customer
8. Click Next, Next, Next and Save.

† Create Order Date Field On Sales Order

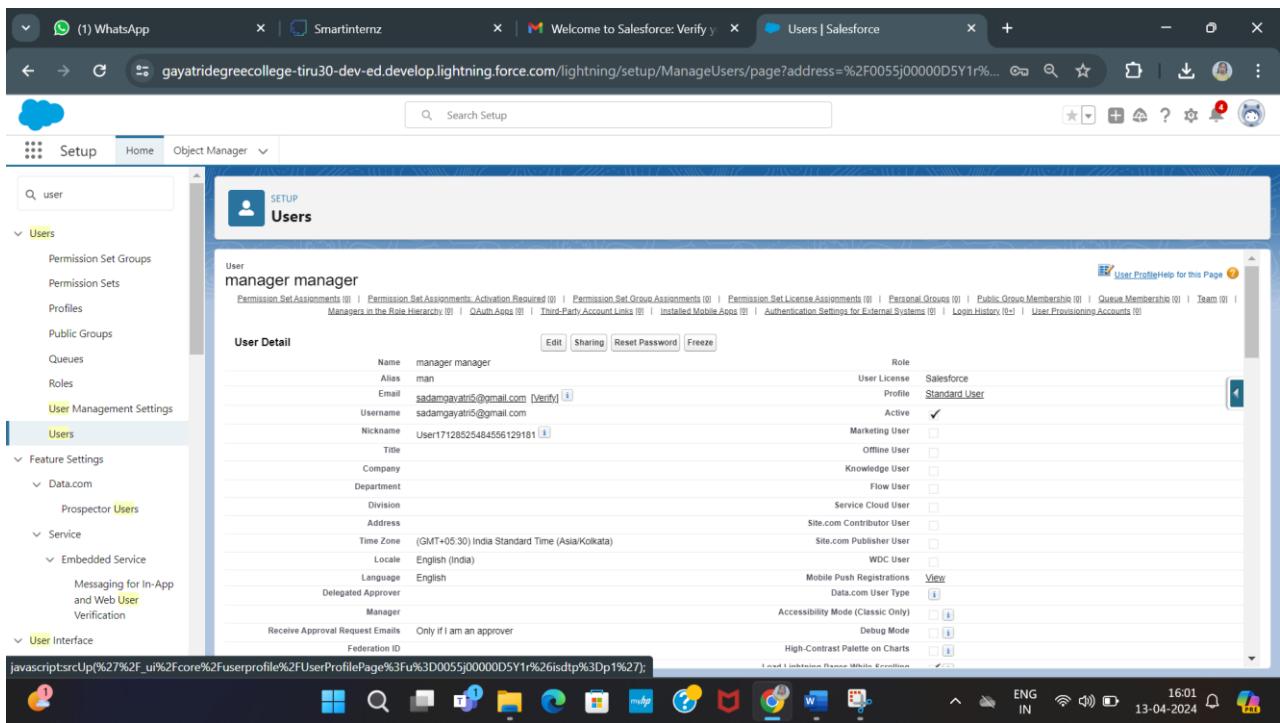
1. Click the gear icon and select Setup. This launches Setup in a new tab.
2. Click the Object Manager tab next to Home.
3. Select Sales Order
4. Select Fields & Relationships from the left navigation
5. Click New
6. Select the Date as the Data Type, click Next.
7. For Field Label, enter Order date.
8. Click Next, Next, then Save & New.

† Cross-Object Formula Field

1. Select your object from object selection has Contact.
2. And select the option fields and relationships.
3. At the top right side you can find a new select that option.
4. Now you have to select data type as formula.
5. At the top right side you can find a new select that option.
6. Now you have to select data type as formula.
7. At the top right side you can find a new select that option.
8. Now you have to select data type as formula.

Creating A User

1. From Setup, in the Quick Find box, enter Users.
2. Select Users.
3. Click New User.
4. Enter the First Name and Last Name manager and (Your) email address and a unique username in the form of an email address. By default, the username is the same as the email address.
5. Select a User License as Salesforce
6. Select Standard User profile.
7. Check Generate new password and notify the user immediately to have the user's login name and a temporary password emailed to your email.



Milestone-07 : Validation Rules

Creation Of Validation Rule

1. Navigate to object manager and select Account object.
2. In details section scroll down and find validation rule in it.

3. Click new, give the label name and in edit error conditional formula give the formula
 - LEFT(Phone, 1) <> "+".
4. And in error message give the description has Phone number must begin with + (country code).
5. In error location select field.
6. Save

The screenshot shows the Salesforce Setup interface with the following details:

- Page Header:** WhatsApp, Account | Salesforce
- Search Bar:** Search Setup
- Left Sidebar:** Object Manager (Account)
- Table Headers:** Validation Rules, RULE NAME, ERROR LOCATION, ERROR MESSAGE, ACTIVE, MODIFIED BY
- Table Data:**

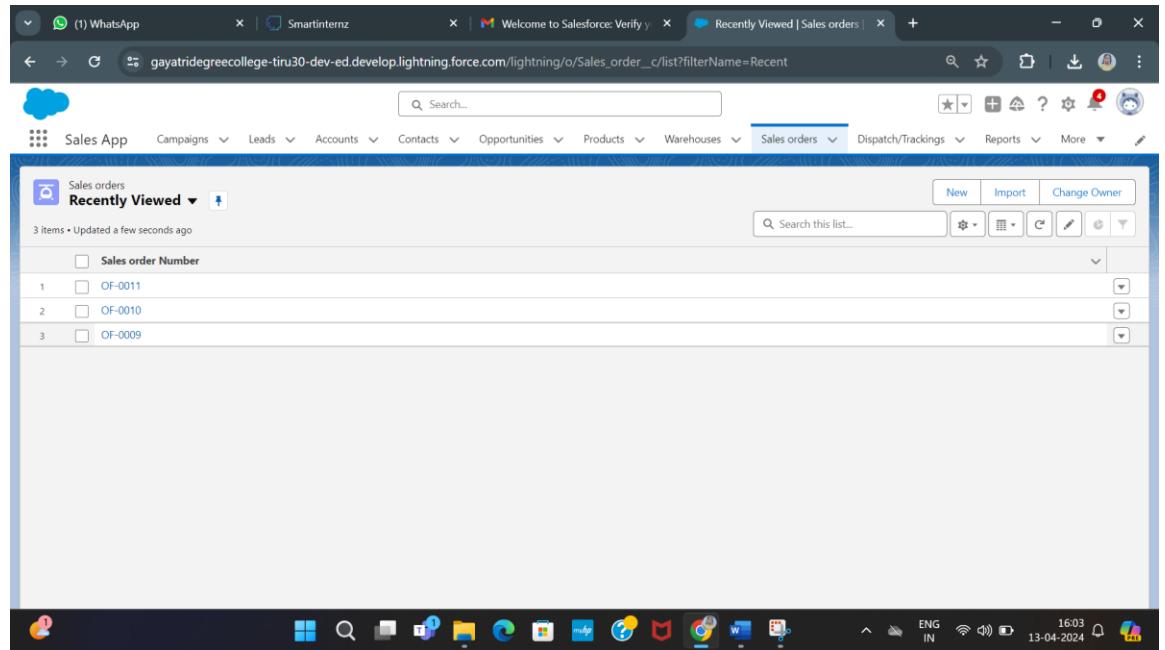
RULE NAME	ERROR LOCATION	ERROR MESSAGE	ACTIVE	MODIFIED BY
Phone_number_has_international_format	Phone	Phone number must begin with + (country code)	✓	GAYATHRI SADAM, 11/04/2024, 10:04 pm
- System Status Bar:** ENG IN, 12:14, 18-04-2024

Milestone-08 : User Adoption

• Create Record (Sales Order)

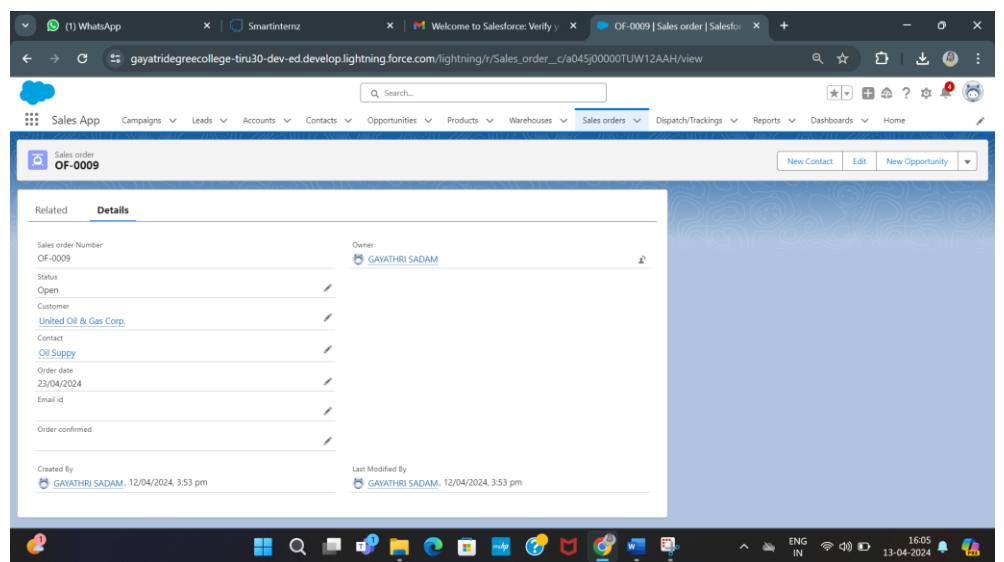
1. Click on App Launcher on left side of screen.
2. Search Sales App & click on it.
3. Click on Sales Order tab.
4. Click new button
5. Fill all Sales Order record details.

6. Click on Save Button



• View Record (Sales Order)

1. Click on App Launcher on left side of screen.
2. Search Sales App & click on it.
3. Click on Sales Order Tab.
4. Click on any record name. you can see the details of the Sales Order



• Delete Record (Sales Order)

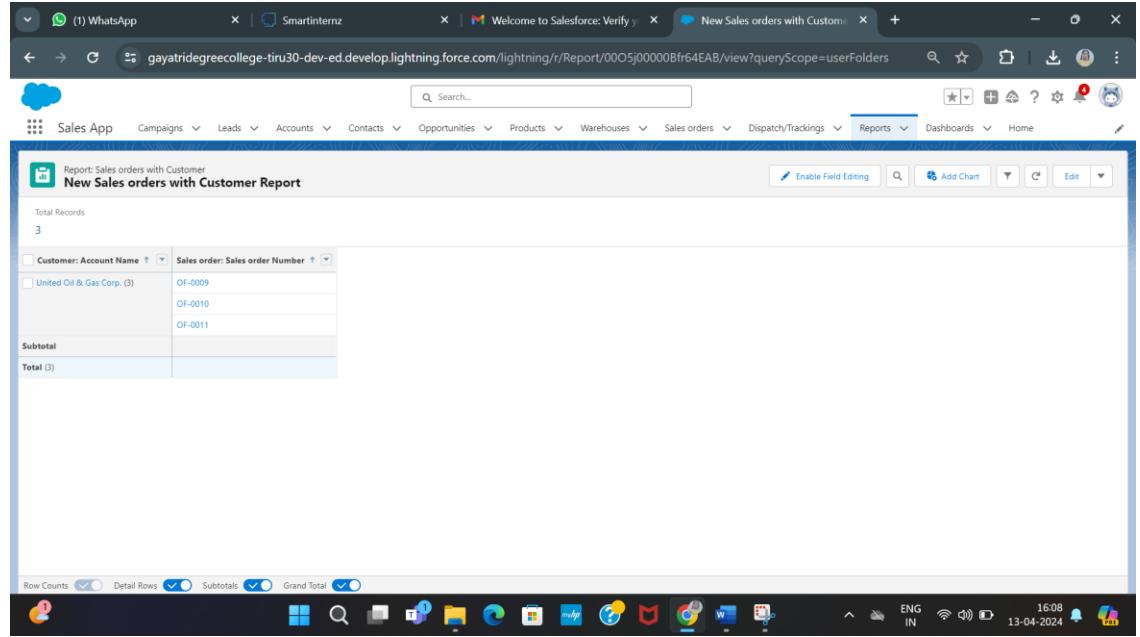
1. Click on App Launcher on left side of screen.

2. Search Sales App & click on it.
3. Click on Sales Order Tab.
4. Click on Arrow at right hand side on that Particular record.
5. Click delete and delete again.

Milestone-09 : Reports

• Create Report

1. Click App Launcher and
2. Select Sales App
3. Click reports tab
4. Click New Report.
5. Click the report type as Sales order with customer Click Start report.
6. Customize your report, in group rows select - Customer Account Name
7. Click refresh
8. Click save and run
9. Give report name – New Sales orders with Customer Report
10. Click Save



• View Report

1. Click on App Launcher on left side of screen.
2. Search “Sales App” & click on it.
3. Click on Reports Tab.
4. Click on New Sales orders with Customer Report and see records.

Milestone-10 : Dashboards

⊕ Create Dashboard

1. Click on Dashboards tab from the “Sales App” application,
2. Click on new dashboard
3. Give name- Sales App Dashboard
4. Click create
5. Give your dashboard a name and click on +component.
6. Select the New Sales orders with Customer Report which you created.
7. For the data visualization select any of the chart, table etc as your wish.

8. Click add

9. Click save

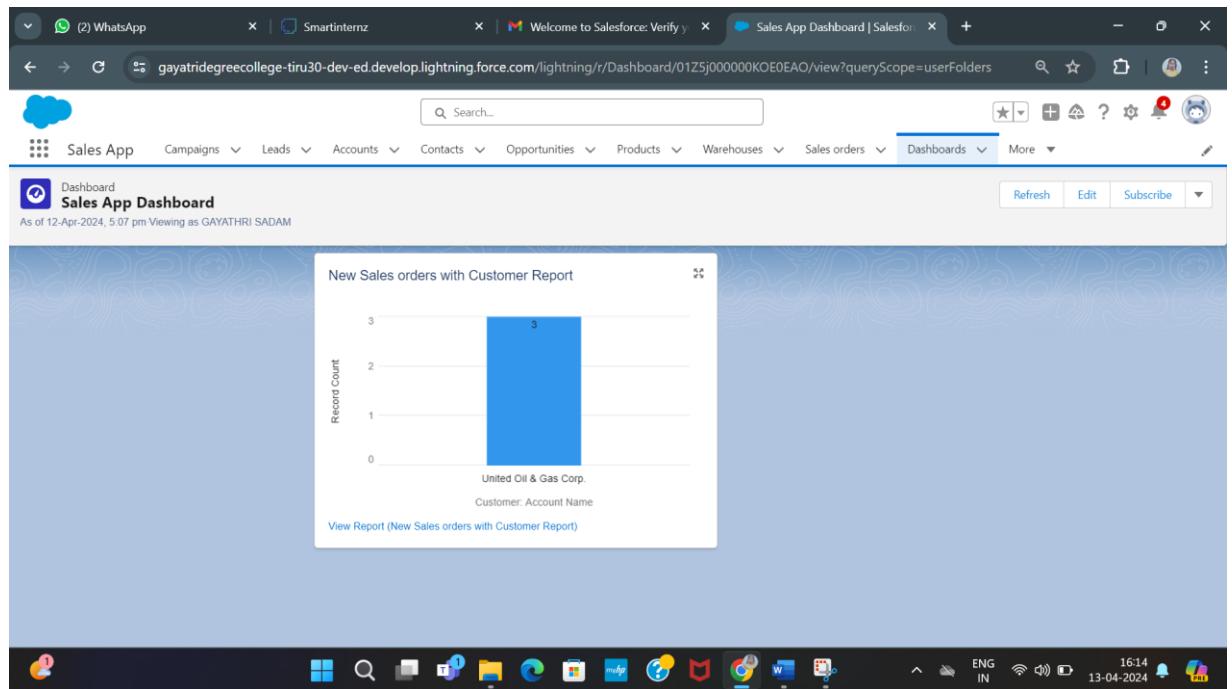
⊕ View Dashboard

1. Click on App Launcher on left side of screen.

2. Search Sales App & click on it.

3. Click on Dashboard Tab.

4. Click on Sales App Dashboard and see graph view of records



Milestone-11 : Flows

⊕ Create Flow

1. Click on setup gear

2. In quick find search for Flows

3. Choose new flow option at right side of the page

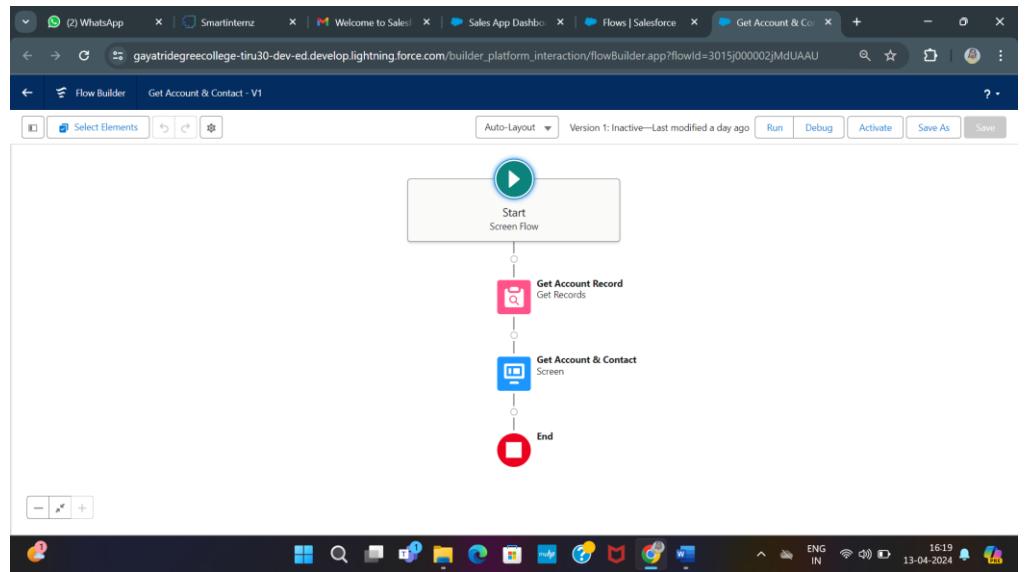
4. Now select screen flow as a new flow

5. Left side corner of the page you can find a toggle click on that and select a new resource

6. and select resource type has variable

7. Give api name as Recordid
 8. and select data type as Text
9. At bottom for Availability outside the flow check the box as Available for Input
10. Click on done
1. Now below the start button click on add element and choose Get Records
 - a. Now give the label name as Get Account Record
 - b. For Get record of object choose object as - Account
 - c. For Filter account records condition requirements are - All conditions are met
 - d. Field- Account id Operator- equals Value- Recordid (variable which we had created)
 - e. For how many records to share - Only the first record
 - f. How to store record data- Automatically stores all fields.
 - g. Click on done.
 - h. Now again add the element below the Get account record and select Screen as your element
 - i. Give the label name as Get Account & Contacts
 - j. Left side in the component section search for Name and drag it to the screen
 - k. Give the api name as Name
 - l. Now drag Email from component section and move it to the screen
 - m. Give the Api name- Email
 - n. Required - {!\$GlobalConstant.True}
 - o. Now drag the Phone from component to screen below the email
 - p. Give the Api name as - Phone
 - q. Required- {!\$GlobalConstant.True}
 - r. Now Drag Address from component section to screen

- s. Give the Api name as - Address
- City Value- {!Get_Account_Record.ShippingCity}
 - Country Value- {!Get_Account_Record.BillingCountry}
 - Postal code- {!Get_Account_Record.ShippingPostalCode}
 - State/province value- {!Get_Account_Record.ShippingState}
 - Street Value- {!Get_Account_Record.ShippingStreet}
 - Click on done and save it. Give the label name as Get Account & Contact

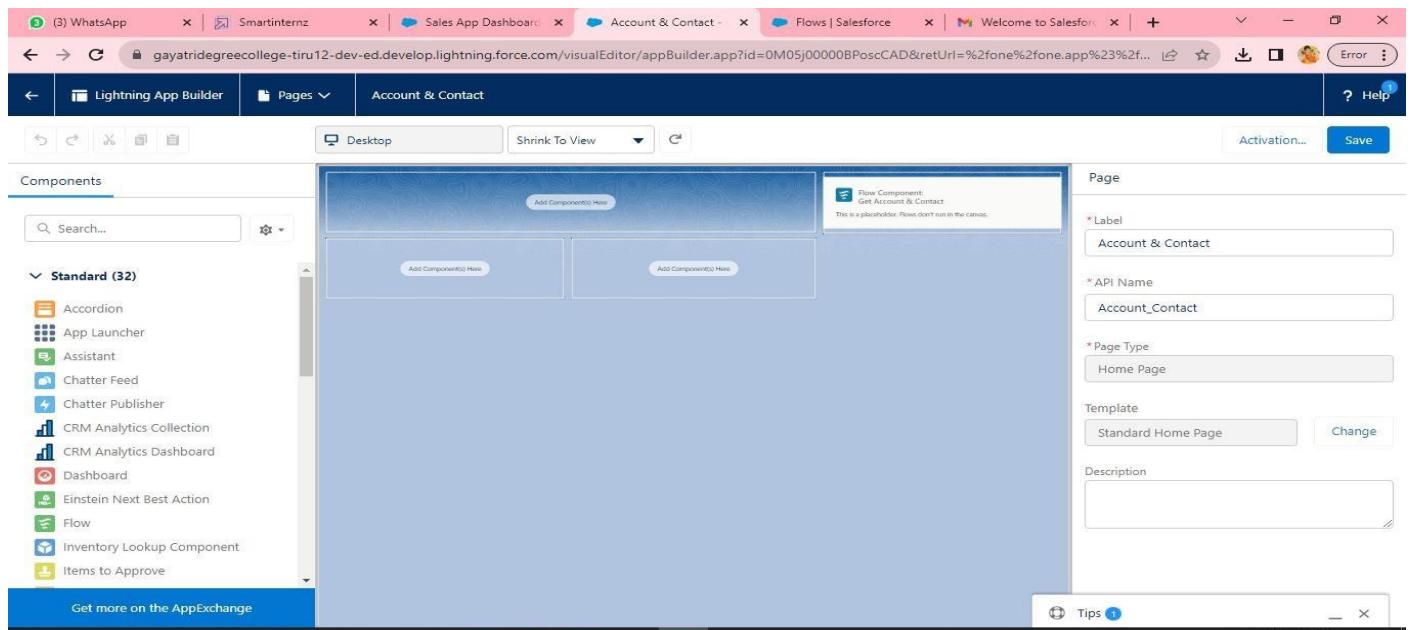


† To Create Lightning Home Page

- Click on setup gear.
- Now search for lightning App builder.
- And select New option
- In create a new lightning page select Home page.
- Select Next
- Give the label name - Account & Contact
- Choose a standard home page.

8. Now in the component section select flow and drag down it to Corner of the page.
9. At the right side select the flow Get Account & Contact
10. at the right side top of the page click on Save.
11. You will get the populate notification and click on activate.
12. you will get an activation pop up select App and profile.
13. Select Sales app in lightning app selection.
14. In profiles select System administrator, Standard user, Standard platform user.

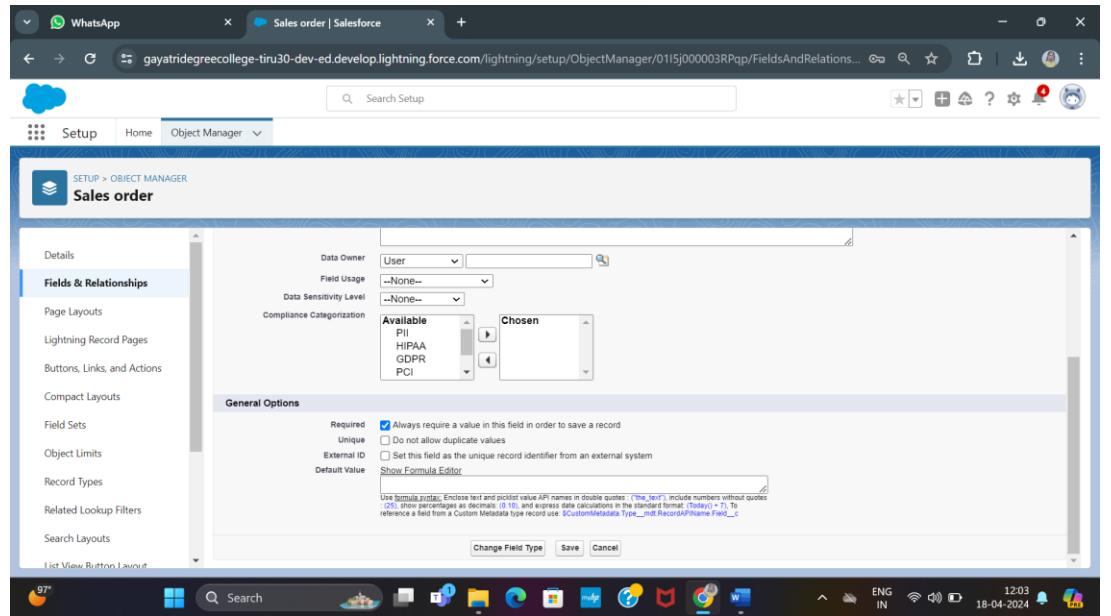
15. Save it.



† To Send An Email Alert To The Customer Once Order Is Confirmed

- a. Navigate to setup click on object manager
- b. Select sales order as object
- c. click on fields and relationships
- d. Select Email id field and click on edit
- e. Than in general options select Required Field

f. Save it

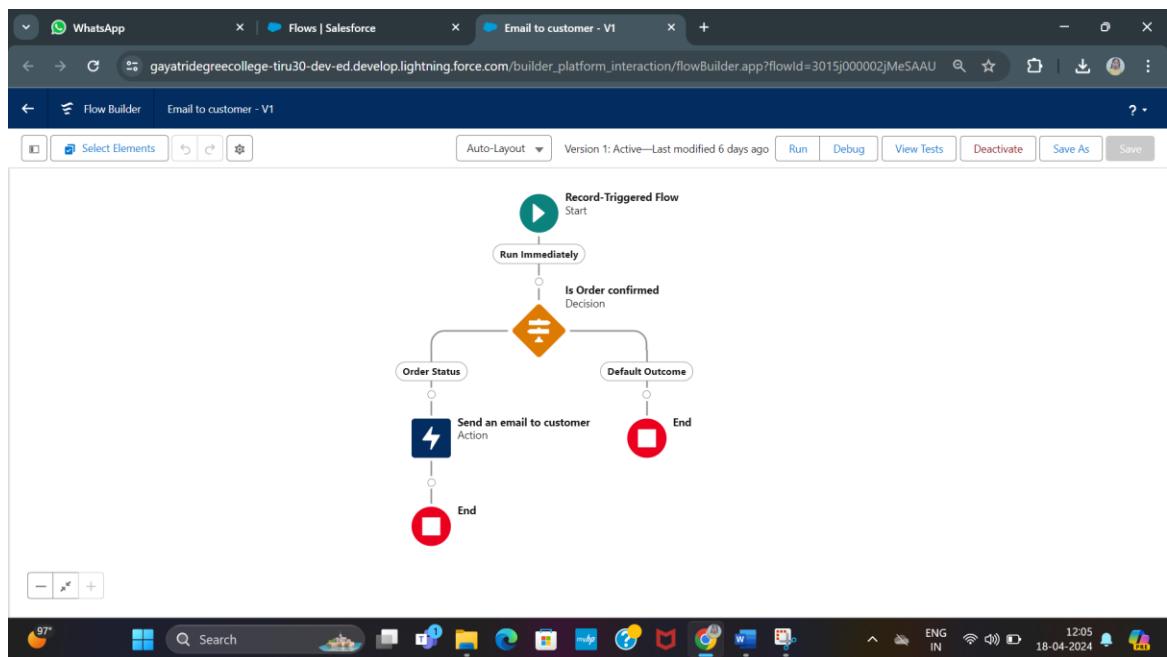


- g. Now Create a new field Order confirmed
- h. On the same object sales order create a Picklist field.
- i. Give the label name as Order confirmed.
- j. And in Values give 1) Yes
- 2) No
- k. Make it as Required field.

† To Create Record Trigger Flow

1. Click on setup and search for flows.
2. Than click on new flow
3. Select Record Trigger flow as your flow
4. In Object search for Sales order
5. In Configure Trigger select A record is created
6. In set entry conditions All conditions are Met
7. In fields search for Order confirmed
8. Operator - Equals
9. In values select - Yes

10. In optimize the flow for Select Action and related Records
11. Now click on add element and in Logic section select Decision element
12. Give the element name as Is Order confirmed
13. In Outcome Details Label as Order Status
14. In condition requirement All Conditions are Met
15. In resource select \$Record than field as Order confirmed
16. Operator - Equals
17. Value as Yes
18. Click on done
19. Now Below the Order status Click on add element and select Action as your element.
20. Now in action select Send email
21. Give the label as Send an email to customer
22. Now in body select \$Record and than select Id
23. Now in body select \$Record and than select Id
24. Move your cursor to front before \$record and give the text as Hi Your order with than comes \$record is confirmed
25. In recipients email address list - select Record and than Email id as your field
26. In subject give it as - Order confirmed.
27. Click on done.
28. Save the flow as Email to customer
29. And activate the flow.



Milestone-12 : Triggers

† Trigger On Account To Prevent Duplicate Name

1. Click on Setup and select developer console
2. Click on file and than New
3. Select Apex Class give the name

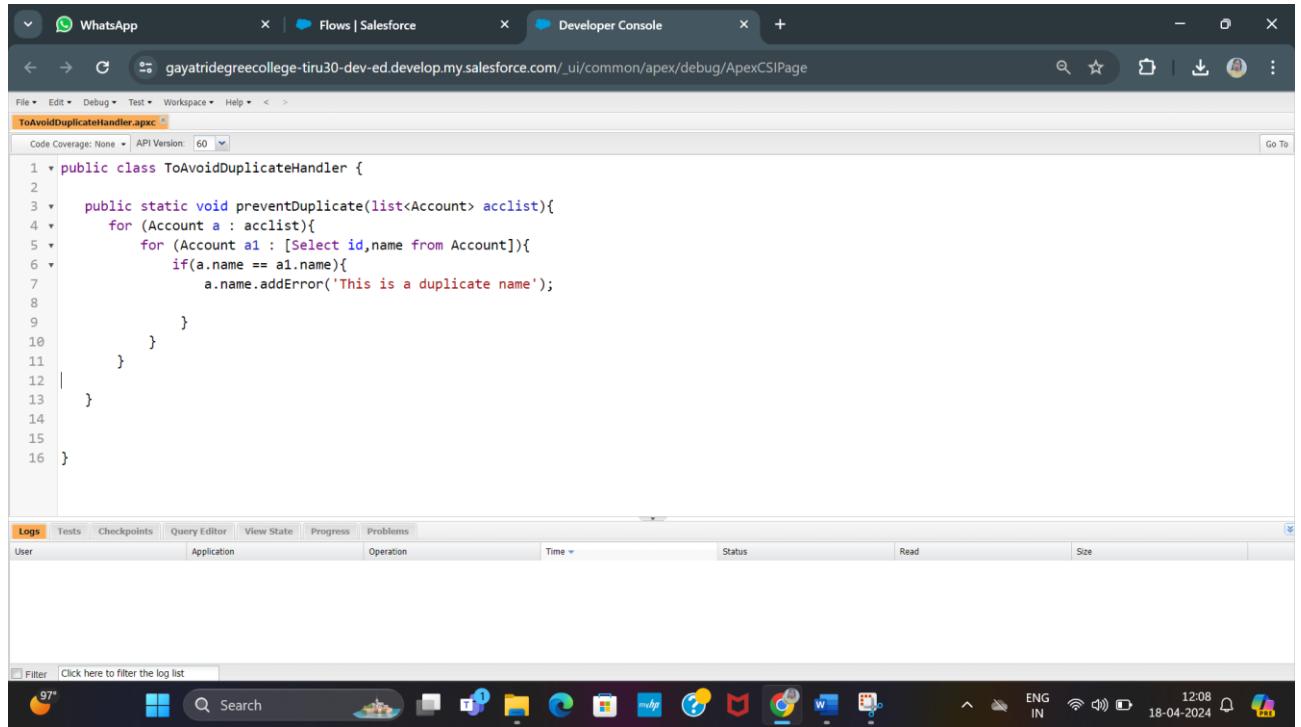
CODE:

```

public class ToAvoidDuplicateHandler {

    public static void preventDuplicate(list<Account> acclist) {
        for (Account a : acclist){
            for (Account a1 : [Select id,name from Account]){
                if(a.name == a1.name){
                    a.name.addError('This is a duplicate name');
                }
            }
        }
    }
}

```



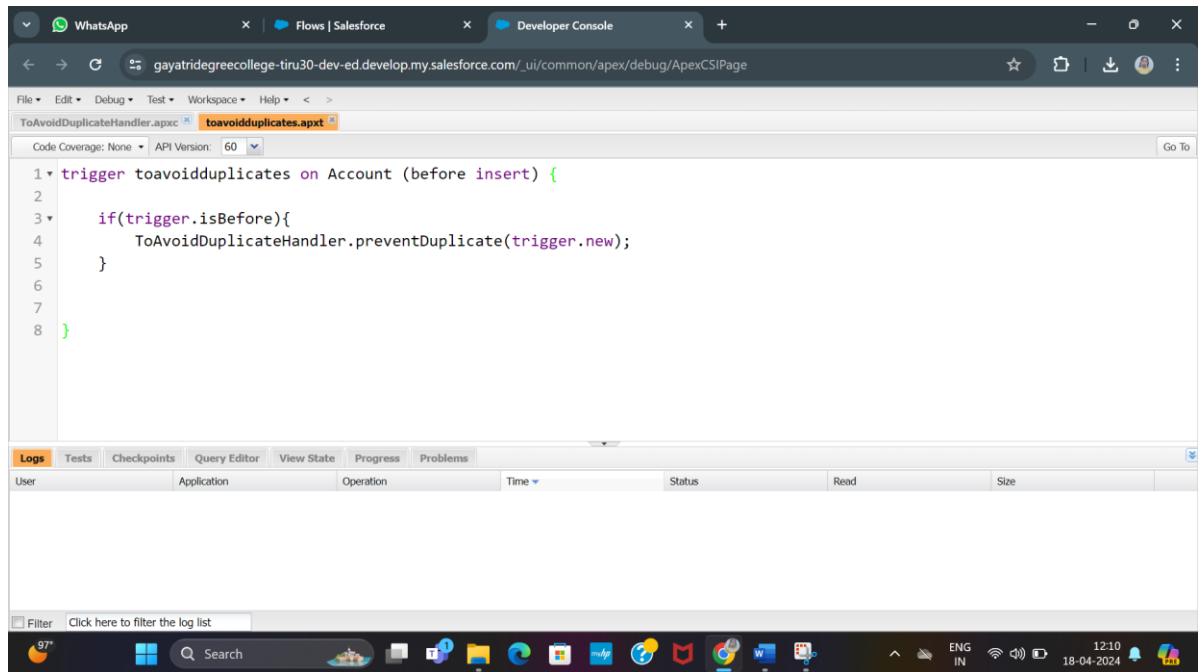
```
1 public class ToAvoidDuplicateHandler {  
2     public static void preventDuplicate(list<Account> acclist){  
3         for (Account a : acclist){  
4             for (Account a1 : [Select id,name from Account]){  
5                 if(a.name == a1.name){  
6                     a.name.addError('This is a duplicate name');  
7                 }  
8             }  
9         }  
10    }  
11 }  
12 }  
13 }  
14 }  
15 }  
16 }
```

The screenshot shows the Salesforce Developer Console interface. The top navigation bar includes tabs for WhatsApp, Flows | Salesforce, and Developer Console. The URL in the address bar is `gayatridgeeconomics-tiru30-dev-ed.develop.my.salesforce.com/_ui/common/apex/debug/ApexCSIPage`. The main content area displays an Apex class named `ToAvoidDuplicateHandler.apxc`. The code implements a static method `preventDuplicate` that iterates through a list of accounts. For each account, it queries for other accounts with the same name. If a match is found, it adds an error message to the account's name field. The code editor has syntax highlighting and line numbers. Below the code, there are tabs for Logs, Tests, Checkpoints, Query Editor, View State, Progress, and Problems. The Logs tab is selected. The bottom of the screen shows the Windows taskbar with various application icons and system status indicators.

Trigger

1. Click on Setup and select developer console
2. Click on file and than New
3. Select Apex trigger give the name as Toavoidduplicates

4. Sobject as Account.



The screenshot shows the Salesforce Developer Console interface. The top navigation bar includes tabs for WhatsApp, Flows | Salesforce, and Developer Console. The main area displays a trigger named 'ToAvoidDuplicateHandler.apxc' with the specific file name 'toavoidduplicates.apxt'. The code editor contains the following Apex trigger:

```
trigger toavoidduplicates on Account (before insert) {
    if(trigger.isBefore){
        ToAvoidDuplicateHandler.preventDuplicate(trigger.new);
    }
}
```

Below the code editor, there is a tabs bar with 'Logs' selected, followed by Tests, Checkpoints, Query Editor, View State, Progress, and Problems. At the bottom of the screen, a taskbar shows various application icons, and the system status bar indicates the date as 18-04-2024 and the time as 12:10.

CODE:

```
trigger toavoidduplicates on Account (before insert) {
    if(trigger.isBefore){
        ToAvoidDuplicateHandler.preventDuplicate(trigger.new);
    }
}
```

THE END