

**KALLAM HARANADHAREDDY INSTITUTE OF
TECHNOLOGY
(AUTONOMOUS)**

A CRM APPLICATION TO ENGINEERING WORK

By

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Project Abstract

This project focuses on developing a CRM application designed to manage client information for engineering projects. The application will store and organize essential details such as company information, owner and contact details, worker profiles, and their material requirements, including specific measurements. It will automatically calculate costs based on these material specifications.

The application will support various engineering works, including Fabrication, Shed Construction, and Pipe Lining. Within the Fabrication work, it will track processes like Drilling, Welding, Cutting, and Folding. For Shed Construction, it will manage the planning and building of sheds, and for Pipe Lining, it will handle tasks related to pipe repairs and replacements.

By efficiently tracking and managing these workflows, the application will help ensure accurate project delivery, improve organization, and streamline cost calculations, making it easier for engineering companies to handle their projects from start to finish.

Introduction

The Engineering Works CRM Application is designed to help engineering companies efficiently manage client information and project workflows. It will store essential details such as client company information, owner and contact details, worker profiles, and material requirements with accurate measurements. The application will also automatically calculate prices based on the materials used.

It will support various engineering services, including Fabrication (Drilling, Welding, Cutting, and Folding), Shed Construction, and Pipe Lining (repairing and replacing pipes). By automating these processes and organizing data, the application aims to streamline project management, enhance accuracy, and improve efficiency, ultimately helping engineering companies deliver quality services to their clients.

Objectives

1. Efficiently manage client, project, and worker information for engineering tasks.
2. Automate material and cost calculations based on project requirements.
3. Track and monitor the progress of engineering tasks in real time.
4. Streamline labour and material management across fabrication, shed construction, and pipe lining.
5. Generate detailed reports and invoices for clients with accurate cost breakdowns.
6. Enhance project collaboration through user roles and access management.
7. Provide real-time updates and notifications on project status and resource usage.

Salesforce Key Features and Concepts Utilized

1. **Org Creation:** Setup a Salesforce Org as the foundation for project management.
2. **Objects:** Use standard (Accounts, Contacts) and custom objects (Projects, Workers, Materials, Tasks).
3. **Tabs:** Create custom tabs for easy navigation between Projects, Workers, Materials, and Tasks.
4. **Lightning App Builder:** Customize user interfaces and apps for different roles.
5. **Fields:** Add custom fields to capture project-specific data (e.g., material quantities, task hours).
6. **Page Layouts:** Design custom layouts for each object type to display key information effectively.
7. **Record Types:** Define different business processes for various types of projects and tasks.
8. **Validation Rules:** Ensure data quality by setting rules for budgets, material quantities, and task duration.
9. **Email Templates:** Automate communication with clients and workers through pre-defined templates.
10. **Flows:** Automate critical processes like task assignments, material orders, and cost calculations using Salesforce Flows.

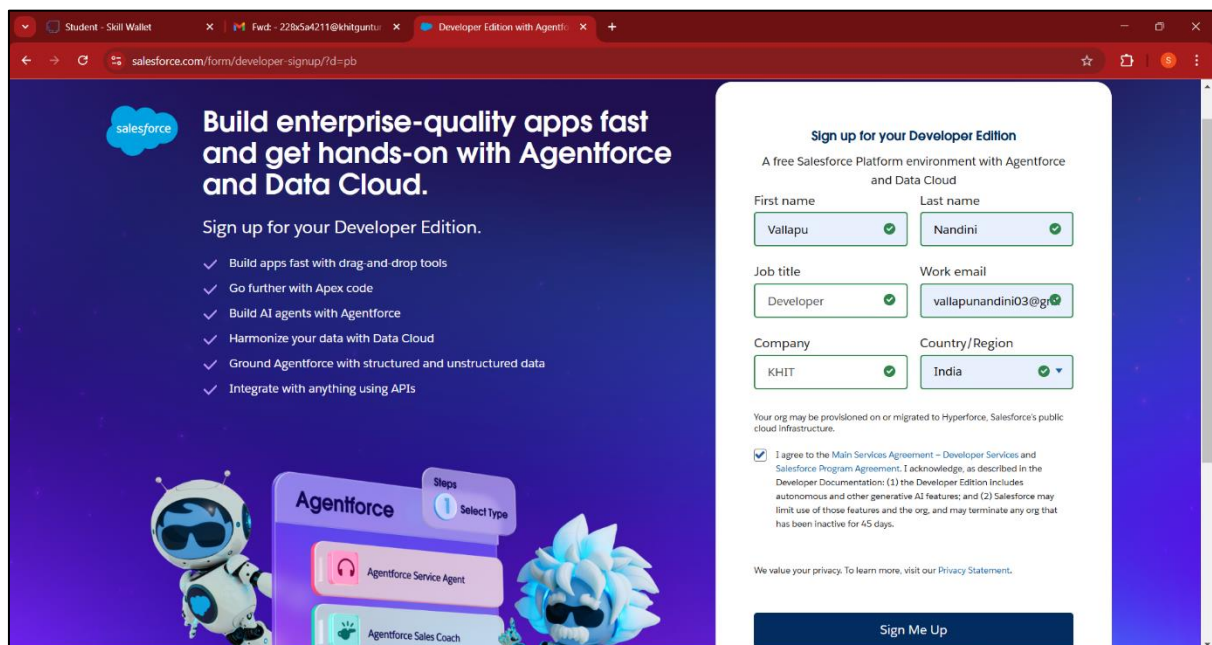
Detailed Steps to Solution Design

Salesforce developer account creation:

➤ Creating Developer Account:

Creating a developer org in salesforce.

1. Go to <https://developer.salesforce.com/signup>
2. On the sign up form, enter the following details:
 - First name : Vallapu
 - Last name : Nandini
 - Email : vallapunandini03@gmail.com
 - Role: Developer
 - Company: KHIT
 - County: India
 - Postal Code: 522034



The screenshot shows the Salesforce Developer Edition sign-up page. The left side features a blue background with the Salesforce logo and text: "Build enterprise-quality apps fast and get hands-on with Agentforce and Data Cloud." Below this, it says "Sign up for your Developer Edition." and lists five benefits: "Build apps fast with drag-and-drop tools", "Go further with Apex code", "Build AI agents with Agentforce", "Harmonize your data with Data Cloud", and "Ground Agentforce with structured and unstructured data". At the bottom left, there are illustrations of Agentforce Service Agent and Agentforce Sales Coach. The right side is a white form titled "Sign up for your Developer Edition" with the subtitle "A free Salesforce Platform environment with Agentforce and Data Cloud". The form fields are: First name (Vallapu), Last name (Nandini), Job title (Developer), Work email (vallapunandini03@gmail.com), Company (KHIT), and Country/Region (India). Below the form, there is a checkbox for "I agree to the Main Services Agreement - Developer Services and Salesforce Program Agreement" and a "Sign Me Up" button.

- Username: engineeringworks@nandiniteam.com

Account Activation :

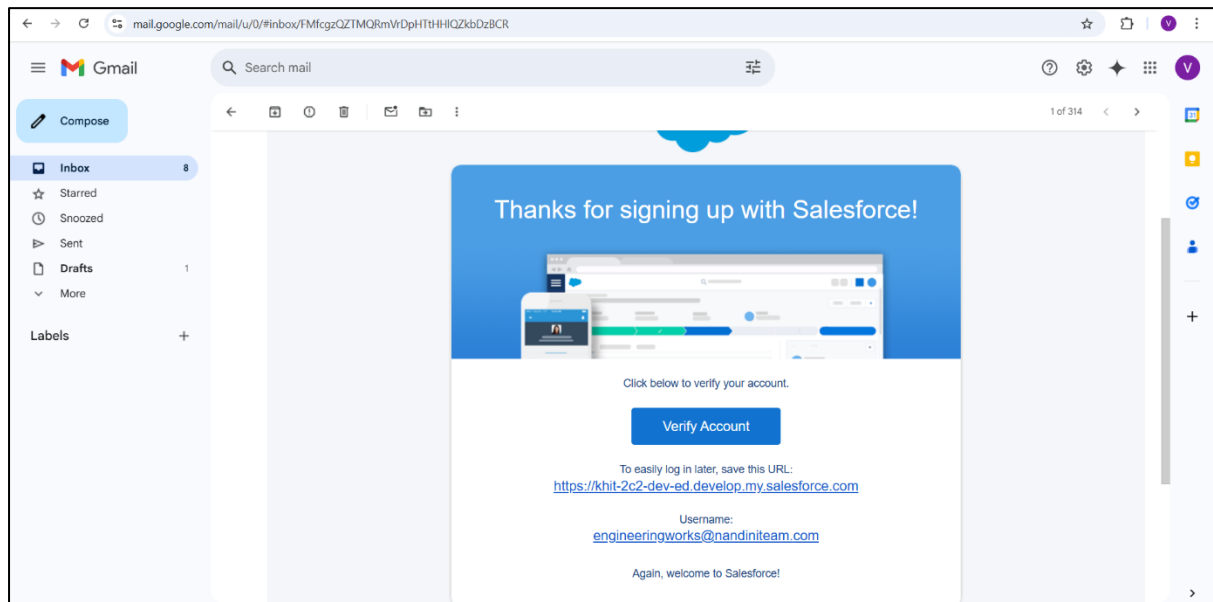
After creating your Salesforce Developer Account, you need to activate it. Follow these steps to activate your account:

Check Your Email

Go to the inbox of the email address you used while signing up. The verification email may take 5-10 minutes to arrive.

Verify Your Account

- Open the email from Salesforce and click on the "Verify Account" link.
- On the verification page, create a password for your account.
- Answer a security question for account recovery.
- Click on "Change Password".



Object :

To Navigate to Setup page:

To create an object:

1. From the setup page ? Click on Object Manager ? Click on Create ? Click on Custom Object.
2. On Custom object defining page:
3. Enter the label name, plural label name, click on Allow reports, Allow search.
4. Click on Save.

Create Fabrication Object:

To create an object:

1. From the setup page ,Click on Object Manager , Click on Create ,Click on Custom Object.
2. Enter the label name: Fabrication
3. Plural label name :Fabrications
4. Enter Record Name Label and Format
 - Record Name : Fabrication Name
 - Data Type :Text
 - Click on Allow reports and Track Field History, Allow Activities
 - Allow search ,Save.

❖ We Follow The Same Process For Remaining Objects Such As : **Shed-Work Object , Pipe Lining Object , Worker Object.**

Setup Home Object Manager

Search Setup

SETUP > OBJECT MANAGER

Fabrication

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

Details

Description

API Name
Fabrication__c
Custom

Singular Label
Fabrication

Plural Label
Fabrications

Enable Reports
✓

Track Activities
✓

Track Field History
✓

Deployment Status
Deployed

Help Settings
[Standard salesforce.com Help Window](#)

Edit Delete

kh1t-2c2-dev-ed.develop.lightning.force.com/lightning/setup/ObjectManager/011dM000004HOV3/Details/view

Setup Home Object Manager

Search Setup

SETUP > OBJECT MANAGER

Shed-Work

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

Details

Description

API Name
Shed_Work__c
Custom

Singular Label
Shed-Work

Plural Label
Shed Works

Enable Reports
✓

Track Activities
✓

Track Field History
✓

Deployment Status
Deployed

Help Settings
[Standard salesforce.com Help Window](#)

Edit Delete

kh1t-2c2-dev-ed.develop.lightning.force.com/lightning/setup/ObjectManager/011dM000004H0bV/Details/view

Setup Home Object Manager

Search Setup

SETUP > OBJECT MANAGER

Pipe Lining

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

Details

Description

API Name
Pipe_Lining__c
Custom

Singular Label
Pipe Lining

Plural Label
Pipe Linings

Enable Reports
✓

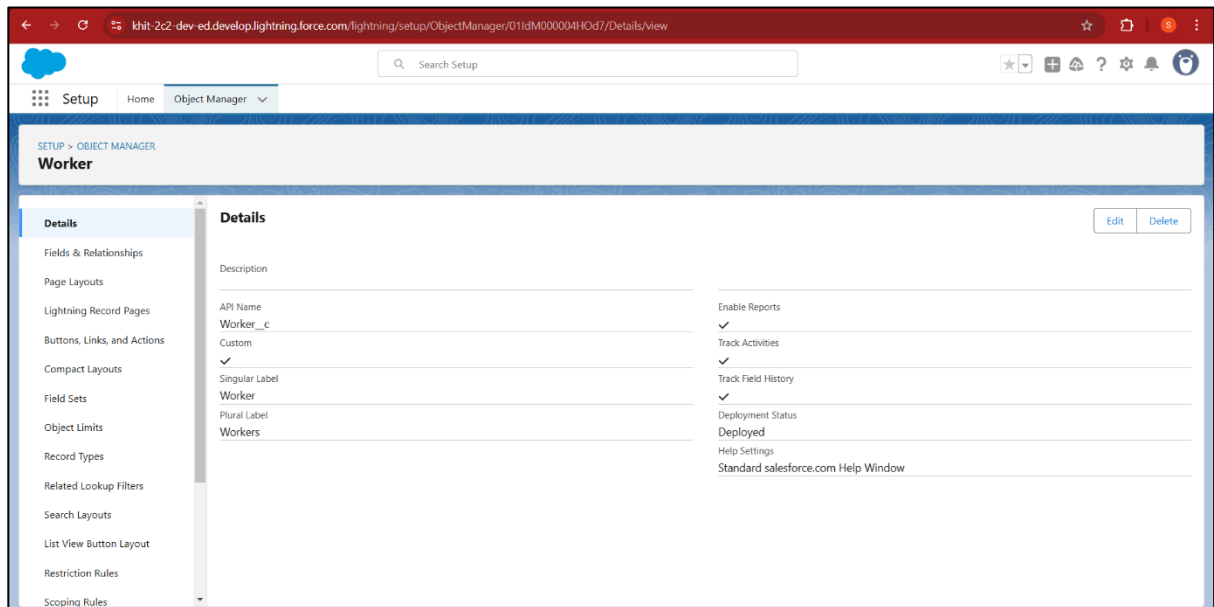
Track Activities
✓

Track Field History
✓

Deployment Status
Deployed

Help Settings
[Standard salesforce.com Help Window](#)

Edit Delete



Tabs :

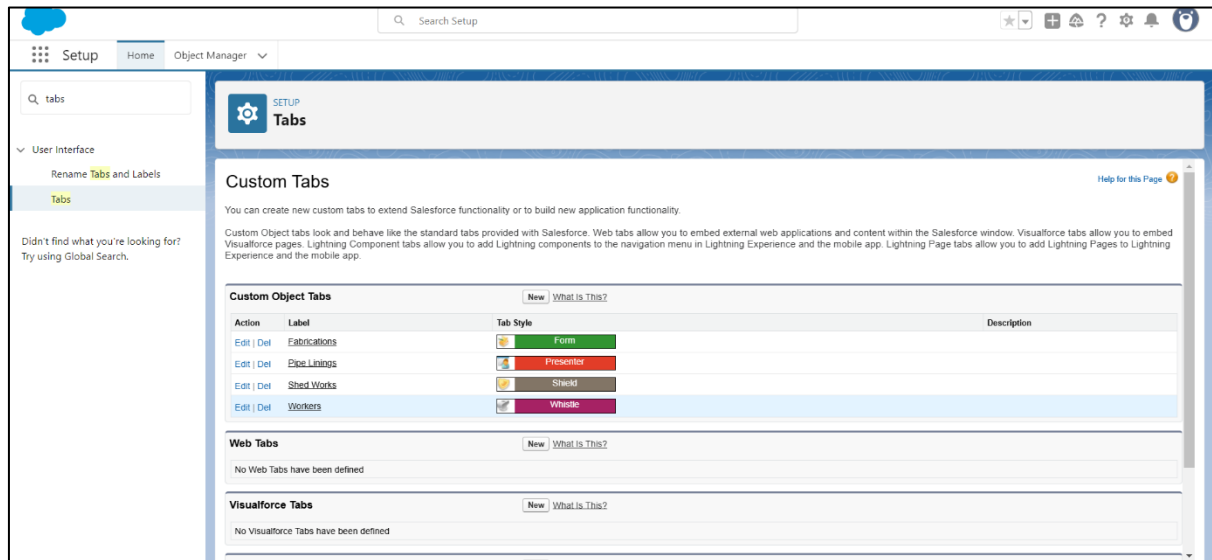
What is Tab : A tab is like a user interface that is used to build records for objects and to view the records in the objects.

Creating a Custom Tab :

To create a Tab:(Fabrication)

1. Go to setup page , type Tabs in Quick Find bar , click on tabs , New (under custom object tab)
2. Select Object(Fabrication) ,Select the tab style , Next (Add to profiles page) keep it as default , Next (Add to Custom App) uncheck the include tab .
3. Make sure that the Append tab to users' existing personal customizations is checked.
4. Click save

❖ Now create the Tabs for the remaining Objects, they are “**Shed-Work, Pipe lining, Worker**”.



The Lightning App :

Create a Lightning App :

1. Access App Manager:

- Go to the Setup page in Salesforce.
- In the Quick Find box, search for "App Manager" and select it.
- Click on "New Lightning App" to start creating your app.

2. App Details and Branding:

- App Name: Enter "Engineering Works".
- Developer Name: This will auto-populate.
- Image: Optional; you can add an image if desired.
- Primary Color Hex Value: Keep the default setting.

3. App Options Page:

- Set the Navigation Style to "Standard Navigation".
- Click "Next".

4. Utility Items:

- Keep the default settings.
- Click "Next".

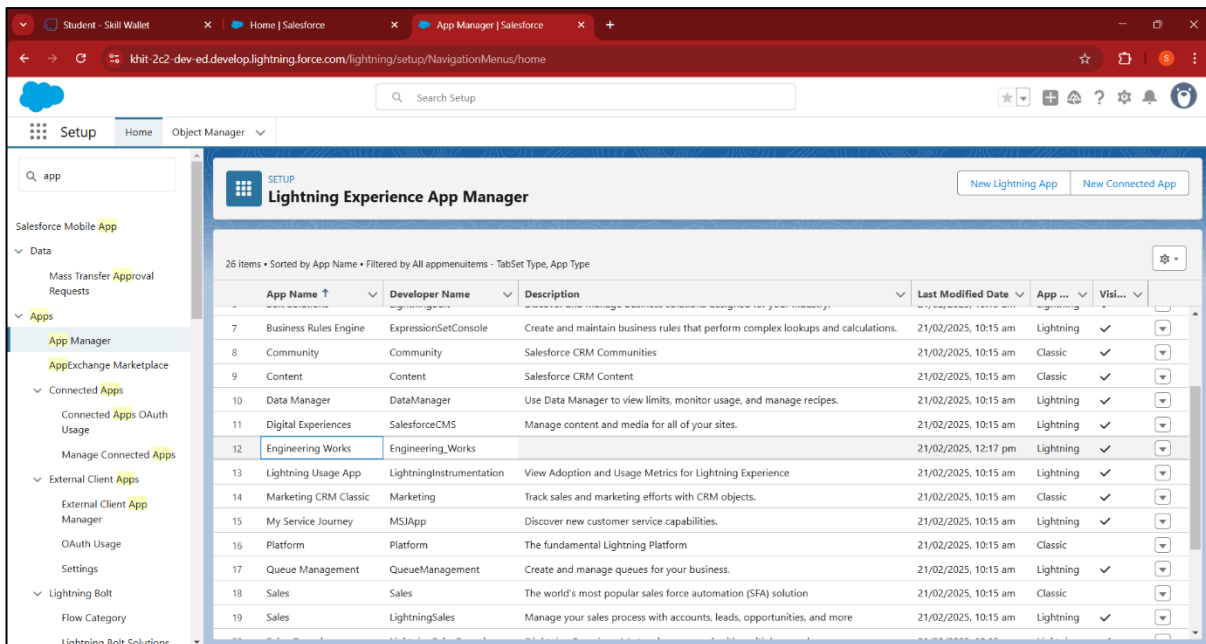
5. Add Navigation Items:

- Search for items like "Fabrications", "Shed Works", "Pipe Linings", and "Workers" in the search bar.
- Use the arrow button to move these items to the selected list.
- Click "Next" twice.

6. Add User Profiles:

- Search for the "System Administrator" profile in the search bar.

- Click on the arrow button to add it to the selected profiles list.
- Click "Save & Finish".



Fields :

➤ Creation of fields for the Fabrication object :

To create fields in an object:

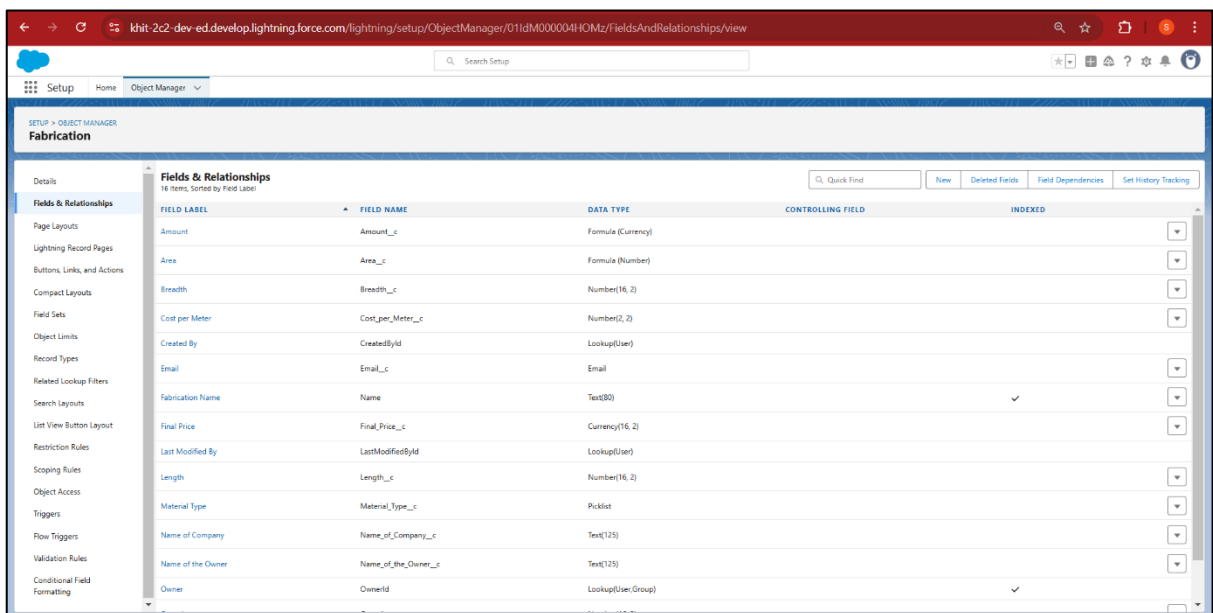
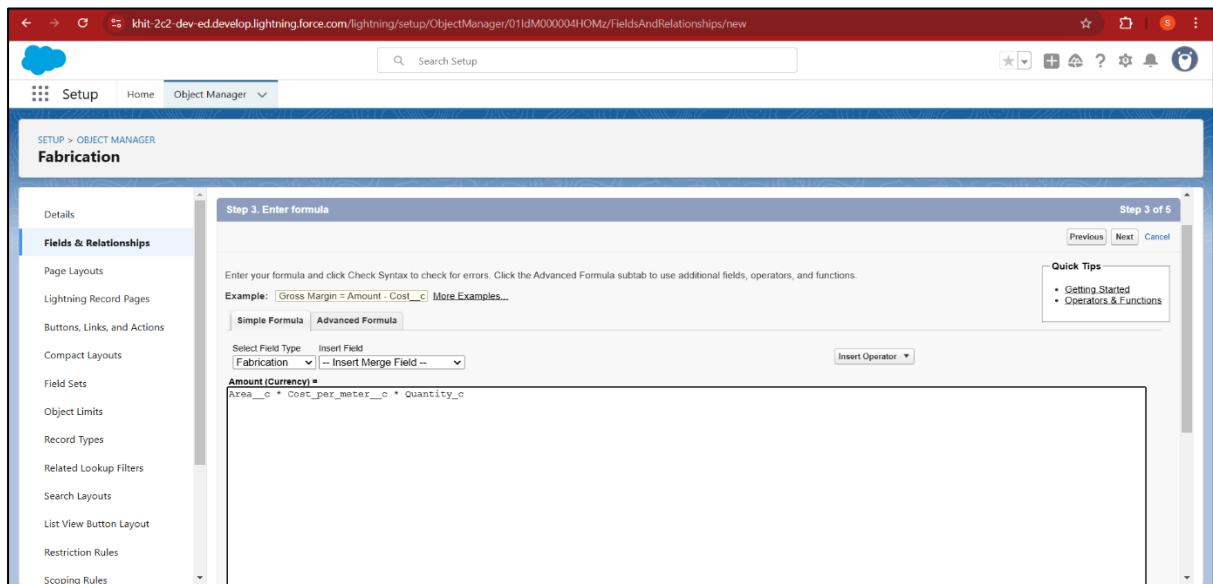
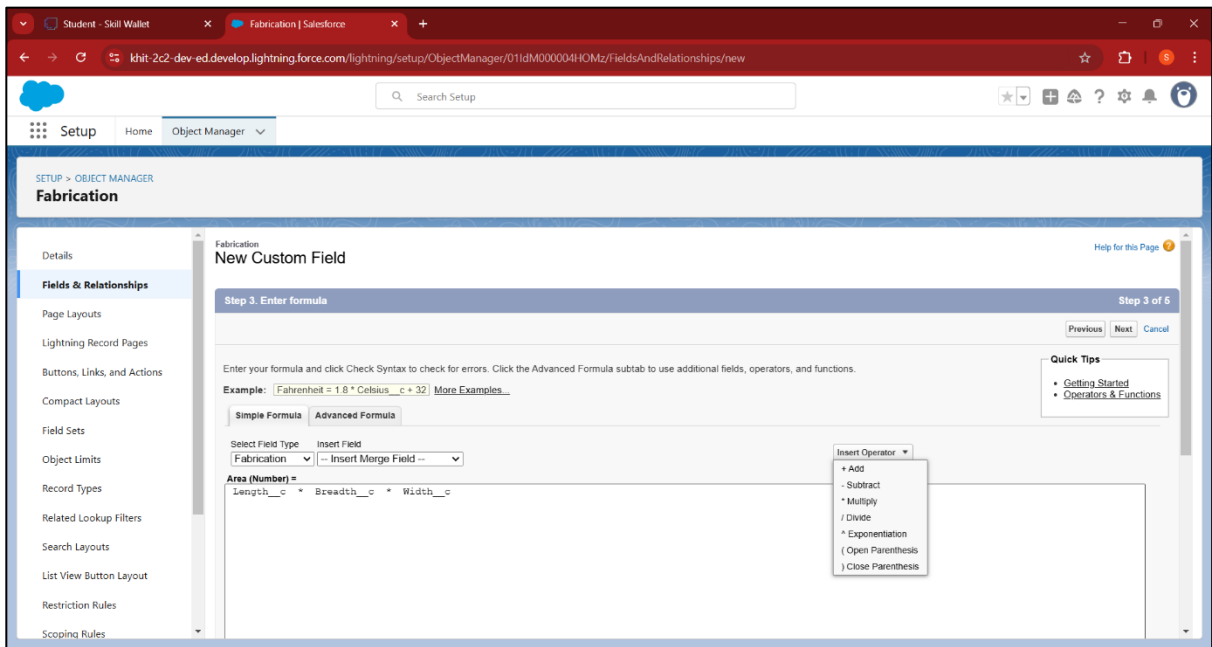
1. Go to setup , click on Object Manager , type object name(Fabrication) in search bar , click on the object.
2. Now click on “Fields & Relationships”, New
3. Select Data Type as a “Text”
4. Click on next

Fill the Above as following:

5. Field Label: Name of the Owner
6. Field Name : Name_of_the_Owner
7. Length : 125
8. Required :check box & Save

We created the following fields for the Fabrication object in Salesforce:

Field Label	Field Name	Data Type	Required	Default Value	Description
Name of the Owner	Name_of_the_Owner	Text	Yes	-	Owner's name
Name of Company	Name_of_Company	Text	No	-	Company name
Length	Length	Number	Yes	-	Length of fabrication object
Breadth	Breadth	Number	Yes	-	Breadth of fabrication object
Width	Width	Number	Yes	-	Width of fabrication object
Area	Area	Formula	No	-	Calculated area (Length * Breadth * Width)
Cost per Meter	Cost_per_meter	Number	No	2	Cost per meter, read-only
Quantity	Quantity	Number	Yes	-	Quantity of fabrication object
Amount	Amount	Formula	No	-	Calculated amount (Area * Cost per Meter * Quantity)
Material Type	Material_Type	Picklist	No	-	Type of material used (Iron, Aluminum, Metal, Wood, Steel)
Final Price	Final_Price	Currency	No	-	Final price of fabrication object
Email	Email	Email	No	-	Email address for communication



Creation of fields for the Shed-Work object :

1. Go to setup ,click on Object Manager , type object name(Shed-Work) in search bar click on the object.
2. Now click on “Fields & Relationships” , New
3. Select Data type as a “Text” and Click on Next
4. Fill the Above as following:
 - Field Label : Name of the Company
 - Field Name : gets auto generated
 - Click on required check box
 - Click on Next , Next, Save and new.

We Follow the Same Steps to the Remaining fields in the Shed-Work Object :

The Fields are as follow :

- Name Of the Company
- Name Of the Owner
- Height
- Breadth
- Width
- Area
- Cost per meter
- Area of Sheet
- Cost per meter Sheet
- Quantity
- Amount
- Material Type Sheet
- Final Price

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Setup

Home

Object Manager

Shed-Work

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

Fields & Relationships

19 Items, Sorted by Field Label

Quick Find

New

Deleted Fields

Field Dependencies

Set History Tracking

Height	Height__c	Number(16, 2)	
Last Modified By	LastModifiedById	Lookup(User)	
Material Type	Material_Type__c	Picklist	
Material Type Sheet	Material_Type_Sheet__c	Picklist	
Name of the Company	Name_of_the_Company__c	Text(125)	
Name of the Owner	Name_of_the_Owner__c	Text(50)	
Owner	OwnerId	Lookup(User,Group)	✓
Quantity	Quantity__c	Number(16, 2)	
Shed Work Name	Name	Text(80)	✓
Width	Width__c	Number(16, 2)	

khlt-2c2-dev-ed.develop.lightning.force.com/lightning/setup/ObjectManager/01ldM000004HOV3/FieldsAndRelationships/view

Setup

Home

Object Manager

Shed-Work

Details

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List View Button Layout

Restriction Rules

Scoping Rules

Fields & Relationships

19 Items, Sorted by Field Label

Quick Find

New

Deleted Fields

Field Dependencies

Set History Tracking

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Amount	Amount__c	Formula (Currency)		
Area	Area__c	Formula (Number)		
Area Sheet	Area_Sheet__c	Formula (Number)		
Breadth	Breadth__c	Number(16, 2)		
Cost per Meter	Cost_per_Meter__c	Number(2, 2)		
Cost per meter sheet	Cost_per_meter_sheet__c	Number(2, 2)		
Created By	CreatedById	Lookup(User)		
Email	Email__c	Email		
Final Price	Final_Price__c	Currency(16, 2)		

Creation of fields for the Pipe Lining object

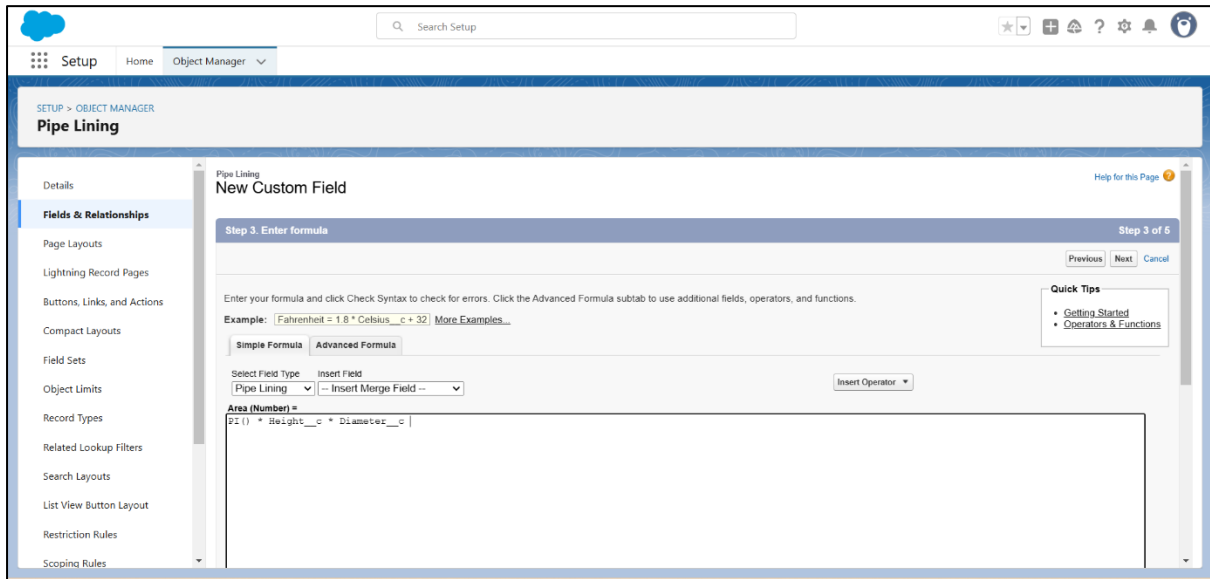
Go to setup , click on Object Manager, type object name(Pipe Lining) in search bar >> click on the object.

2. Now click on “Fields & Relationships” , New

3. Select Data type as a “Text” and Click on Next

4. Fill the Above as following:

- Field Label : Name of the Company
 - Field Name : gets auto generated
 - Click on required check box
 - Click on Next , Next , Save and new.
-
- We Follow the Same Steps to the Remaining fields in the Pipe Lining Object :
 - The Fields are as follow :
 - Name Of the Company
 - Name of the Owner
 - Height
 - Width
 - Diameter
 - Area
 - Cost Per Meter
 - Quantity
 - Amount
 - Material Type
 - Final Price
 - Email.



Creation of fields for the Worker object

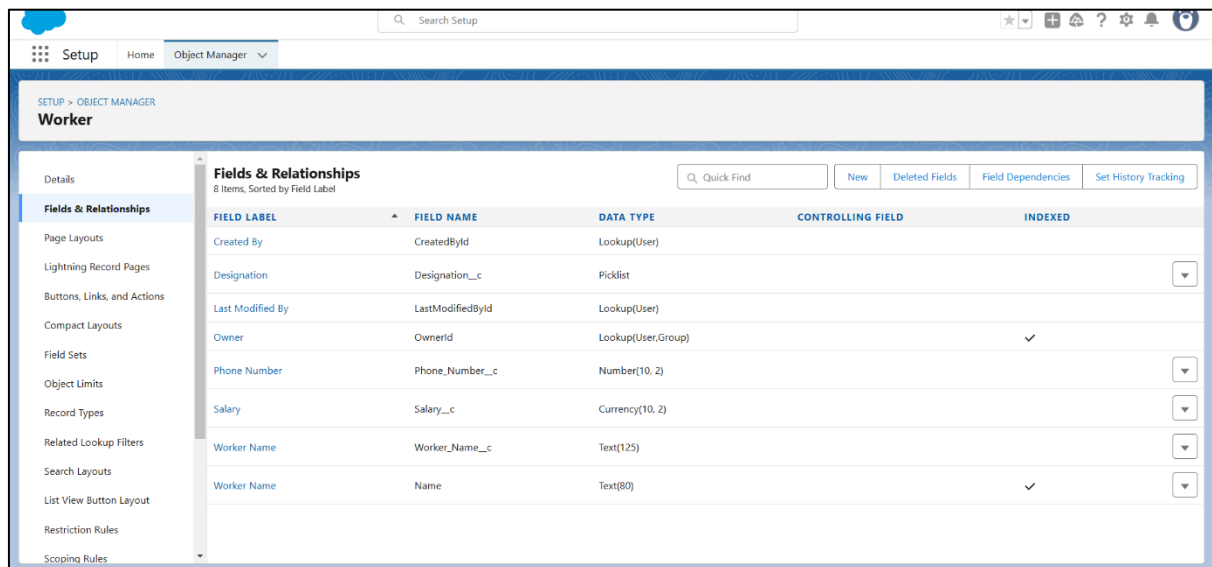
Go to setup, click on Object Manager, type object name(Worker) in search bar , click on the object.

2. Now click on “Fields & Relationships” ,New

3. Select Data type as a “Text” and Click on Next

4. Fill the Above as following:

- Field Label : Worker Name
- Field Name : gets auto generated
- Length : 125
- Click on Next , Next , Save and new.
- We Follow the Same Steps to the Remaining fields in the Worker Object :
- The Fields are as follow :
 - Worker Name
 - Phone Number
 - Designation
 - Salary



Creation of Lookup fields

Creation of Lookup Field on Worker Object :

1. Go to setup, click on Object Manager , type object name(Worker) in the search bar , click on the object.
2. Now click on “Fields & Relationships” , New
3. Select lookup relationship
4. Select the related object “Fabrication” and click next.
5. Field Name : Fabrication
6. Field label : Auto generated
7. Next , Next ,Save.
 - Here we create a Lookup relation , Worker to Remaining Objects Such as **Shed-work, Pipe lining**

Creation of Page Layouts :

The creation of page layouts for drilling, welding, cutting, and folding is a crucial step in organizing and streamlining fabrication processes. Each layout is designed to capture essential information specific to its respective process, ensuring clarity and efficiency in operations. By structuring these layouts effectively, teams can ensure that all critical details are readily available, reducing errors and improving overall productivity.

Page Layout Name	Fields
Drilling Page Layout	Project Name, Date, Drill Bit Size, Material Type, Drill Speed, Feed Rate, Safety Precautions, Procedure Steps
Welding Page Layout	Project Name, Date, Weld Type, Material Type, Welding Speed, Shielding Gas, Safety Equipment, Procedure Steps
Cutting Page Layout	Project Name, Date, Material Type, Cutting Tool Type, Cutting Speed, Precision Level, Safety Measures, Procedure Steps
Folding Page Layout	Project Name, Date, Material Type, Folding Type, Folding Dimensions, Precision Tools Used, Safety Guidelines, Procedure Steps

Setup

Home

Object Manager

SEARCH

Search Setup

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Setup

Home

Object Manager

SETUP > OBJECT MANAGER

Fabrication

Details

Fields & Relationships

Page Layouts

Lightning Record Pages

Buttons, Links, and Actions

Compact Layouts

Field Sets

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Record Types

Related Lookup Filters

Search Layouts

List View Button Layout

Restriction Rules

Page Layouts

5 Items, Sorted by Page Layout Name

Q Quick Find

NewPage Layout Assignment

PAGE LAYOUT NAME	CREATED BY	MODIFIED BY	
Cutting Page Layout	Vallapu Nandini, 21/02/2025, 9:11 pm	Vallapu Nandini, 21/02/2025, 9:14 pm	▼
Drilling Page Layout	Vallapu Nandini, 21/02/2025, 8:49 pm	Vallapu Nandini, 21/02/2025, 9:10 pm	▼
Fabrication Layout	Vallapu Nandini, 21/02/2025, 11:04 am	Vallapu Nandini, 21/02/2025, 9:01 pm	▼
Folding Page Layout	Vallapu Nandini, 21/02/2025, 9:14 pm	Vallapu Nandini, 21/02/2025, 9:16 pm	▼
Welding Page Layout	Vallapu Nandini, 21/02/2025, 9:01 pm	Vallapu Nandini, 21/02/2025, 9:08 pm	▼

Creation of Record Types :

Creating record types for drilling, welding, cutting, and folding is essential for managing fabrication processes effectively. To do this, navigate to the setup page, access the object manager, and edit the Fabrication object. Create a new record type by entering the label and name, and ensure it's active. Then, assign the appropriate page layout—**Drilling, Welding, Cutting, or Folding**—depending on the process. This process is repeated for each record type, resulting in a well-structured system for each fabrication process.

Record Type	Page Layout
Drilling	Drilling Page Layout
Welding	Welding Page Layout
Cutting	Cutting Page Layout
Folding	Folding Page Layout

Student - Skill Wallet

Documentation - 218x1a42b0

Fabrication | Salesforce

Milestone 6: Creation of Page L

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Home | Salesforce | Login - CodeTantra | Course: INDIA_INTE... | kallam-haranadhare...

Search Setup

Setup | Home | Object Manager

SETUP > OBJECT MANAGER

Fabrication

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

Record Types

4 Items, Sorted by Record Type Label

Quick Find

New

Page Layout Assignment

RECORD TYPE LABEL	DESCRIPTION	ACTIVE	MODIFIED BY
Cutting		✓	Vallapu Nandini, 21/02/2025, 9:22 pm
Drilling		✓	Vallapu Nandini, 21/02/2025, 9:18 pm
Folding		✓	Vallapu Nandini, 21/02/2025, 9:22 pm
Welding		✓	Vallapu Nandini, 21/02/2025, 9:21 pm

Validation rule :

Creating validation rules for fabrication processes is crucial for ensuring data integrity and preventing invalid entries. This involves setting up rules that check for specific conditions and display error messages when those conditions are not met. For the Fabrication Object, a validation rule named "**Rule_for_fabrication**", "**Rule_for_shed_work**", "**Rule_for_pipe_lining**" can be created to ensure that fields like Length, Breadth, Width, and Quantity are not zero. This rule helps maintain consistency and accuracy in fabrication data.

Rule Name	Error Condition Formula	Error Message
Rule_for_fabrication	OR(Length__c == 0, Breadth__c == 0, Width__c == 0, Quantity == 0)	Length, Breadth, Width, and Quantity Values should not be zero
Rule_for_shed_work	OR(Height__c == 0, Breadth__c == 0, Width__c ==0, Quantity__c == 0)	Height, Breadth, Width and Quantity Values should not be zero
Rule_for_pipe_lining	OR(Height__c ==0, Diameter__c ==0, Width__c ==0, Quantity__c == 0)	Height, Diameter, Width and Quantity Values should not be zero

The screenshot displays the Salesforce Object Manager interface for the 'Fabrication' object. The left sidebar contains a navigation menu with options: 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, and Custom Rules. The main content area is titled 'Fabrication Validation Rule' and includes a 'Back to Fabrication' link. Below this, the 'Validation Rule Detail' section shows the following information:

- Rule Name:** Rule_for_fabrication
- Active:** Yes (indicated by a checkmark)
- Error Condition Formula:** OR(Length__c == 0, Breadth__c == 0, Width__c ==0, Quantity__c == 0)
- Error Message:** Length, Breadth, Width and Quantity Values should not be zero
- Error Location:** Top of Page
- Description:**
- Created By:** Vallapu Nandini, 21/02/2025, 9:26 pm
- Modified By:** Vallapu Nandini, 21/02/2025, 9:26 pm

Buttons for 'Edit' and 'Clone' are available for the rule details.

The screenshot shows the 'Shed-Work Validation Rule' configuration page. The left sidebar contains navigation links: Details, Fields & Relationships, Page Layouts, Lightning Record Pages, Buttons, Links, and Actions, Compact Layouts, Field Sets, Object Limits, Record Types (highlighted), Related Lookup Filters, Search Layouts, List View Button Layout, and Restriction Rules.

Shed-Work Validation Rule

[Back to Shed-Work](#)

Validation Rule Detail		Edit	Clone
Rule Name	Rule_for_Shed_Work	Active	<input checked="" type="checkbox"/>
Error Condition Formula	OR(Height__c == 0, Breadth__c == 0, Width__c == 0, Quantity__c == 0)		
Error Message	Height, Breadth, Width and Quantity Values should not be zero	Error Location	Top of Page
Description			
Created By	Vallapu Nandini	21/02/2025, 9:33 pm	Modified By Vallapu Nandini 24/02/2025, 1:49 pm

At the bottom of the rule details section are two buttons: Edit and Clone.

Home | Salesforce

Login - CodeTantra

Course: INDIA_INTE...

kallam-haranadhare...

All Bookmarks

Search Setup

Setup

Home

Object Manager

SETUP > OBJECT MANAGER

Pipe Lining

Details

Fields & Relationships

Page Layouts

Lightning Record Pages

Buttons, Links, and Actions

Compact Layouts

Field Sets

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List View Button Layout

Restriction Rules

Pipe Lining Validation Rule

[Back to Pipe Lining](#)

Validation Rule Detail

Edit

Clone

Rule Name	Rule_for_Pipe_Lining	Active	<input checked="" type="checkbox"/>
Error Condition Formula	OR(Height__c ==0, Diameter__c ==0, Width__c ==0, Quantity__c == 0)		
Error Message	Height, Diameter, Width and Quantity Values should not be zero	Error Location	Top of Page
Description			
Created By	Vallapu Nandini, 21/02/2025, 9:49 pm	Modified By	Vallapu Nandini, 24/02/2025, 1:47 pm

Edit

Clone

Help for this Page

Email Templates :

We created email templates in Salesforce by uploading a logo, designing a letterhead, and setting up email templates and alerts for Fabrication, Shed-Work, and Pipe Lining objects. This ensured professional and automated communication across all fabrication processes.

The process began with navigating to the setup page and searching for Email Templates in the quick find box. We then clicked on Classic Email Templates to proceed with creating a new template.

Email Template Details

We created a new email template by selecting HTML (using Classic Letterhead) as the type. The template details were as follows:

Folder: Unfiled Public Classic Email Templates

Available for Use: We checked this box to make the template accessible.

Email Template Name: Bill Template

Template Unique Name: This was auto-populated by the system.

Subject: Fabrication Template

Email Body

The email body included the following text:

Hello

{!Fabrication__c.Name_of_the_Owner__c}{!Shed_Work__c.Name_of_the_Owner__c}{!Pipe_Lining__c.Name_of_Owner__c} ,

I hope everything is going well in {!Fabrication__c.Name_of_Company__c}{!Shed_Work__c.Name_of_Company__c}{!Pipe_Lining__c.Name_of_Company__c} Company. I have been attached the required items for the work to be done. Please verify them.

length = {!Fabrication__c.Length__c}{!Shed_Work__c.Height__c}{!Pipe_Lining__c.Height__c},

breadth = {!Fabrication__c.Length__c}{!Shed_Work__c.Breadth__c}, width =

{!Fabrication__c.Width__c}{!Shed_Work__c.Width__c}{!Pipe_Lining__c.Width__c}, area =

{!Fabrication__c.Area__c}{!Shed_Work__c.Area__c}{!Pipe_Lining__c.Area__c}, The Final Price =

{!Fabrication__c.price__c}{!Shed_Work__c.Price__c}{!Pipe_Lining__c.Price__c}

Thanks & Regards,

Engineering Works.

Setup

Home

Object Manager

Classic Email Templates

Bill Template

Preview your email template below.

Email Template Detail

Email Template Name	Labelled Public Classic Email Template
Bill Template	Bill Template
Template Unique Name	Bill Template
Class Label Name	Bill Template
Email Layout	Bill Template
Encoding	UTF-8
Created By	System Administrator
Created On	2010-01-01 12:01 pm

Available For Use

Yes

Last Used Date


Never Used

Times Used

0

Email Template

Subject: Bill Template



Hi {!Fabrication__c.Name_of_the_Client__c}!

I hope everything is going well in {!Fabrication__c.Name_of_the_Client__c}.

I have been attached the required items for the work to be done. Please verify them.

Length = {!Fabrication__c.Length__c} Height = {!Fabrication__c.Height__c}

Width = {!Fabrication__c.Width__c} Depth = {!Fabrication__c.Depth__c}

Weight = {!Fabrication__c.Weight__c} Volume = {!Fabrication__c.Volume__c}

The Final Price = {!Fabrication__c.Final_Price__c}

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Course: INDIA_INTE...

kallam-haranadhare...

Classic Email Templates

Pipe Lining Template

Preview your email template below.

Email Template Detail

Email Template Name	Labelled Public Classic Email Template
Pipe Lining Template	Pipe Lining Template
Template Unique Name	Pipe Lining Template
Class Label Name	Pipe Lining Template
Email Layout	Pipe Lining Template
Encoding	UTF-8
Created By	System Administrator
Created On	2010-01-01 12:01 pm

Available For Use

Yes

Last Used Date


Never Used

Times Used

0

Email Template

Subject: Pipe Lining Template



Hi {!Fabrication__c.Name_of_the_Client__c}!

I hope everything is going well in {!Fabrication__c.Name_of_the_Client__c}.

I have been attached the required items for the work to be done. Please verify them.

Length = {!Fabrication__c.Length__c} Height = {!Fabrication__c.Height__c}

Width = {!Fabrication__c.Width__c} Depth = {!Fabrication__c.Depth__c}

Weight = {!Fabrication__c.Weight__c} Volume = {!Fabrication__c.Volume__c}

The Final Price = {!Fabrication__c.Final_Price__c}

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kallam-haranadhare...

Classic Email Templates

Sheet Work Template

Preview your email template below.

Email Template Detail

Email Template Name	Labelled Public Classic Email Template
Sheet Work Template	Sheet Work Template
Template Unique Name	Sheet Work Template
Class Label Name	Sheet Work Template
Email Layout	Sheet Work Template
Encoding	UTF-8
Created By	System Administrator
Created On	2010-01-01 12:01 pm

Available For Use

Yes

Last Used Date


Never Used

Times Used

0

Email Template

Subject: Sheet Work Template



Hi {!Fabrication__c.Name_of_the_Client__c}!

I hope everything is going well in {!Fabrication__c.Name_of_the_Client__c}.

I have been attached the required items for the work to be done. Please verify them.

Length = {!Fabrication__c.Length__c} Height = {!Fabrication__c.Height__c}

Width = {!Fabrication__c.Width__c} Depth = {!Fabrication__c.Depth__c}

Weight = {!Fabrication__c.Weight__c} Volume = {!Fabrication__c.Volume__c}

The Final Price = {!Fabrication__c.Final_Price__c}

Flows :

We created flows in Salesforce to automate the calculation of final prices for **Fabrication, Shed-Work, and Pipe Lining** objects based on material types. Here's an overview of the process:

➤ Fabrication Flow

1. Setup Flow:

- Navigate to Setup, search for Flow, and select New Flow.
- Choose Record-Triggered Flow for the Fabrication object.

2. Trigger Conditions:

- Set Entry Conditions to none.
- Trigger the flow when a record is created or updated.

3. Actions:

- **Send Email Alert:** Use the Fabrication template.
- **Decision:** Based on Material_Type__c, create outcomes for Iron, Aluminum, Metal, Wood, and Steel.
- **Update Related Record:** For each material type, update the Final_price__c field using a formula based on Amount__c.

Iron: $\{!\$Record.Amount_c\} * 2$

Aluminum: $\{!\$Record.Amount_c\} * 1.8$

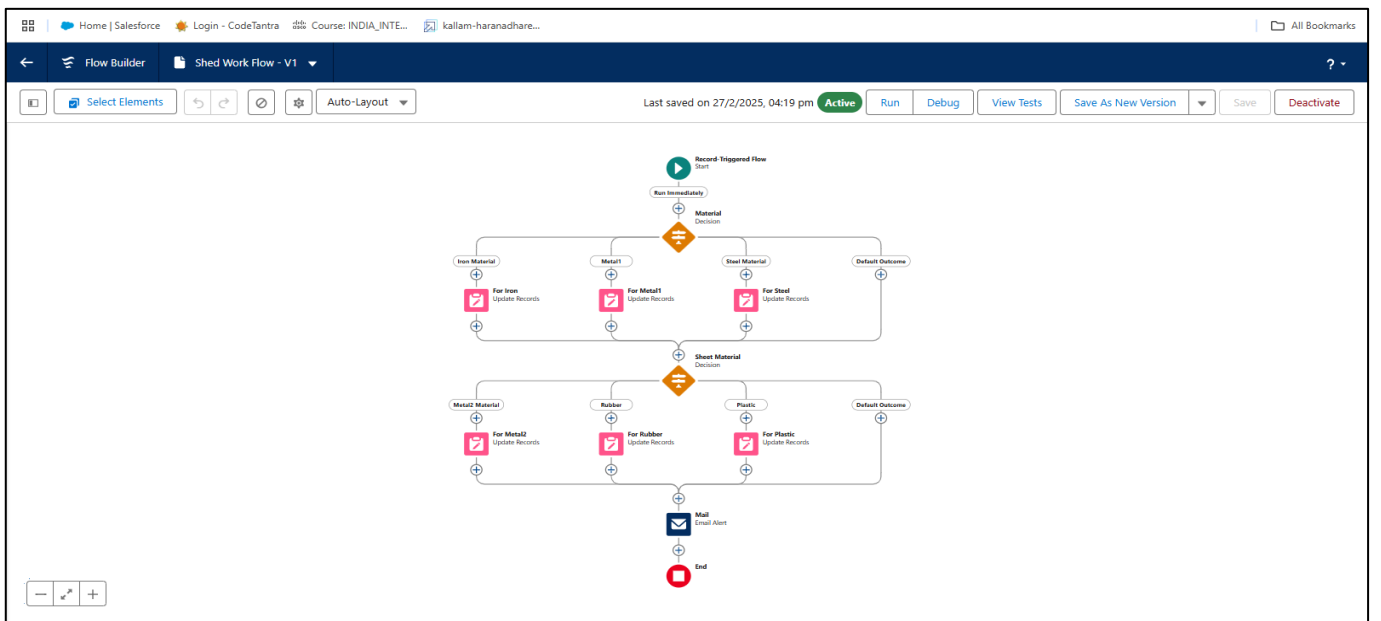
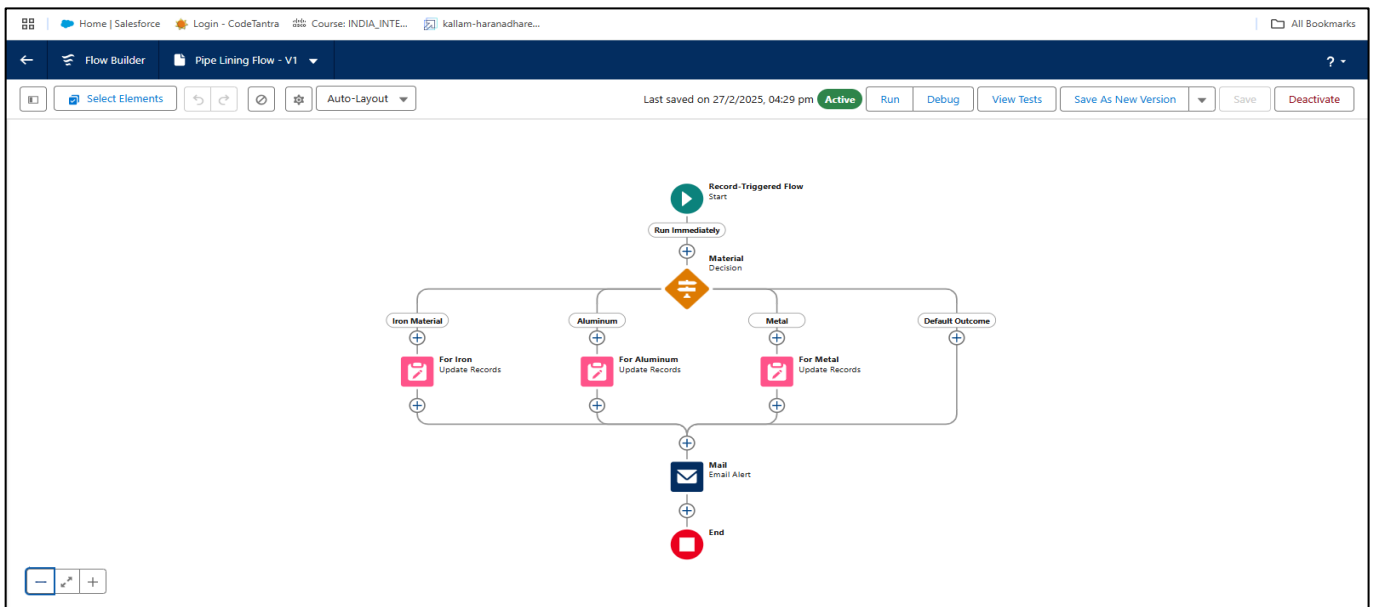
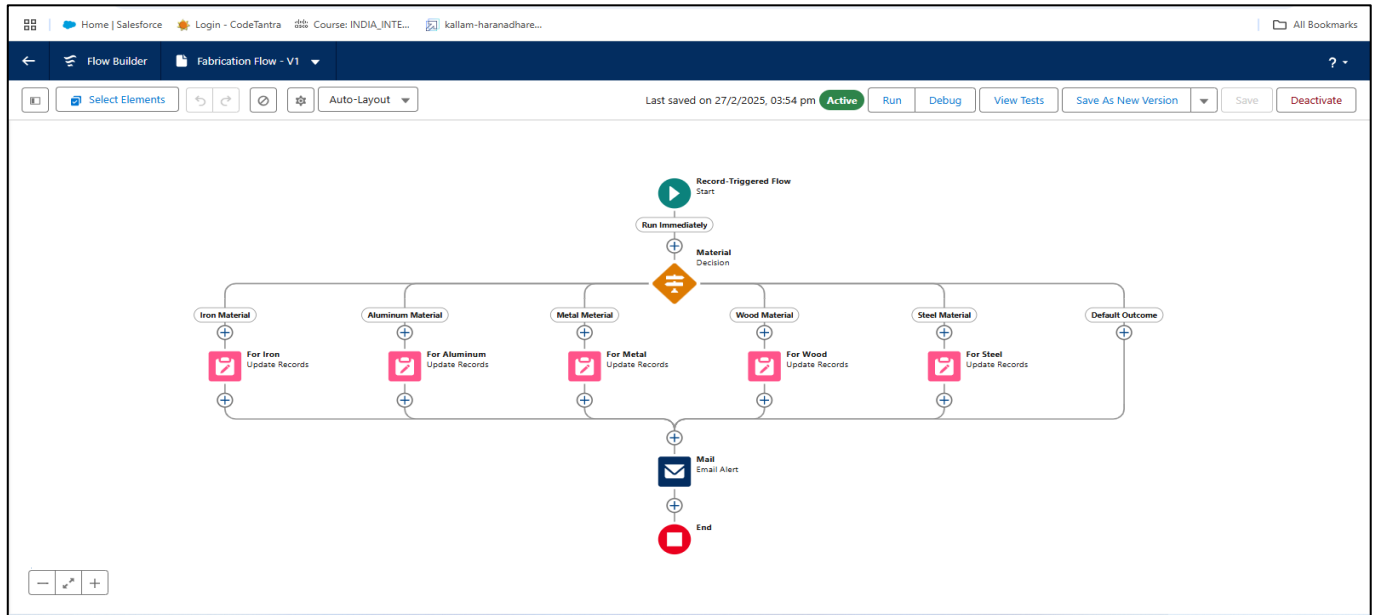
Metal: $\{!\$Record.Amount_c\} * 1.6$

Wood: $\{!\$Record.Amount_c\} * 1.4$

Steel: $\{!\$Record.Amount_c\} * 1.2$

4. Save and Activate:

- Label: Fabrication Flow
- API Name: Fabrication_Flow
- Save and activate the flow.



Outcomes :

1. Instant Data Access:

- **Up-to-Date Information:** Users can access the latest project data, client interactions, and sales metrics without delays, enabling timely decisions.
- **Enhanced Decision-Making:** Real-time data helps identify trends, opportunities, and challenges, allowing for proactive strategies.

2. Improved Collaboration:

- **Unified Team Efforts:** All team members have access to the same real-time information, ensuring consistent communication and strategies across departments.
- **Enhanced Customer Engagement:** Real-time insights help personalize interactions, anticipate customer needs, and provide tailored solutions, improving customer satisfaction.

3. Dynamic Resource Allocation:

- **Real-Time Tracking:** Allows for immediate adjustments in resource allocation based on current project needs, optimizing efficiency and productivity.
- **Predictive Analytics:** Enables businesses to forecast future trends and customer behavior, making informed decisions to capitalize on opportunities.

4. Competitive Advantage:

- **Agility and Responsiveness:** Real-time data allows businesses to respond quickly to market changes, staying ahead of competitors.
- **Innovative Solutions:** Adopting real-time CRM capabilities positions the company as a leader in engineering services, enhancing market differentiation.

Conclusion

The Engineering Works project successfully automates key processes in fabrication, Shed-Work, and Pipe Lining by leveraging Salesforce's capabilities. The system automatically calculates the area of fabrication objects based on parameters such as length, breadth, and width, ensuring accuracy and efficiency. Additionally, the final price is dynamically calculated based on the area and material type, streamlining cost estimation and ensuring that all relevant factors are considered. Custom email templates and alerts are integrated to maintain professional communication and automate notifications to stakeholders.

By achieving these milestones, the project demonstrates a comprehensive approach to automating fabrication processes, enhancing operational efficiency, and improving communication. Validation rules are implemented to enforce data integrity, maintaining data consistency across all fabrication processes. This documentation serves as a guide for future enhancements and implementations, providing a structured framework for ongoing improvements in the Engineering Works project.