

A CRM APPLICATION FOR ENGINEERING WORKS

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A CRM APPLICATION FOR ENGINEERING WORKS

1. PROJECT OVERVIEW:

This project is focused on developing an application to manage client information for engineering projects, designed to address the need for streamlined client information management and accurate project cost calculations. The goal is to deliver a comprehensive solution by leveraging efficient data management and automated calculation features. Through this project, we aim to enhance operational efficiency, data accuracy, and user experience and support the long-term goals of engineering project management and client satisfaction.

2. OBJECTIVES:

Business Goals:

- To enhance the efficiency and accuracy of client information management in engineering projects.
- To streamline operational workflows, including fabrication, shed construction, and pipe lining, within a single, cohesive application.
- To reduce manual errors and improve cost estimation accuracy by automating material measurement and pricing calculations.
- To support long-term scalability and adaptability in engineering project management, ensuring the system can accommodate expanding client and project data.

Specific Outcomes:

- **Centralized Client Database:** A centralized repository for all client information, including company details, owner information, and contact details.
- **Automated Cost Calculations:** An automated pricing system that calculates project costs based on material requirements and measurements, ensuring accurate budgeting and invoicing.
- **Workflow Management for Engineering Processes:** Detailed tracking and management capabilities for fabrication, shed construction, and pipe lining processes, including specific tasks like drilling, welding, cutting, and folding.
- **User-Friendly Interface:** A user interface that allows quick data entry, easy access to client and project information, and smooth navigation for project management tasks.

3. SALESFORCE KEY FEATURES AND CONCEPTS UTILIZED

This section highlights the main functionalities and concepts applied within the Salesforce project to achieve efficient client management and workflow automation.

1. Salesforce Objects

- Custom Objects: Created for managing client information, worker details, material requirements, and engineering processes.
- Standard Objects: Leveraged to track company information, contact details, and other essential client data.

2. Data Management

- Data Import and Export: Utilized Salesforce Data Loader to efficiently import and export client, project, and material data.
- Record Management: Ensures each client, project, and associated engineering work is properly documented and accessible.

3. Workflow and Process Automation

- Process Builder: Automates key processes, such as updating project statuses and sending notifications based on specific triggers (e.g., project stage completion).
- Flow Builder: Manages complex workflows within engineering projects, including material tracking and worker assignments.
- Approval Processes: Configured to ensure project approvals are routed to the appropriate team members before proceeding.

4. Calculations and Pricing Management

- Formula Fields: Used for automatic calculation of material costs based on measurements and project requirements.
- Customizable Price Books: Supports different pricing models for fabrication, shed construction, and pipe lining, allowing flexibility in billing.

5. Reporting and Dashboards

- Custom Reports: Created to track project progress, cost breakdowns, and worker productivity, helping managers make informed decisions.
- Dashboards: Provide a visual summary of active projects, material usage, and budget allocation for quick insights.

6. Security and Access Control

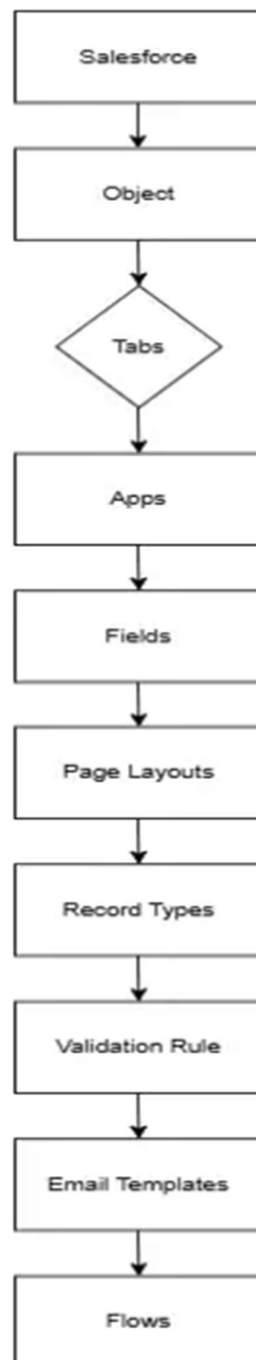
- Role Hierarchy and Sharing Rules: Ensures appropriate access to project and client data based on user roles.
- Field-Level Security: Protects sensitive information by restricting access to specific fields in client and project records.

7. Integration and APIs

- External System Integration: Connects with external systems for material sourcing and inventory management.
- REST API: Facilitates data exchange with third-party applications to streamline material cost updates and supplier information.

4. DETAILED STEPS TO SOLUTION DESIGN

Project Flow:

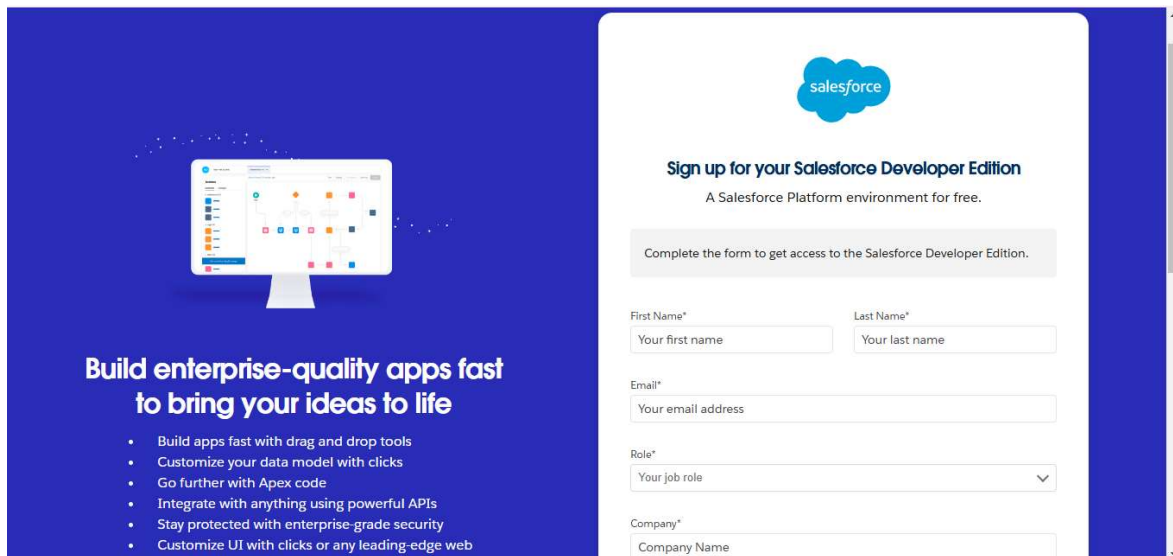


Milestone 1: Salesforce developer account creation

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 :



The screenshot shows the Salesforce Developer Edition sign-up page. On the left, a blue banner features a monitor displaying a flowchart and the text: "Build enterprise-quality apps fast to bring your ideas to life". Below this, a list of bullet points highlights capabilities: "Build apps fast with drag and drop tools", "Customize your data model with clicks", "Go further with Apex code", "Integrate with anything using powerful APIs", "Stay protected with enterprise-grade security", and "Customize UI with clicks or any leading-edge web". On the right, the sign-up form is displayed with the Salesforce logo at the top. The heading reads "Sign up for your Salesforce Developer Edition" followed by "A Salesforce Platform environment for free." and a prompt to "Complete the form to get access to the Salesforce Developer Edition." The form includes fields for "First Name*" (placeholder: "Your first name"), "Last Name*" (placeholder: "Your last name"), "Email*" (placeholder: "Your email address"), a "Role*" dropdown menu (placeholder: "Your job role"), and a "Company*" field (placeholder: "Company Name").

- 1) First name & Last name
- 2) Email
- 3) Role : Developer
- 4) Company : College Name
- 5) Country : India
- 6) Postal Code : pin code
- 7) Username : should be a combination of your name and company

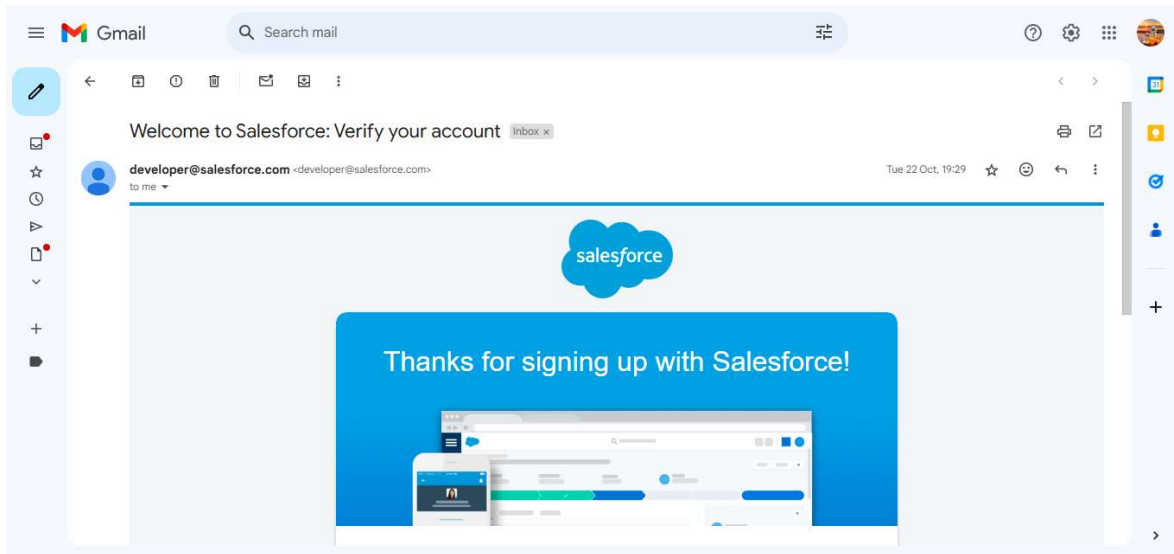
This need not be an actual email id, you can give anything in the format :

[username@organization.com](#)

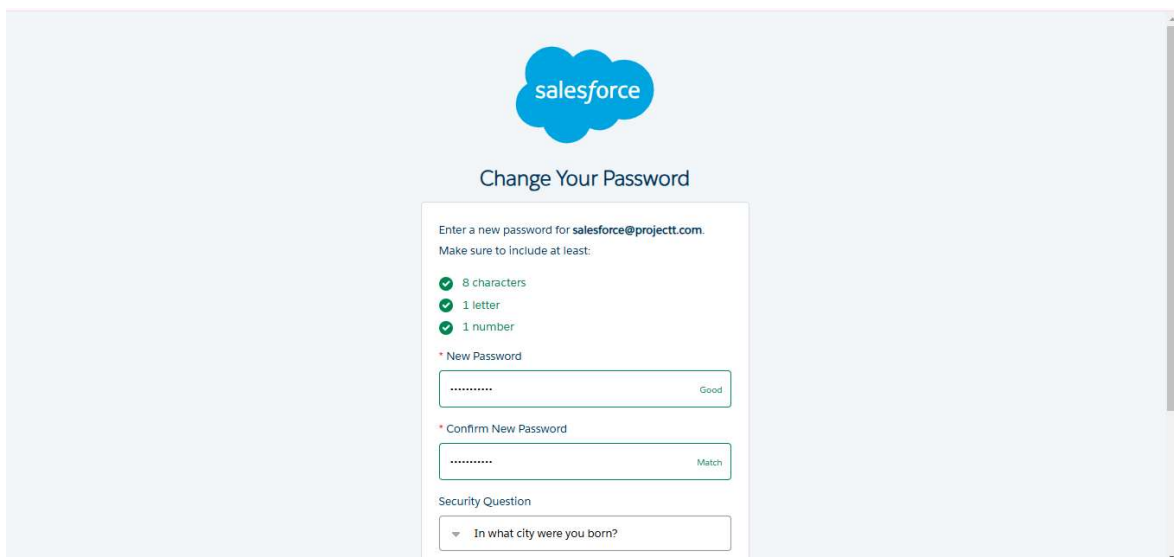
Click on sign me up after filling these.

Account Activation

1. Go to the inbox of the email that you used while signing up. Click on the verify account to activate your account. The email may take 5-10mins.



2. Click on Verify Account
3. Give a password and answer a security question and click on change password



salesforce

Change Your Password

Enter a new password for **salesforce@projectt.com**.
Make sure to include at least:

- ✓ 8 characters
- ✓ 1 letter
- ✓ 1 number

* New Password

..... Good

* Confirm New Password

..... Match

Security Question

▼ In what city were you born?

Enter a new password for **salesforce@projectt.com**.
Make sure to include at least:

- ✓ 8 characters
- ✓ 1 letter
- ✓ 1 number

* New Password

..... Good

* Confirm New Password

..... Match

Security Question

▼ In what city were you born?

* Answer

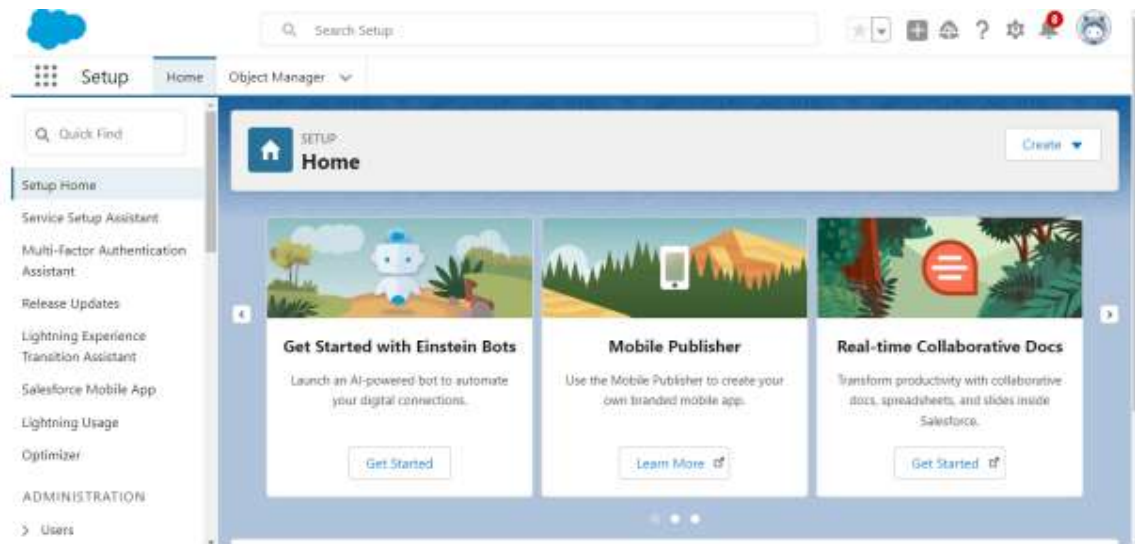
Trichy

Change Password

Password was last changed on 13/11/2024, 3:18 pm.

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4. Then you will redirect to your salesforce setup page



Milestone 2: Object

Create an Object:

Salesforce objects are database tables that permit you to store data that is specific to an organization. What are the types of Salesforce objects.

Salesforce objects are of two types:

1. **Standard Objects:** Standard objects are the kind of objects that are provided by salesforce.com such as users, contracts, reports, dashboards, etc.
2. **Custom Objects:** Custom objects are those objects that are created by users. They supply information that is unique and essential to their organization. They are the heart of any application and provide a structure for sharing data.

Use Case:

Creating an object in Salesforce organization is essential for efficient data management and process automation. By defining custom objects, businesses can structure and store data specific to their needs, enabling streamlined workflows, personalized reporting, and enhanced user experiences. Objects serve as the foundation for organizing and leveraging critical information within Salesforce. As an Admin for TheSmartBridge, It's your responsibility to store the data as per the organization needs.

To Navigate to Setup page:

Click on gear icon → click setup.

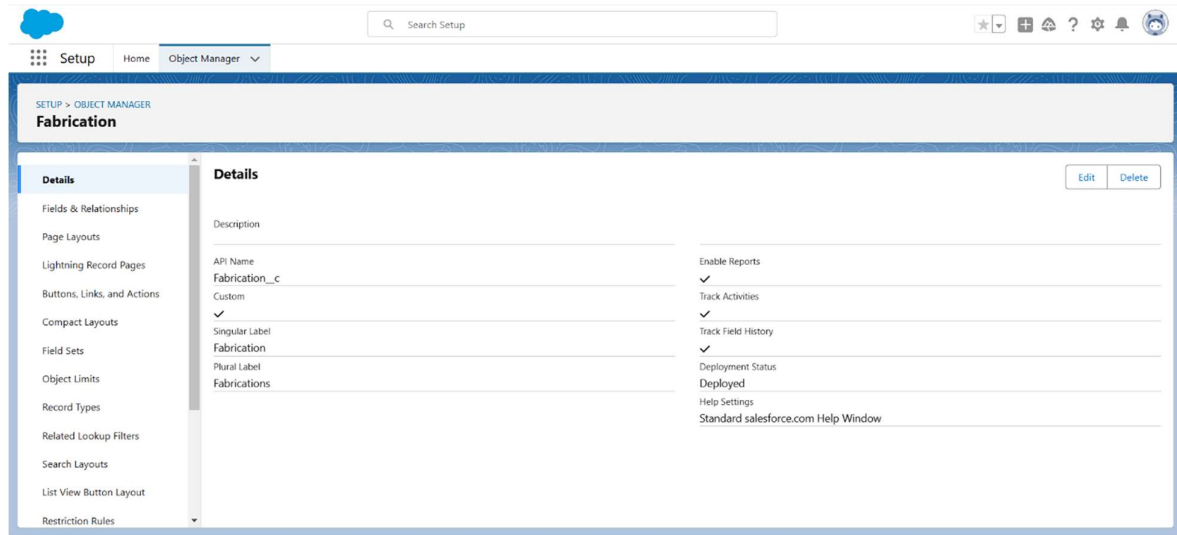
To create an object:

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.
 1. Enter the label name>>Fabrication
 2. Plural label name >> Fabrications
 3. Enter Record Name Label and Format
 - Record Name >> Fabrication Name
 - Data Type >> Text
2. Click on Allow reports and Track Field History,Allow Activities
3. Allow search >> Save.



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

Details

Description

API Name
Fabrication__c

Custom
✓

Singular Label
Fabrication

Plural Label
Fabrications

Enable Reports
✓

Track Activities
✓

Track Field History
✓

Deployment Status
Deployed

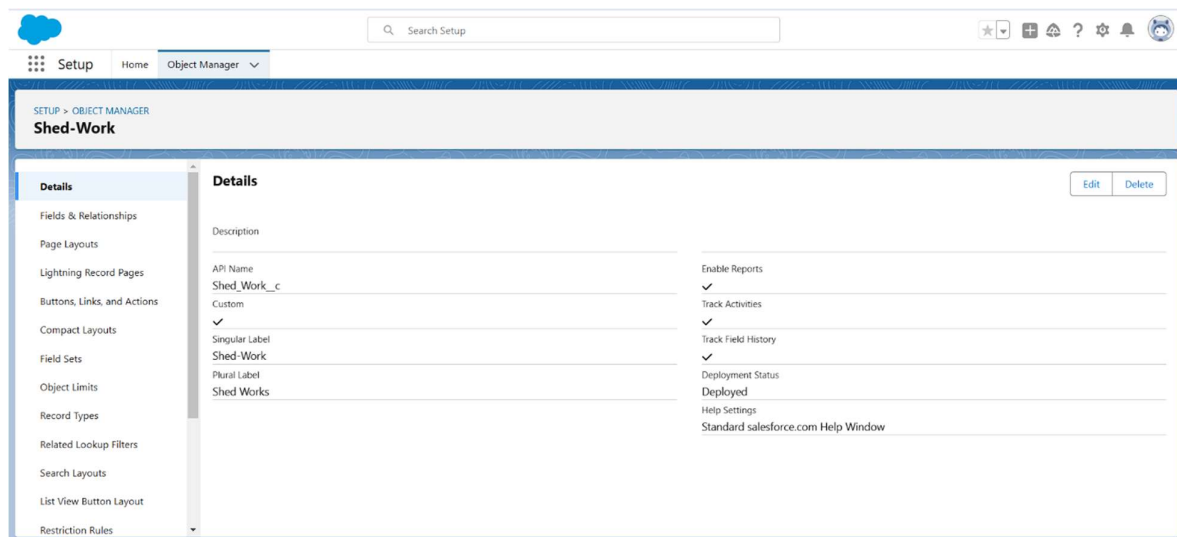
Help Settings
Standard salesforce.com Help Window

Edit Delete

Create Shed-Work Object

To create an object:

- From the setup page >> Click on Object Manager >> Click on Create >> Click on Custom Object.
 - Enter the label name >> Shed-Work
 - Plural label name >> Shed Works
 - Enter Record Name Label and Format
 - Record Name >> Shed Work Name
 - Data Type >> Text
- Click on Allow reports and Track Field History, Allow Activities
- Allow search >> Save.



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

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

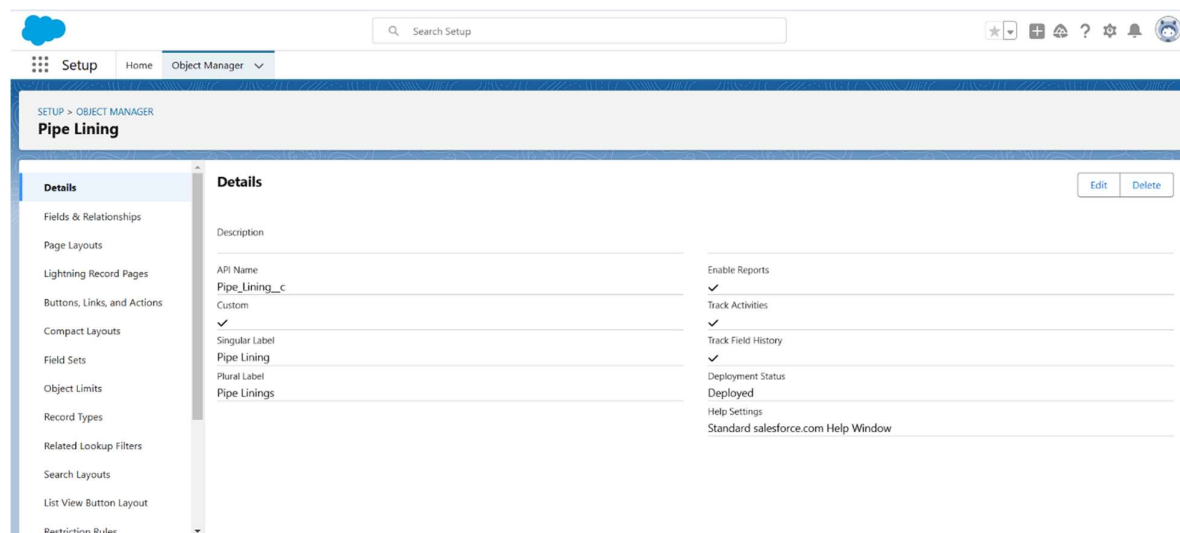
Help Settings
Standard salesforce.com Help Window

Edit Delete

Create Pipe Lining Object

To create an object:

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



The screenshot shows the Salesforce Setup page for the 'Pipe Lining' object. The left sidebar contains a list of setup 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, and Restriction Rules. The main content area is titled 'Pipe Lining' and includes a 'Details' section with the following fields:

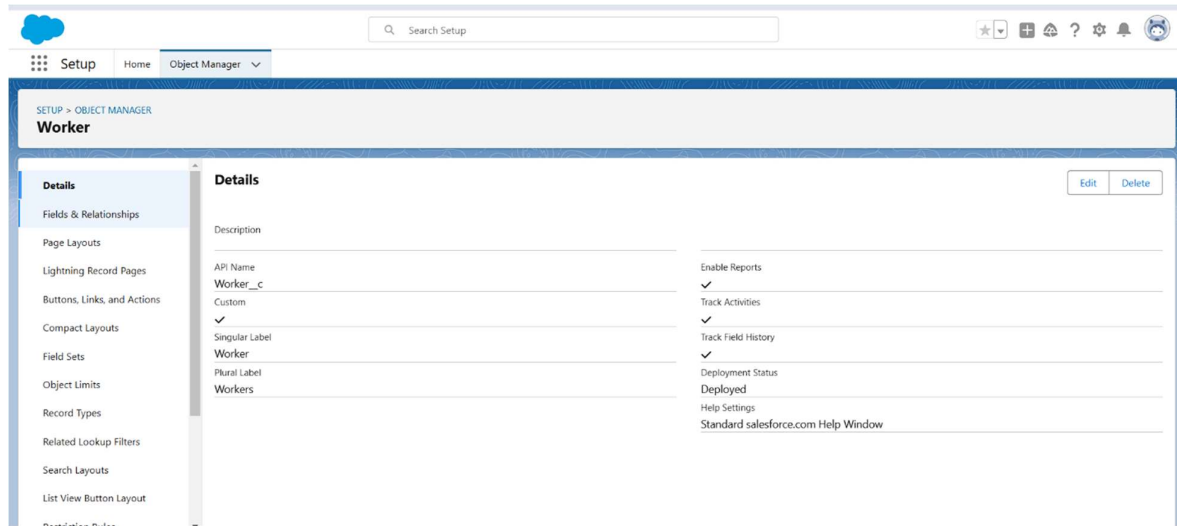
Field	Value
Description	
API Name	Pipe_Lining__c
Custom	<input checked="" type="checkbox"/>
Singular Label	Pipe Lining
Plural Label	Pipe Linings
Enable Reports	<input checked="" type="checkbox"/>
Track Activities	<input checked="" type="checkbox"/>
Track Field History	<input checked="" type="checkbox"/>
Deployment Status	Deployed
Help Settings	Standard salesforce.com Help Window

Buttons for 'Edit' and 'Delete' are located in the top right corner of the details section.

Create Worker Object

To create an object:

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



SETUP > OBJECT MANAGER

Worker

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

Details

Edit Delete

Description

API Name
Worker_c

Custom
✓

Singular Label
Worker

Plural Label
Workers

Enable Reports
✓

Track Activities
✓

Track Field History
✓

Deployment Status
Deployed







Help Settings
Standard salesforce.com Help Window

Milestone 3: Tabs

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.

Custom Object Tabs New What Is This?			
Action	Label	Tab Style	Description
Edit Del	Enhancement Requests	 Building Block	
Edit Del	Fabrications	 Books	
Edit Del	Pipe Linings	 Caduceus	
Edit Del	Research Proposal	 Square	
Edit Del	Shed Works	 Apple	
Edit Del	Workers	 Chess piece	

Web Tabs New What Is This?	
No Web Tabs have been defined	

Visualforce Tabs New What Is This?	
No Visualforce Tabs have been defined	

Milestone 4: The Lightning App

Create a Lightning App

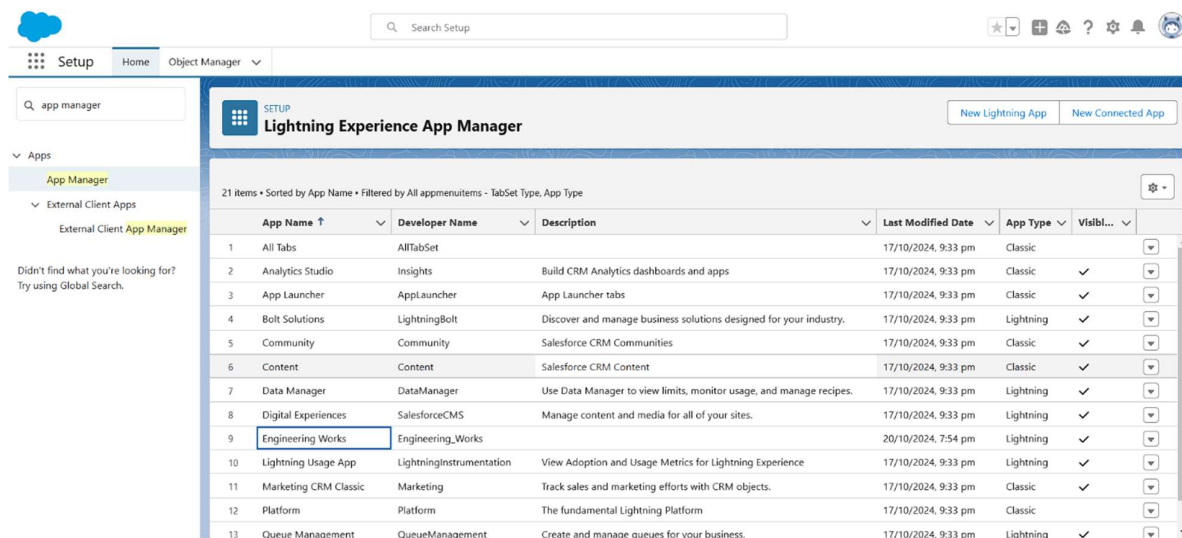
To create a lightning app page:

1. Go to setup page >> search “app manager” in quick find >> select “app manager” >> click on New lightning App.
2. Fill the app name in app details and branding as follow
App Name : Engineering Works
Developer Name : This will auto populated
Image : optional (if you want to give any image you can otherwise not mandatory)
Primary color hex value : keep this default.
3. Then click Next >> (App option page)Set Navigation Style as Standard Navigation >> Next.
4. (Utility Items) keep it as default >> Next.
5. To Add Navigation Items:

Search for the item in the (Fabrications, Shed Works, Pipe Linings, Workers) from the search bar and move it using the arrow button >> Next >> Next.

6. To Add User Profiles:

Search profiles (System administrator) in the search bar >> click on the arrow button >> save & finish.



The screenshot shows the Salesforce Lightning Experience App Manager setup page. The left sidebar contains a search bar with 'app manager' entered and a list of apps. The main content area displays a table of 21 items, sorted by App Name. The 'Engineering Works' app is highlighted in the list.

App Name	Developer Name	Description	Last Modified Date	App Type	Visibl...
1 All Tabs	AllTabSet		17/10/2024, 9:33 pm	Classic	
2 Analytics Studio	Insights	Build CRM Analytics dashboards and apps	17/10/2024, 9:33 pm	Classic	✓
3 App Launcher	AppLauncher	App Launcher tabs	17/10/2024, 9:33 pm	Classic	✓
4 Bolt Solutions	LightningBolt	Discover and manage business solutions designed for your industry.	17/10/2024, 9:33 pm	Lightning	✓
5 Community	Community	Salesforce CRM Communities	17/10/2024, 9:33 pm	Classic	✓
6 Content	Content	Salesforce CRM Content	17/10/2024, 9:33 pm	Classic	✓
7 Data Manager	DataManager	Use Data Manager to view limits, monitor usage, and manage recipes.	17/10/2024, 9:33 pm	Lightning	✓
8 Digital Experiences	SalesforceCMS	Manage content and media for all of your sites.	17/10/2024, 9:33 pm	Lightning	✓
9 Engineering Works	Engineering_Works		20/10/2024, 7:54 pm	Lightning	✓
10 Lightning Usage App	LightningInstrumentation	View Adoption and Usage Metrics for Lightning Experience	17/10/2024, 9:33 pm	Lightning	✓
11 Marketing CRM Classic	Marketing	Track sales and marketing efforts with CRM objects.	17/10/2024, 9:33 pm	Classic	✓
12 Platform	Platform	The fundamental Lightning Platform	17/10/2024, 9:33 pm	Classic	✓
13 Queue Management	QueueManagement	Create and manage queues for your business.	17/10/2024, 9:33 pm	Lightning	✓

Milestone 5: 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
5. Fill the Above as following:
 - Field Label: Name of the Owner
 - Field Name :Name_of_the_Owner
 - Length : 125
 - Required :check box.
 - Click on Next >> Next >> Save and new.

To create another 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” and Click on Next
4. Fill the Above as following:
 - Field Label : Name of Company.
 - Field Name :Name_of_Company
 - Click on Next >> Next >> Save and new.

To create another 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 “Number” and Click on Next
4. Fill the Above as following:
 - Field Label: Length
 - Field Name : Length
 - Length : 16
 - Decimal Value : 2
 - Required :check box
 - Click on Next >> Next >> Save and new.

To create another 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 “Number” and Click on Next

4. Fill the Above as following:
 - Field Label: Breadth
 - Field Name : Breadth
 - Length : 16
 - Decimal Value : 2
 - Required :check box
 - Click on Next >> Next >> Save and new.

To create another 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 “Number” and Click on Next
4. Fill the Above as following:
 - Field Label: Width
 - Field Name : Width
 - Length : 16
 - Decimal Value : 2
 - Required :check box
 - Click on Next >> Next >> Save and new.

To create another 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 “Formula” and Click on Next
4. Fill the Above as following:
 - Field Label: Area
 - Field Name : Area
 - Formula Return Type : Select Number
 - Enter Formula :Length__c * Breadth__c * Width__c (Insert this fields using “Insert Field” Option)
 - Click on Next >> Next >> Save and new.

To create another 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 “Number” and Click on Next
4. Fill the Above as following:
 - Field Label: Cost per Meter
 - Field Name :Cost_per_meter
 - Set the Default value to ‘2’
 - Click on Next >> Select the read only checkbox
 - Click on Next >> Save and new.

To create another 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 “Number” and Click on Next
4. Fill the Above as following:
 - Field Label: Quantity
 - Field Name : Quantity
 - Length : 16
 - Decimal Value : 2
 - Required :check box
 - Click on Next >> Next >> Save and new.

To create another 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 “Formula” and Click on Next
4. Fill the Above as following:
 - Field Label: Amount
 - Field Name : Amount
 - Formula Return Type : Select Currency
 - Enter Formula :Area __c * Cost_per_meter__c * Quantity_c(Insert this fields using “Insert Field” Option)
 - Click on Next >> Next >> Save and new.

To create another 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 “Picklist” and Click on Next
4. Fill the Above as following:
 - Field Label: Material Type
 - Field Name :Material_Type
 - Values : Select Enter values, with each value separated by a new line
 - Enter this values in box :
Iron
Aluminum
Metal
Wood
Steel
 - Click on Next >> Next >> Save and new.

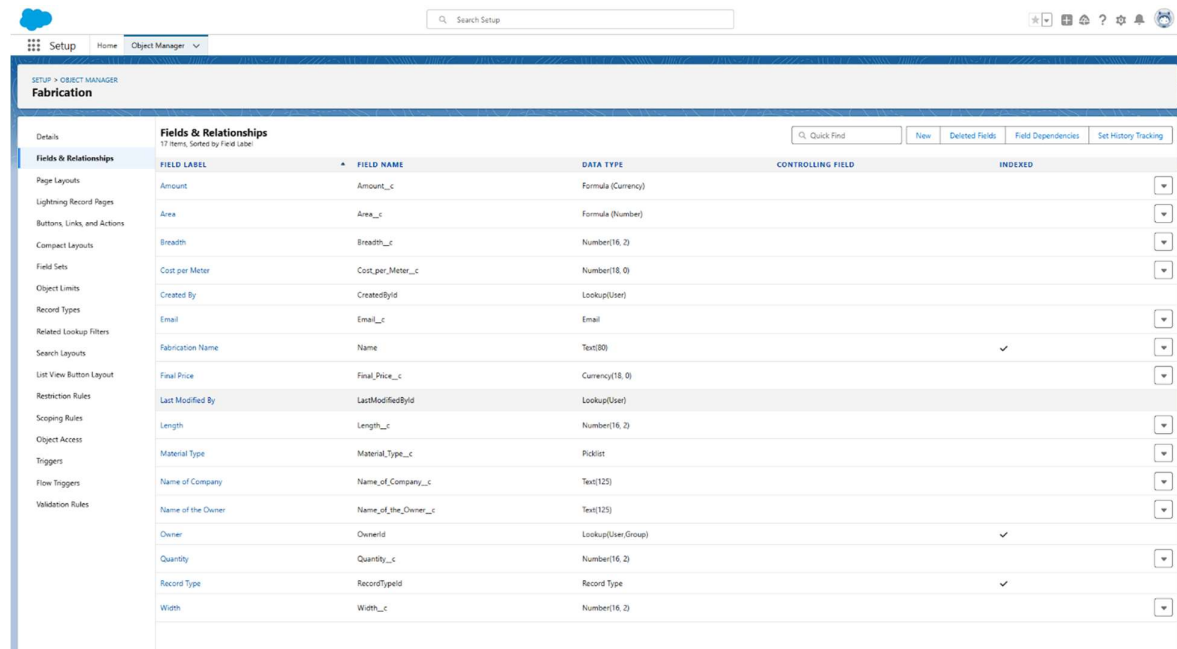
To create another fields in an object:

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 “Currency” and Click on Next
4. Fill the Above as following:
 - Field Label: Final Price
 - Field Name : Final_Price
 - Click on Next >> Next >> Save and new.

To create another 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 “Email” and Click on Next
4. Fill the Above as following:
 - Field Label: Email
 - Field Name : Email
 - Click on Next >> Next >> Save.



FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Amount	Amount__c	Formula (Currency)		
Area	Area__c	Formula (Number)		
Breadth	Breadth__c	Number(16, 2)		
Cost per Meter	Cost_per_Meter__c	Number(18, 0)		
Created By	CreatedById	Lookup(User)		
Email	Email__c	Email		
Fabrication Name	Name	Text(80)		✓
Final Price	Final_Price__c	Currency(18, 0)		
Last Modified By	LastModifiedById	Lookup(User)		
Length	Length__c	Number(16, 2)		
Material Type	Material_Type__c	Picklist		
Name of Company	Name_of_Company__c	Text(125)		
Name of the Owner	Name_of_the_Owner__c	Text(125)		
Owner	OwnerId	Lookup(User, Group)		✓
Quantity	Quantity__c	Number(16, 2)		
Record Type	RecordTypeId	Record Type		✓
Width	Width__c	Number(16, 2)		

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 : Nameof the Company
 - Field Name : gets auto generated
 - Click on required check box
 - Click on Next >> Next >> Save and new.

To create another fields in an 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 Owner
 - Field Name :Name_of_Owner
 - Click on required check box
 - Click on Next >> Next >> Save and new.

To create another fields in an 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 “Number” and Click on Next
4. Fill the Above as following:
 - Field Label: Breadth
 - Field Name : Breadth
 - Length : 16
 - Decimal Value : 2
 - Required :check box
 - Click on Next >> Next >> Save and new.

To create another fields in an 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 “Number” and Click on Next
4. Fill the Above as following:
 - Field Label: Width
 - Field Name : Width
 - Length : 16
 - Decimal Value : 2
 - Required :check box
 - Click on Next >> Next >> Save and new.

To create another fields in an 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 “Formula” and Click on Next
4. Fill the Above as following:
 - Field Label: Area
 - Field Name : Area
 - Formula Return Type : Select Number

- Enter Formula :Height__c * Breadth__c * Width__c (Insert this fields using “Insert Field” Option)

To create another fields in an 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 “Formula” and Click on Next
4. Fill the Above as following:
 - Field Label: Area Sheet
 - Field Name :Area_Sheet
 - Formula Return Type : Select Number
 - Enter Formula :Height__c * Breadth__c (Insert this fields using “Insert Field” Option)

To create another fields in an 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 “Number” and Click on Next
4. Fill the Above as following:
 - Field Label: Cost per Meter
 - Field Name :Cost_per_meter
 - Set the Default value to ‘2’
 - Click on Next >> Select the read only checkbox
 - Click on Next >> Save and new.

To create another fields in an 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 “Number” and Click on Next
4. Fill the Above as following:
 - Field Label: Quantity
 - Field Name : Quantity
 - Length : 16
 - Decimal Value : 2
 - Required :check box
 - Click on Next >> Next >> Save and new

To create another fields in an 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 “Number” and Click on Next
4. Fill the Above as following:
 - FieldLabel: Cost per meter sheet
 - Field Name :Cost_per_meter_sheet
 - Set the Default value to ‘2’

- Click on Next >> Select the read only checkbox
- Click on Next >> Save and new.

To create another fields in an 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 “Formula” and Click on Next
4. Fill the Above as following:
 - Field Label: Amount
 - Field Name : Amount
 - Formula Return Type : Select Currency
 - Enter Formula :Area__c * Cost_per_meter__c * Quantity_c(Insert this fields using “Insert Field” Option)
 - Click on Next >> Next >> Save and new.

To create another fields in an 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 “Formula” and Click on Next
4. Fill the Above as following:
 - FieldLabel: Amount Sheet
 - Field Name :Amount_Sheet
 - Formula Return Type : Select Currency
 - Enter Formula :Cost_per_meter_sheet__c * Area_Sheet__c * Quantity_c(Insert this fields using “Insert Field” Option)
 - Click on Next >> Next >> Save and new.

To create another fields in an 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 “Picklist” and Click on Next
4. Fill the Above as following:
 - FieldLabel: Material Type
 - Field Name :Material_Type
 - Values : Select Enter values, with each value separated by a new line
 - Enter this values in box :

Iron

Metal

Steel

- Click on Next >> Next >> Save and new.

To create another fields in an 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 “Picklist” and Click on Next
4. Fill the Above as following:
 - Field Label: Material Type Sheet
 - Field Name :Material_Type_Sheet
 - Values : Select Enter values, with each value separated by a new line
 - Enter this values in box :

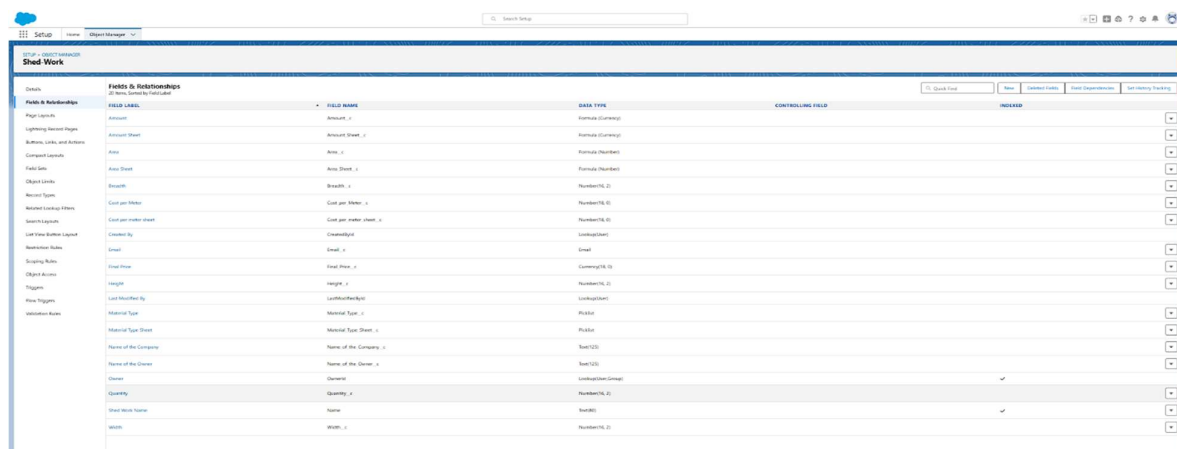
Plastic
 Metal
 Rubber
 - Click on Next >> Next >> Save and new.

To create another fields in an 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 “Currency” and Click on Next
4. Fill the Above as following:
 - Field Label: Final Price
 - Field Name :Final_Price
 - Click on Next >> Next >> Save and new.

To create another fields in an 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 “Email” and Click on Next
4. Fill the Above as following:
 - FieldLabel: Email
 - Field Name : Email
 - Click on Next >> Next >> Save.



FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	REQUIRED
Amount	Amount_c	Estimate (Currency)		
Amount Sheet	Amount_Sheet_c	Estimate (Currency)		
Area	Area_c	Estimate (Number)		
Area Sheet	Area_Sheet_c	Estimate (Number)		
Brands	Brands_c	Number(16, 0)		
Cost per Meter	Cost per Meter_c	Number(16, 0)		
Cost per meter sheet	Cost per meter sheet_c	Number(16, 0)		
Created By	CreatedBy	Lookup(Owner)		
Email	Email_c	Email		
Final Price	Final Price_c	Currency(16, 0)		
Height	Height_c	Number(16, 0)		
LookupSheet By	LookupSheetBy	Lookup(Owner)		
Material Type	Material Type_c	Picklist		
Material Type Sheet	Material Type Sheet_c	Picklist		
Name of the Company	Name of the Company_c	Text(255)		
Name of the Owner	Name of the Owner_c	Text(255)		
Owner	Owner	Lookup(Owner)		
Quantity	Quantity_c	Number(16, 0)		
Shed Work Name	Name	Text(80)		
Width	Width_c	Number(16, 0)		

Creation of fields for the Pipe Lining object

1. 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.

To create another fields in an object:

1. 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:
 - FieldLabel : Name of the Owner
 - Field Name :Name_of_Owner
 - Click on required check box
 - Click on Next >> Next >> Save and new.

To create another fields in an object:

1. 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 “Number” and Click on Next
4. Fill the Above as following:
 - FieldLabel: Height
 - Field Name : Height
 - Length : 16
 - Decimal Value : 2
 - Required :check box
 - Click on Next >> Next >> Save and new.

To create another fields in an object:

1. 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 “Number” and Click on Next
4. Fill the Above as following:
 - Field Label: Width
 - Field Name : Width
 - Length : 16
 - Decimal Value : 2
 - Required :check box
 - Click on Next >> Next >> Save and new.

To create another fields in an object:

1. 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 “Number” and Click on Next
4. Fill the Above as following:
 - Field Label: Diameter
 - Field Name : Diameter
 - Length : 16
 - Decimal Value : 2
 - Required :check box
 - Click on Next >> Next >> Save and new.

To create another fields in an object:

1. 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 “Formula” and Click on Next
4. Fill the Above as following:
 - Field Label: Area
 - Field Name : Area
 - Formula Return Type : Select Number
 - Enter Formula : $\text{PI() * Height_c * Diameter_c}$ (Insert this fields using “Insert Field” Option)

To create another fields in an object:

1. 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 “Number” and Click on Next
4. Fill the Above as following:
 - FieldLabel: Cost per Meter
 - Field Name :Cost_per_meter
 - Set the Default value to ‘2’
 - Click on Next >> Select the read only checkbox
 - Click on Next >> Save and new.

To create another fields in an object:

1. 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 “Number” and Click on Next
4. Fill the Above as following:
 - FieldLabel: Quantity
 - Field Name : Quantity
 - Length : 16
 - Decimal Value : 2

- Required :check box
- Click on Next >> Next >> Save and new

To create another fields in an object:

1. 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 “Formula” and Click on Next
4. Fill the Above as following:
 - Field Label: Amount
 - Field Name : Amount
 - Formula Return Type : Select Currency
 - Enter Formula :Area__c * Cost_per_meter__c * Quantity_c(Insert this fields using “Insert Field” Option)
 - Click on Next >> Next >> Save and new.

To create another fields in an object:

1. 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 “Picklist” and Click on Next
4. Fill the Above as following:
 - FieldLabel: Material Type
 - Field Name :Material_Type
 - Values : Select Enter values, with each value separated by a new line
 - Enter this values in box :

Iron

Metal

Aluminum

- Click on Next >> Next >> Save and new.

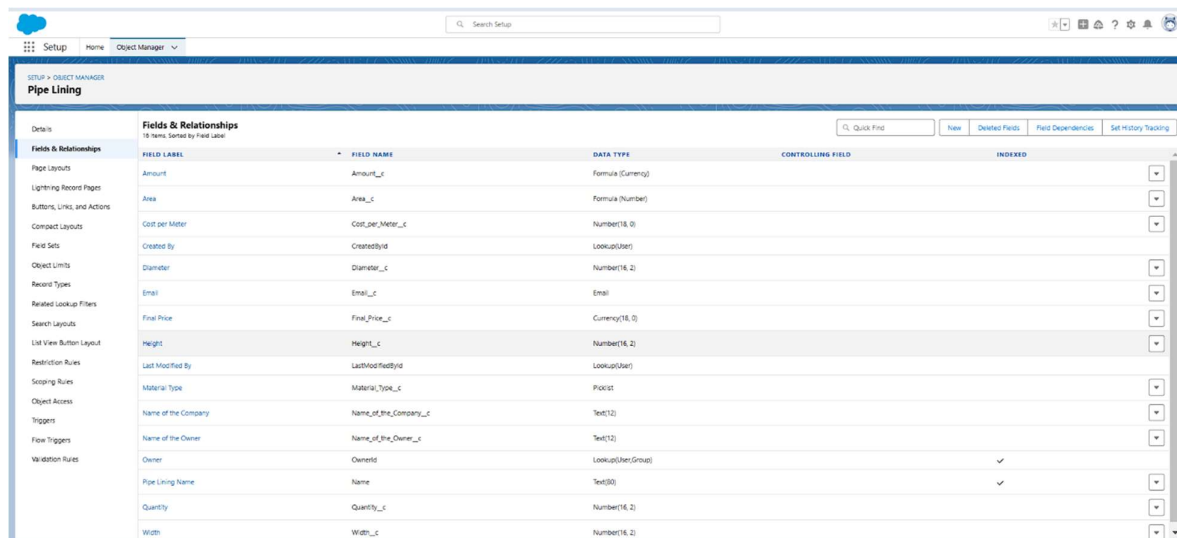
To create another fields in an object:

1. 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 “Currency” and Click on Next
4. Fill the Above as following:
 - Field Label: Final Price
 - Field Name :Final_Price
 - Click on Next >> Next >> Save and new.

To create another fields in an object:

1. 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 “Email” and Click on Next
4. Fill the Above as following:
 - FieldLabel: Email

- Field Name : Email
- Click on Next >> Next >> Save.



FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Amount	Amount_c	Formula (Currency)		
Area	Area_c	Formula (Number)		
Cost per Meter	Cost_per_Meter_c	Number(18, 0)		
Created By	CreatedById	Lookup(User)		
Diameter	Diameter_c	Number(16, 2)		
Email	Email_c	Email		
Final Price	Final_Price_c	Currency(18, 0)		
Height	Height_c	Number(16, 2)		
Last Modified By	LastModifiedById	Lookup(User)		
Material Type	Material_Type_c	Picklist		
Name of the Company	Name_of_the_Company_c	Text(12)		
Name of the Owner	Name_of_the_Owner_c	Text(12)		
Owner	OwnerId	Lookup(User/Group)		✓
Pipe Lining Name	Name	Text(30)		✓
Quantity	Quantity_c	Number(16, 2)		
Width	Width_c	Number(16, 2)		

Creation of fields for the Worker object

1. 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:
 - FieldLabel : Worker Name
 - Field Name : gets auto generated
 - Length : 125
 - Click on Next >> Next >> Save and new.

To create another fields in an object:

1. 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 “Number” and Click on Next
4. Fill the Above as following:
 - FieldLabel: Phone Number
 - Field Name :Phone_Number
 - Length : 10
 - Required :check box
 - Click on Next >> Next >> Save and new.

To create another fields in an object:

1. 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 “Picklist” and Click on Next
4. Fill the Above as following:
 - FieldLabel: Designation
 - Field Name : Designation
 - Values : Select Enter values, with each value separated by a new line
 - Enter this values in box :

Accountant

Welder

Driller

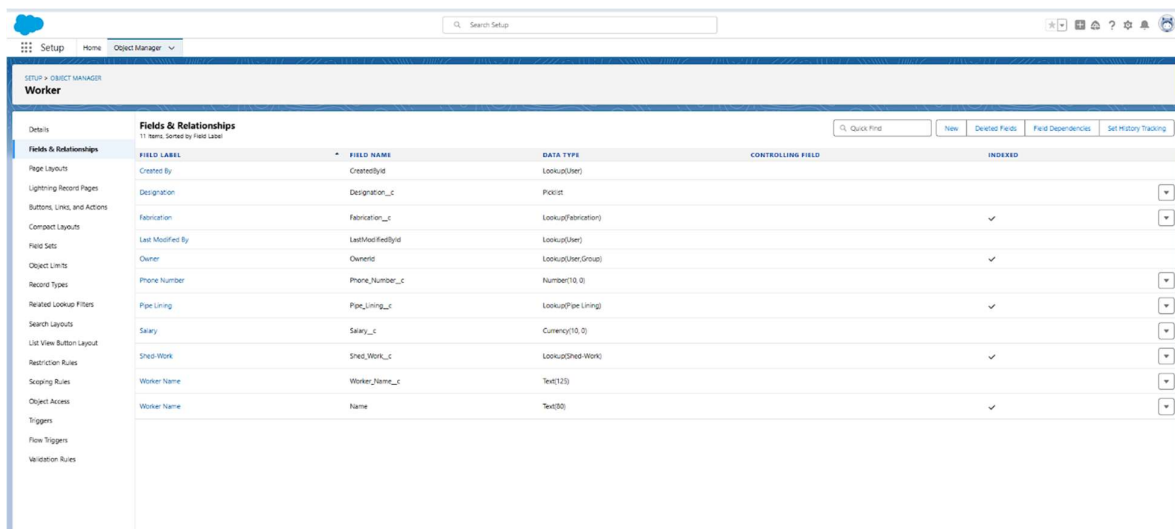
Pitter

Manager

- Click on Next >> Next >> Save and new.

To create another fields in an object:

1. 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 “Currency” and Click on Next
4. Fill the Above as following:
 - FieldLabel: Salary
 - Field Name : Salary
 - Length : 10
 - Required :check box
 - Click on Next >> Next >> Save and new.



FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Created By	CreatedById	Lookup(User)		
Designation	Designation_c	Picklist		
Fabrication	Fabrication_c	Lookup(Fabrication)		✓
Last Modified By	LastModifiedById	Lookup(User)		
Owner	OwnerId	Lookup(User Group)		✓
Phone Number	Phone_Number_c	Number(10, 0)		
Pipe Lining	Pipe_Lining_c	Lookup(Pipe Lining)		✓
Salary	Salary_c	Currency(10, 0)		
Shed Work	Shed_WORK_c	Lookup(Shed Work)		✓
Worker Name	Worker_Name_c	Text(12)		
Worker Name	Name	Text(50)		✓

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.

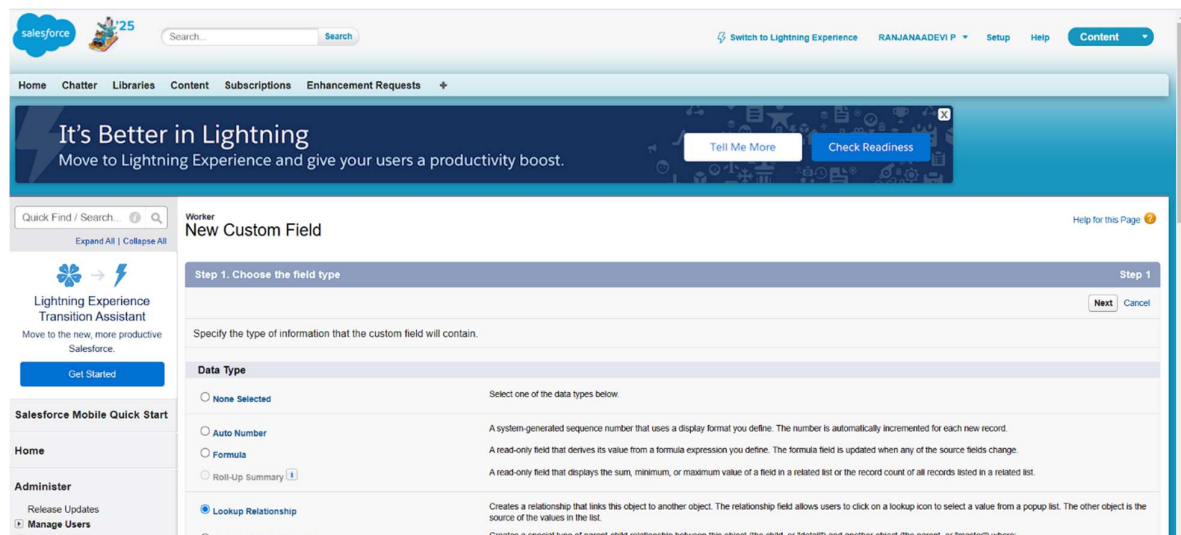
2. Now click on “Fields & Relationships” >> New
3. Select lookup relationship
4. Select the related object “Fabrication” and click next.
5. Field Name : Fabrication
6. Field label : Auto generated
7. Next >> Next >> Save.

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 “Shed-Work” and click next.
5. Field Name : Shed-Work
6. Field label : Auto generated
7. Next >> Next >> Save.

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 “Pipe Lining” and click next.
5. Field Name : Pipe Lining
6. Field label : Auto generated
7. Next >> Next >> Save.



salesforce 25 Search

Switch to Lightning Experience RANJANADEV P Setup Help Content

Home Chatter Libraries Content Subscriptions Enhancement Requests

It's Better in Lightning
Move to Lightning Experience and give your users a productivity boost.

Quick Find / Search

Expand All | Collapse All

Lightning Experience Transition Assistant
Move to the new, more productive Salesforce.
Get Started

Salesforce Mobile Quick Start

Home

Administer
Release Updates
Manage Users

Worker
New Custom Field

Step 1. Choose the field type Step 1

Specify the type of information that the custom field will contain.

Data Type

☐ None Selected Select one of the data types below.

☐ Auto Number A system-generated sequence number that uses a display format you define. The number is automatically incremented for each new record.

☐ Formula A read-only field that derives its value from a formula expression you define. The formula field is updated when any of the source fields change.

☐ Roll-Up Summary A read-only field that displays the sum, minimum, or maximum value of a field in a related list or the record count of all records listed in a related list.

☒ Lookup Relationship Creates a relationship that links this object to another object. The relationship field allows users to click on a lookup icon to select a value from a popup list. The other object is the source of the values in the list.

☐ Master-Detail Relationship Creates a special type of parent-child relationship between this object (the child, or "detail") and another object (the parent, or "master") where:

Next Cancel

Milestone 6: Creation of Page Layouts

To create a Page Layout in Fabrication Object for Drilling

1. Go to the setup page >> click on object manager >> From drop down click edit for Fabrication object.
2. Click on the Page Layouts >> click New.
3. Enter details as
 - Page Layout Name : Drilling Page Layout.
 - Click on Save.
4. Drag and Arrange the field as shown below.
5. Click Save.

To create a Page Layout in Fabrication Object for Welding

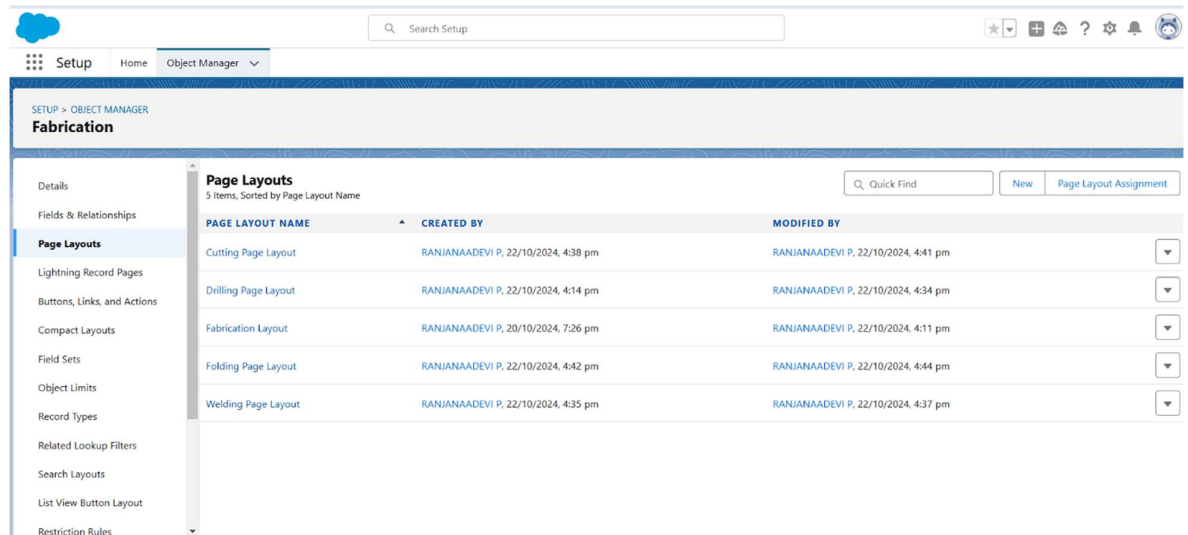
1. Go to the setup page >> click on object manager >> From drop down click edit for Fabrication object.
2. Click on the Page Layouts >> click New.
3. Enter details as
 - Page Layout Name : Welding Page Layout
 - Click on Save
4. Drag and Arrange the field as shown below
5. Click on save.

To create a Page Layout in Fabrication Object for Cutting

1. Go to the setup page >> click on object manager >> From drop down click edit for Fabrication object.
2. Click on the Page Layouts >> click New.
3. Enter details as
 - Page Layout Name : Cutting Page Layout
 - Click on Save
4. Drag and Arrange the field as shown below
5. Click Save.

To create a Page Layout in Fabrication Object for Folding

1. Go to the setup page >> click on object manager >> From drop down click edit for Fabrication object.
2. Click on the Page Layouts >> click New.
3. Enter details as
 - Page Layout Name :Folding Page Layout.
 - Click on Save .
4. Drag and Arrange the field as shown below
5. Click Save



SETUP > OBJECT MANAGER
Fabrication

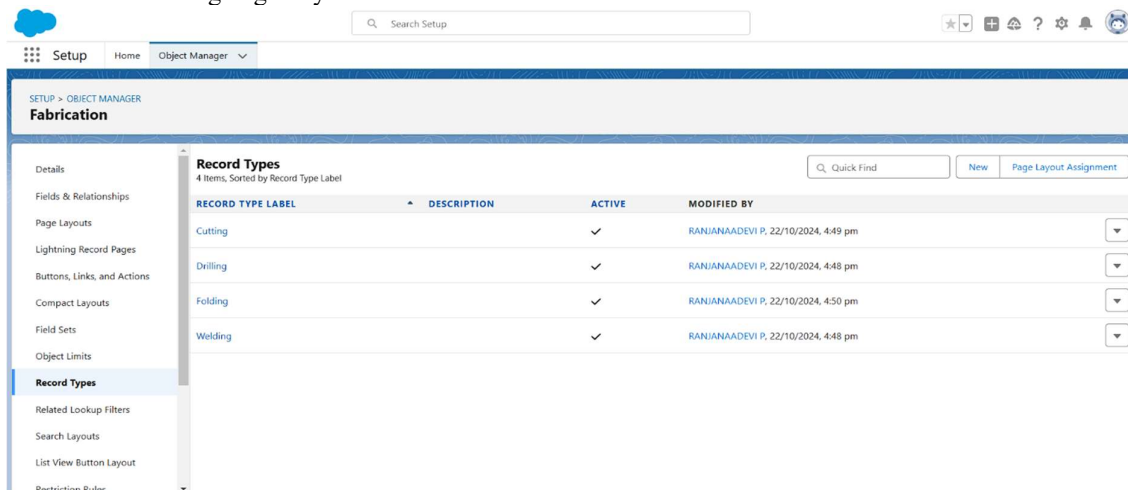
Details
Fields & Relationships
Page Layouts
Lightning Record Pages
Buttons, Links, and Actions
Compact Layouts
Field Sets
Object Limits
Record Types
Related Lookup Filters
Search Layouts
List View Button Layout
Restriction Rules

Page Layouts
5 Items, Sorted by Page Layout Name

PAGE LAYOUT NAME	CREATED BY	MODIFIED BY
Cutting Page Layout	RANJANA ADEVI P, 22/10/2024, 4:38 pm	RANJANA ADEVI P, 22/10/2024, 4:41 pm
Drilling Page Layout	RANJANA ADEVI P, 22/10/2024, 4:14 pm	RANJANA ADEVI P, 22/10/2024, 4:34 pm
Fabrication Layout	RANJANA ADEVI P, 20/10/2024, 7:26 pm	RANJANA ADEVI P, 22/10/2024, 4:11 pm
Folding Page Layout	RANJANA ADEVI P, 22/10/2024, 4:42 pm	RANJANA ADEVI P, 22/10/2024, 4:44 pm
Welding Page Layout	RANJANA ADEVI P, 22/10/2024, 4:35 pm	RANJANA ADEVI P, 22/10/2024, 4:37 pm

Milestone 7: Creation of Record Types

- Go to the setup page >> click on object manager >> From drop down click edit for Fabrication object.
- Click on the Record Types >> click New.
- Enter the details : For Record Types
 - Existing RecordTypes : Master
 - Record Type Label : Drilling
 - Record Type Name : Drilling
 - Active : Tick checkbox
- Click on Next
- In Assign Page Layout
 - Apply one layout to all profiles : Select Drilling Page Layout
- Click on Save
Similarly, Create the Record Types on Welding Page Layout, Cutting Page Layout and Folding Page Layout



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

RECORD TYPE LABEL	DESCRIPTION	ACTIVE	MODIFIED BY
Cutting		✓	RANJANA ADEVI P, 22/10/2024, 4:49 pm
Drilling		✓	RANJANA ADEVI P, 22/10/2024, 4:48 pm
Folding		✓	RANJANA ADEVI P, 22/10/2024, 4:50 pm
Welding		✓	RANJANA ADEVI P, 22/10/2024, 4:48 pm

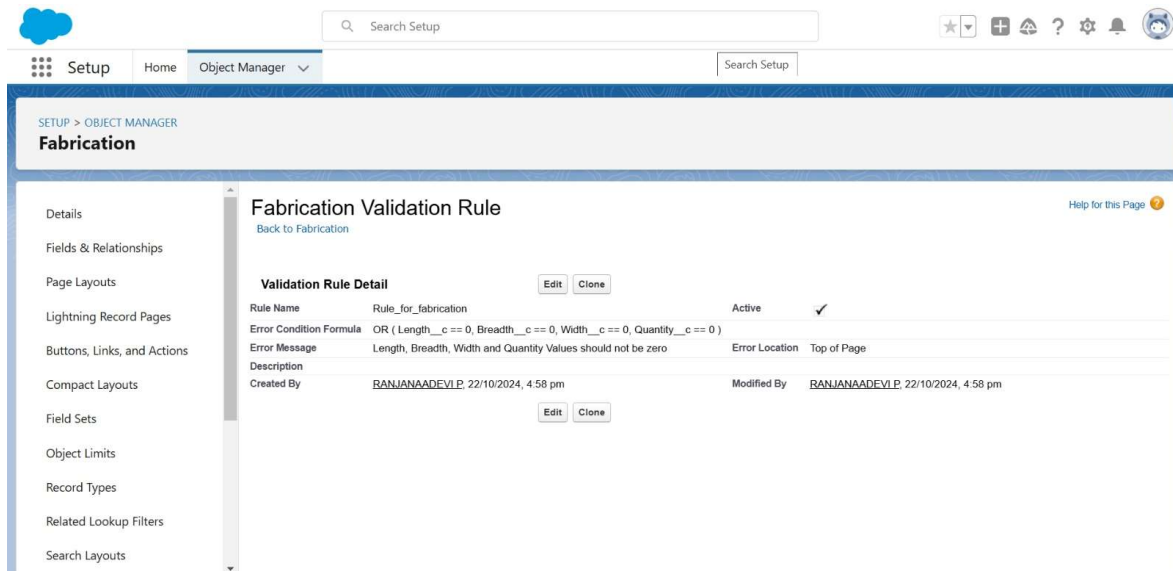
Milestone 8: Validation Rule

To create a validation rule to an Fabrication Object:

1. Go to the setup page >> click on object manager >> From drop down click edit for Fabrication object.
2. Click on the validation rule >> click New.
3. Enter the Rule name as “Rule_for_fabrication”.
4. Insert the Error Condition Formula as :

$$\text{OR}(\text{Length_c} == 0, \text{Breadth_c} == 0, \text{Width_c} == 0, \text{Quantity} == 0)$$
5. Enter the Error Message as “Length, Breadth, Width and Quantity Values should not be zero”, select the Error location as Top of Page and click Save.

Fabrication Validation Rule:

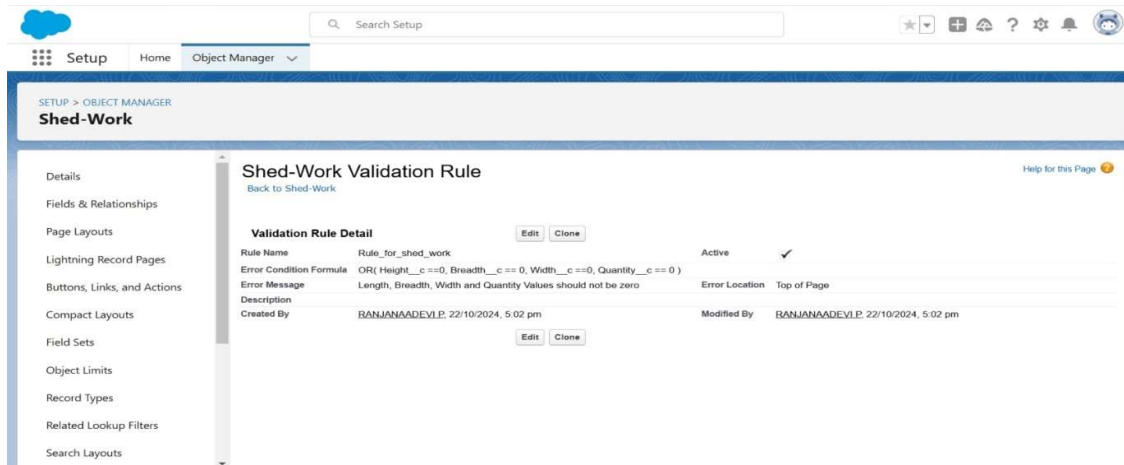


The screenshot shows the Salesforce Setup interface for the Fabrication object. The left sidebar lists various setup options, and the main area displays the 'Fabrication Validation Rule' details. The rule is named 'Rule_for_fabrication', is active, and has the error condition formula: $\text{OR}(\text{Length_c} == 0, \text{Breadth_c} == 0, \text{Width_c} == 0, \text{Quantity_c} == 0)$. The error message is 'Length, Breadth, Width and Quantity Values should not be zero', and the error location is 'Top of Page'. The rule was created by 'RANJANADEVILP' on 22/10/2024 at 4:58 pm.

Validation Rule Detail		Active	✓
Rule Name	Rule_for_fabrication		
Error Condition Formula	$\text{OR}(\text{Length_c} == 0, \text{Breadth_c} == 0, \text{Width_c} == 0, \text{Quantity_c} == 0)$		
Error Message	Length, Breadth, Width and Quantity Values should not be zero	Error Location	Top of Page
Description			
Created By	RANJANADEVILP: 22/10/2024, 4:58 pm	Modified By	RANJANADEVILP: 22/10/2024, 4:58 pm

Create the Validation Rule for Shed-Work and Pipe Lining Object Similarly by following the Activity 1 Steps.

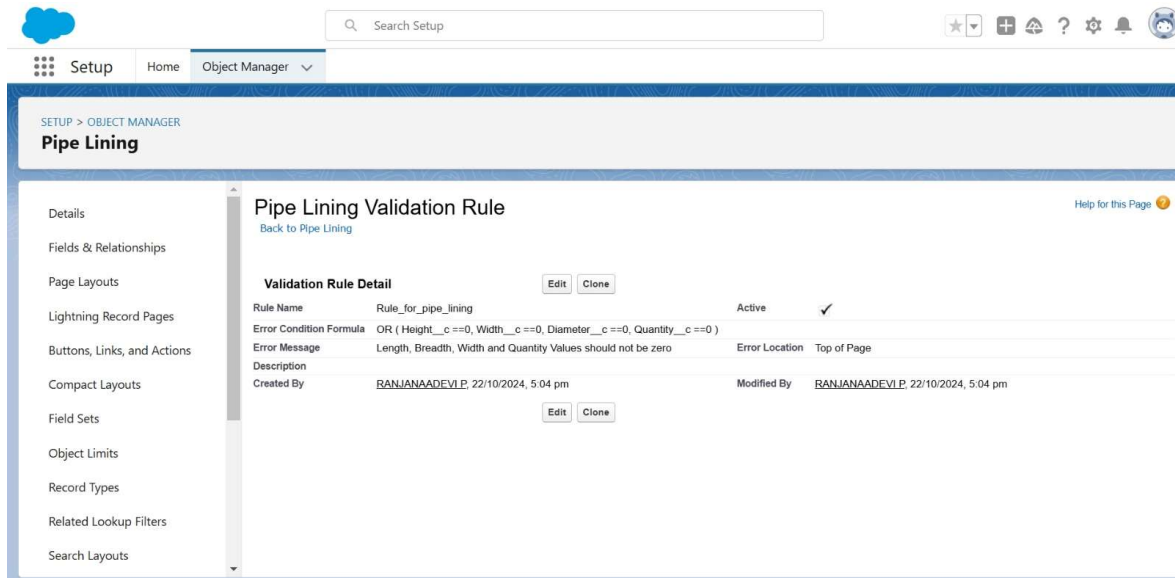
Shed-Work Validation Rule:



The screenshot shows the Salesforce Setup interface for the Shed-Work object. The left sidebar lists various setup options, and the main area displays the 'Shed-Work Validation Rule' details. The rule is named 'Rule_for_shed_work', is active, and has the error condition formula: $\text{OR}(\text{Height_c} == 0, \text{Breadth_c} == 0, \text{Width_c} == 0, \text{Quantity_c} == 0)$. The error message is 'Length, Breadth, Width and Quantity Values should not be zero', and the error location is 'Top of Page'. The rule was created by 'RANJANADEVILP' on 22/10/2024 at 5:02 pm.

Validation Rule Detail		Active	✓
Rule Name	Rule_for_shed_work		
Error Condition Formula	$\text{OR}(\text{Height_c} == 0, \text{Breadth_c} == 0, \text{Width_c} == 0, \text{Quantity_c} == 0)$		
Error Message	Length, Breadth, Width and Quantity Values should not be zero	Error Location	Top of Page
Description			
Created By	RANJANADEVILP: 22/10/2024, 5:02 pm	Modified By	RANJANADEVILP: 22/10/2024, 5:02 pm

Pipe Lining Validation Rule:



The screenshot shows the Salesforce Setup interface for the 'Pipe Lining' 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, and Search Layouts. The main content area is titled 'Pipe Lining Validation Rule' and includes a 'Back to Pipe Lining' link. Below the title is a 'Validation Rule Detail' section with the following information:

Validation Rule Detail		Edit		Clone	
Rule Name	Rule_for_pipe_lining	Active	<input checked="" type="checkbox"/>		
Error Condition Formula	OR (Height__c ==0, Width__c ==0, Diameter__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	RANJANADEVIL.P. 22/10/2024, 5:04 pm	Modified By	RANJANADEVIL.P. 22/10/2024, 5:04 pm		
		Edit		Clone	

Milestone 9: Email Templates

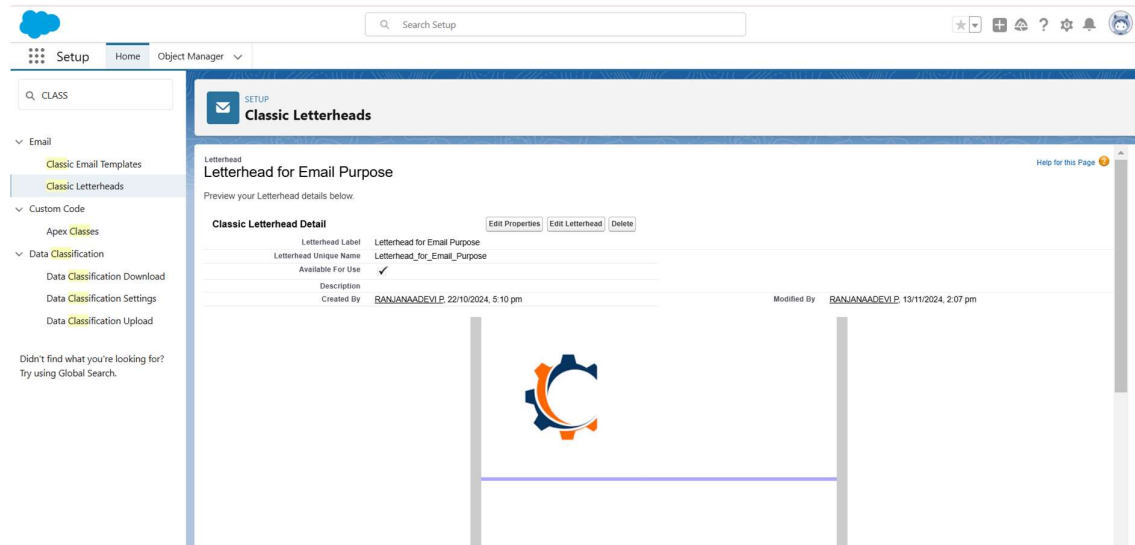
Upload Logo into Salesforce

1. Go to the setup page >> In quick find box search for Salesforce Branding >> Click on Edit.
2. In Loading Page Logo >> Choose File >> Select the image and click open >> Click on Save.
Logo:

Creation of Letterhead for Email purpose.

1. Go to the setup page >> In quick find box search for Classic Letterheads >> Click on New Letterhead.
2. Check Available for use box.
3. Letterhead Label : Letterhead for Email Purpose
4. Letterhead Unique Name : Auto-populated
5. Click on Save >> Now click on Letterhead for Email Purpose then Edit Letterhead.
6. Click on select logo >> Now select the logo and click save.

Letter Head for Email Purpose:



Create Email Template.

To create Email Template:

1. Go to setup in quick find box enter email template >> click on classic Email Template.
2. Click on >> New Email Template====>HTML (using Classic Letterhead)
Folder : Unfiled public Classic Email templates
Click on available for use
3. Email Template Name is "Bill Template"
4. Template Unique Name : Auto populated
5. Subject : "Fabrication Templates"
6. Email body :

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.

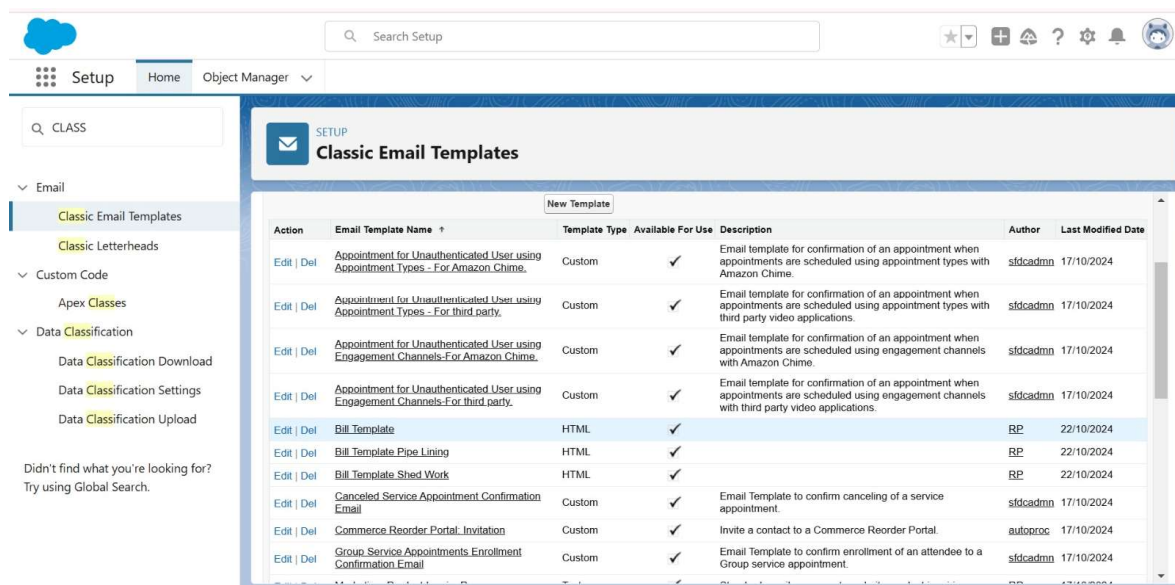
7. Save

Similarly Create an Email Template for Shed-work Object and Pipe Lining Object.

Create Email Alert.

1. Go to setup in quick find box enter email Alert >> New Email Alert
2. Description : Email Alert for Fabrication Object
Unique Name : Auto-Populated
Object : Fabrication
Email Template : select the template that is for fabrication Object
Recipients : User: Integration User, User : System Administrator, user : Security User
3. Click Save
Similarly create for Pipe-Lining and Shed-Work objects

Final output for classic Email Templates:



The screenshot shows the Salesforce Classic Email Templates setup page. The left sidebar contains navigation links for Setup, Home, and Object Manager. The main content area displays a table of email templates. The table has columns for Action, Email Template Name, Template Type, Available For Use, Description, Author, and Last Modified Date. The table lists several templates, including 'Appointment for Unauthenticated User using Appointment Types - For Amazon Chime', 'Appointment for Unauthenticated User using Appointment Types - For third party', 'Appointment for Unauthenticated User using Engagement Channels-For Amazon Chime', 'Appointment for Unauthenticated User using Engagement Channels-For third party', 'Bill Template', 'Bill Template Pipe Lining', 'Bill Template Shed Work', 'Canceled Service Appointment Confirmation Email', 'Commerce Reorder Portal Invitation', and 'Group Service Appointments Enrollment Confirmation Email'.

Action	Email Template Name	Template Type	Available For Use	Description	Author	Last Modified Date
Edit Del	Appointment for Unauthenticated User using Appointment Types - For Amazon Chime	Custom	✓	Email template for confirmation of an appointment when appointments are scheduled using appointment types with Amazon Chime	sfdcadm	17/10/2024
Edit Del	Appointment for Unauthenticated User using Appointment Types - For third party	Custom	✓	Email template for confirmation of an appointment when appointments are scheduled using appointment types with third party video applications.	sfdcadm	17/10/2024
Edit Del	Appointment for Unauthenticated User using Engagement Channels-For Amazon Chime	Custom	✓	Email template for confirmation of an appointment when appointments are scheduled using engagement channels with Amazon Chime.	sfdcadm	17/10/2024
Edit Del	Appointment for Unauthenticated User using Engagement Channels-For third party	Custom	✓	Email template for confirmation of an appointment when appointments are scheduled using engagement channels with third party video applications.	sfdcadm	17/10/2024
Edit Del	Bill Template	HTML	✓		RP	22/10/2024
Edit Del	Bill Template Pipe Lining	HTML	✓		RP	22/10/2024
Edit Del	Bill Template Shed Work	HTML	✓		RP	22/10/2024
Edit Del	Canceled Service Appointment Confirmation Email	Custom	✓	Email Template to confirm canceling of a service appointment.	sfdcadm	17/10/2024
Edit Del	Commerce Reorder Portal Invitation	Custom	✓	Invite a contact to a Commerce Reorder Portal.	autopro	17/10/2024
Edit Del	Group Service Appointments Enrollment Confirmation Email	Custom	✓	Email Template to confirm enrollment of an attendee to a Group service appointment.	sfdcadm	17/10/2024

Milestone 10: Flows

Create Flow to calculate Final Price on Fabrication Object based on Material Type

1. Go to setup >> type Flow in quick find box >> Click on the Flow and Select the New Flow.
2. Select the record Triggered flow. Click on create.
3. Under Object select "Fabrication". Click on A record is created or updated.
4. Set Entry Conditions : None
5. Select Actions and Related Records
6. Under record trigger flow click on "+" icon and select Send Email Alert.
7. In New Action Select Fabrication Template.
8. Label : Mail
9. API Name : Mail

10. Record ID : `{!$Record.Id}`
11. Click Done.
12. Under record trigger flow click on “+” icon and select Decision
 - For New Decision :
 - Label : Material
 - Api Name : Material
 - For Outcome Details :
 - Label : Iron Material
 - Outcome API Name : Iron_Material
 - Condition Requirements to Execute Outcome : Condition Requirements to Execute Outcome
 - Resource : `{!$Record.Material_Type__c}`
 - Operator : Equals
 - Value : Iron

In the Outcome Order click ‘+’ Icon and create another four outcomes for Aluminum, Metal, Wood, Steel(for each outcome keep the respective value)

 - For Aluminum >> Value : Aluminum
 - For Metal >> Value : Metal
 - For Wood >> Value : Wood
 - For Steel >> Value : Steel
13. Under Iron Material click on “+” icon and select Update Related Record.
 - Label : For Iron
 - API Name : For_Iron
 - How to Find Records to Update and Set Their Value : Select Use the fabrication record that triggered the flow
 - Set Filter Conditions : None—Always Update Record
 - Set Field Values for the Fabrication Record
 - Field : Final_price__c
 - For Value click on New resource
 - In Resource Type : Select Formula
 - API Name : IronCost
 - Data Type : Number
 - Decimal Places : 2
 - Formula : `{!$Record.Amount__c} * 2`
 - Click Done
15. Under Aluminum Material click on “+” icon and select Update Related Record.
 - Label : For Aluminum
 - API Name : For_Aluminum
 - How to Find Records to Update and Set Their Value : Select Use the fabrication record that triggered the flow

- Set Filter Conditions : None—Always Update Record
- Set Field Values for the Fabrication Record
Field : Final_price__c
- For Value click on New resource
- In Resource Type : Select Formula
- API Name : AluminumCost

Data Type : Number

Decimal Places : 2

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

- Click Done

16. Under Metal Material click on “+” icon and select Update Related Record.

- Label : For Metal
- API Name : For_Metal
- How to Find Records to Update and Set Their Value : Select Use the fabrication record that triggered the flow
- Set Filter Conditions : None—Always Update Record
- Set Field Values for the Fabrication Record
Field : Final_price__c
- For Value click on New resource
- In Resource Type : Select Formula
- API Name : MetalCost

Data Type : Number

Decimal Places : 2

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

- Click Done

17. Under WoodMaterial click on “+” icon and select Update Related Record.

- Label : For Wood
- API Name : For_Wood
- How to Find Records to Update and Set Their Value : Select Use the fabrication record that triggered the flow
- Set Filter Conditions : None—Always Update Record
- Set Field Values for the Fabrication Record
Field : Final_price__c
- For Value click on New resource
- In Resource Type : Select Formula
- API Name : WoodCost

Data Type : Number

Decimal Places : 2

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

- Click Done

18. Under Steel Material click on “+” icon and select Update Related Record.
 - Label : For Steel
 - API Name : For_Steel
 - How to Find Records to Update and Set Their Value : Select Use the fabrication record that triggered the flow
 - Set Filter Conditions : None—Always Update Record
 - Set Field Values for the Fabrication Record
 - Field : Final_price__c
 - For Value click on New resource
 - In Resource Type : Select Formula
 - API Name : SteelCost

Data Type : Number

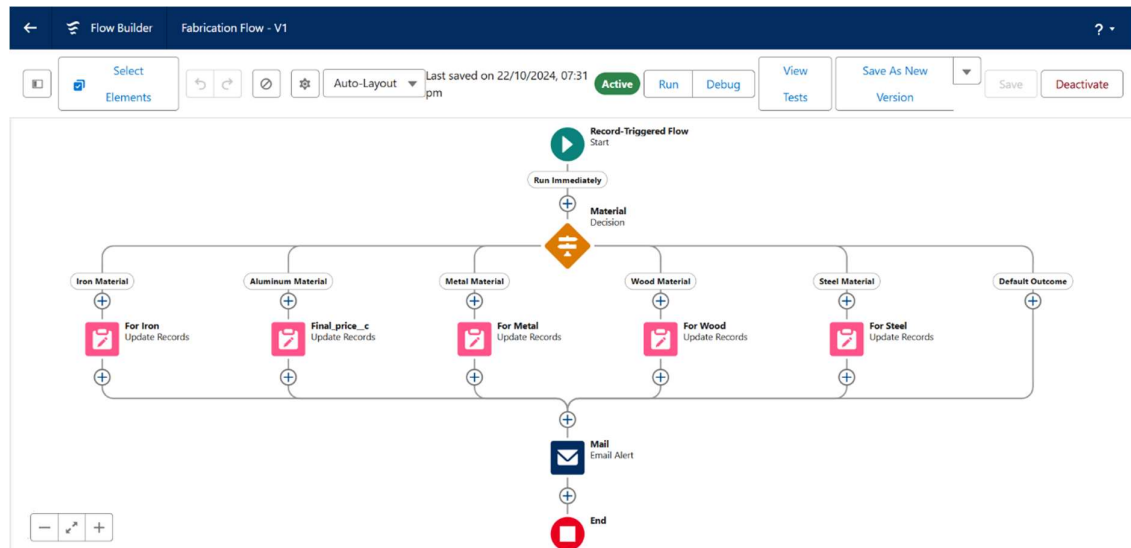
Decimal Places : 2

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

- Click Done

19. Click on Save
 - Flow Label : Fabrication Flow
 - Flow API Name : Fabrication_Flow
 - Click Save and then active

20. The Flow will like this :



Create Flow to calculate Final Price on Shed Work Object based on Material Type

1. Go to setup >> type Flow in quick find box >> Click on the Flow and Select the New Flow.
2. Select the record Triggered flow. Click on create.
3. Under Object select “Shed Work”. Click on A record is created or updated.
4. Set Entry Conditions : None
5. Select Actions and Related Records
6. Under record trigger flow click on “+” icon and select Send Email Alert.
7. In New Action Select Fabrication Template.
8. Label : Mail
9. API Name : Mail
10. Record ID : {!\$Record.Id}
11. Click Done.
12. Under record trigger flow click on “+” icon and select Decision

For New Decision :

- Label : Material
- Api Name : Material

For Outcome Details :

- Label : Iron Material
- Outcome API Name : Iron_Material
- Condition Requirements to Execute Outcome : Condition Requirements to Execute Outcome
- Resource : {!\$Record.Material_Type__c}
- Operator : Equals
- Value : Iron

In the Outcome Order click ‘+’ Icon and create another four outcomes for Metall, Steel(for each outcome keep the respective value)

- For Metall >> Value : Metal
- For Steel >> Value : Steel

13. Under Iron Material click on “+” icon and select Update Related Record.
 - Label : For Iron
 - API Name : For_Iron
 - How to Find Records to Update and Set Their Value : Select Use the Shed-Work record that triggered the flow
 - Set Filter Conditions : None—Always Update Record
 - Set Field Values for the Fabrication Record

Field : Final_price__c

- For Value click on New resource
- In Resource Type : Select Formula
- API Name : IronCost

Data Type : Number

Decimal Places : 2

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

- Click Done

15. Under Metal1 Material click on “+” icon and select Update Related Record.

- Label : For Metal1
- API Name : For_Metal1
- How to Find Records to Update and Set Their Value : Select Use the fabrication record that triggered the flow
- Set Filter Conditions : None—Always Update Record
- Set Field Values for the Fabrication Record

Field : Final_price__c

- For Value click on New resource
- In Resource Type : Select Formula
- API Name : Metal1_Cost

Data Type : Number

Decimal Places : 2

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

- Click Done

16. Under Steel Material click on “+” icon and select Update Related Record.

- Label : For Steel
- API Name : For_Steel
- How to Find Records to Update and Set Their Value : Select Use the fabrication record that triggered the flow
- Set Filter Conditions : None—Always Update Record
- Set Field Values for the Fabrication Record

Field : Final_price__c

- For Value click on New resource
- In Resource Type : Select Formula
- API Name : SteelCost

Data Type : Number

Decimal Places : 2

Formula : $\{!\$Record.Amount_c\} * 1.5$

- Click Done

17. The flow for rods has been completed in shed-work. Now, lets write the flow for sheet of the shed based on material type.

18. Click the ‘+’ Icon which is between decision and Email alert then select select Decision

19. For New Decision :

- Label : Sheet Material
- Api Name : Sheet_Material

For Outcome Details :

- Label : Metal2 Material
- Outcome API Name : Metal2_Material
- Condition Requirements to Execute Outcome : Condition Requirements to Execute Outcome
- Resource : {!\$Record.Material_Type__c}
- Operator : Equals
- Value : Metals

In the Outcome Order click '+' Icon and create another four outcomes for Rubber, Plastic(for each outcome keep the respective value)

- For Rubber >> Value : Rubber
- For Plastic >> Value : Plastic

20. Under Iron Material click on "+" icon and select Update Related Record.

- Label : For Metal2
- API Name : For_Metal2
- How to Find Records to Update and Set Their Value : Select Use the Shed Work record that triggered the flow
- Set Filter Conditions : None—Always Update Record
- Set Field Values for the Fabrication Record

Field : Final_price__c

- For Value click on New resource
- In Resource Type : Select Formula
- API Name : Metal2Cost

Data Type : Number

Decimal Places : 2

Formula : {!\$Record.Amount__c} * 1.8

- Click Done

21. Click Done

22. Under Rubber Material click on "+" icon and select Update Related Record.

- Label : For Rubber
- API Name : For_Rubber
- How to Find Records to Update and Set Their Value : Select Use the Shed Work record that triggered the flow
- Set Filter Conditions : None—Always Update Record
- Set Field Values for the Fabrication Record

Field : Final_price__c

- For Value click on New resource
- In Resource Type : Select Formula
- API Name : Rubber_Cost

Data Type : Number

Decimal Places : 2

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

- Click Done

23. Under Plastic Material click on “+” icon and select Update Related Record.

- Label : For Plastic
- API Name : For_Plastic
- How to Find Records to Update and Set Their Value : Select Use the Shed Work record that triggered the flow
- Set Filter Conditions : None—Always Update Record
- Set Field Values for the Fabrication Record

Field : Final_price__c

- For Value click on New resource
- In Resource Type : Select Formula
- API Name : PlasticCost

Data Type : Number

Decimal Places : 2

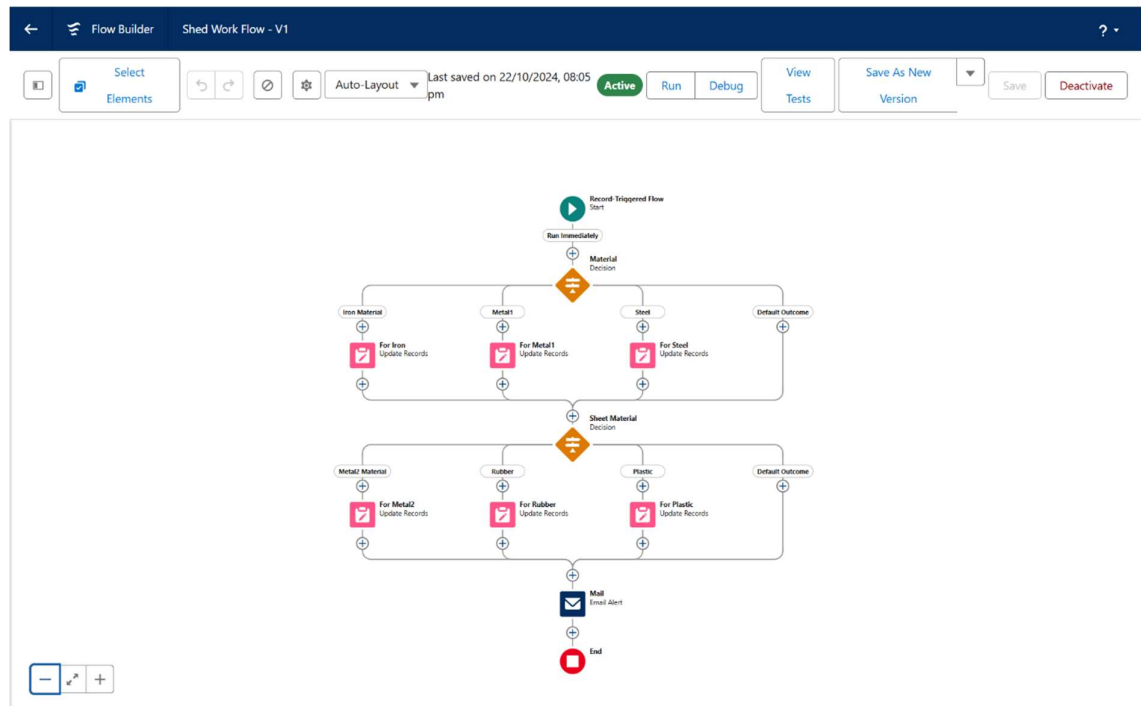
Formula : $\{!\$Record.Amount_c\} * 1.5$

- Click Done

24. Click on Save

- Flow Label : Shed Work Flow
- Flow API Name : Shed_Work_Flow
- Click Save and then Activate

25. The Shed Work Flow would look like this:



Create Flow to calculate Final Price on Pipe Lining Object based on Material Type

26. Go to setup >> type Flow in quick find box >> Click on the Flow and Select the New Flow.
27. Select the record Triggered flow. Click on create.
28. Under Object select "Pipe Lining". Click on A record is created or updated.
29. Set Entry Conditions : None
30. Select Actions and Related Records
31. Under record trigger flow click on "+" icon and select Send Email Alert.
32. In New Action Select Pipe Lining Template.
33. Label : Mail
34. API Name : Mail
35. Record ID : {!\$Record.Id}
36. Click Done.
37. Under record trigger flow click on "+" icon and select Decision

For New Decision :

- Label : Material
- Api Name : Material

For Outcome Details :

- Label : Iron Material
- Outcome API Name : Iron_Material
- Condition Requirements to Execute Outcome : Condition Requirements to Execute Outcome
- Resource : {!\$Record.Material_Type__c}
- Operator : Equals
- Value : Iron

In the Outcome Order click '+' Icon and create another four outcomes for Aluminum, Metal (for each outcome keep the respective value)

- For Aluminum >> Value : Aluminum
 - For Metal >> Value : Metal
38. Under Iron click on "+" icon and select Update Related Record.
 - Label : For Iron
 - API Name : For_Iron

- How to Find Records to Update and Set Their Value : Select Use the Pipe Lining record that triggered the flow
- Set Filter Conditions : None—Always Update Record
- Set Field Values for the Fabrication Record

Field : Final_price__c

- For Value click on New resource
- In Resource Type : Select Formula
- API Name : IronCost

Data Type : Number

Decimal Places : 2

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

- Click Done

39. Click Done

40. Under Aluminum click on “+” icon and select Update Related Record.

- Label : For Aluminum
- API Name : For_Aluminum
- How to Find Records to Update and Set Their Value : Select Use the Pipe Lining record that triggered the flow
- Set Filter Conditions : None—Always Update Record
- Set Field Values for the Fabrication Record

Field : Final_price__c

- For Value click on New resource
- In Resource Type : Select Formula
- API Name : Aluminum_Cost

Data Type : Number

Decimal Places : 2

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

- Click Done.

41. Under Steel Material click on “+” icon and select Update Related Record.

- Label : For Metal

- API Name : For_Metal
- How to Find Records to Update and Set Their Value : Select Use the Pipe Lining record that triggered the flow
- Set Filter Conditions : None—Always Update Record
- Set Field Values for the Fabrication Record

Field : Final_price

- For Value click on New resource
- In Resource Type : Select Formula
- API Name : MetalCost

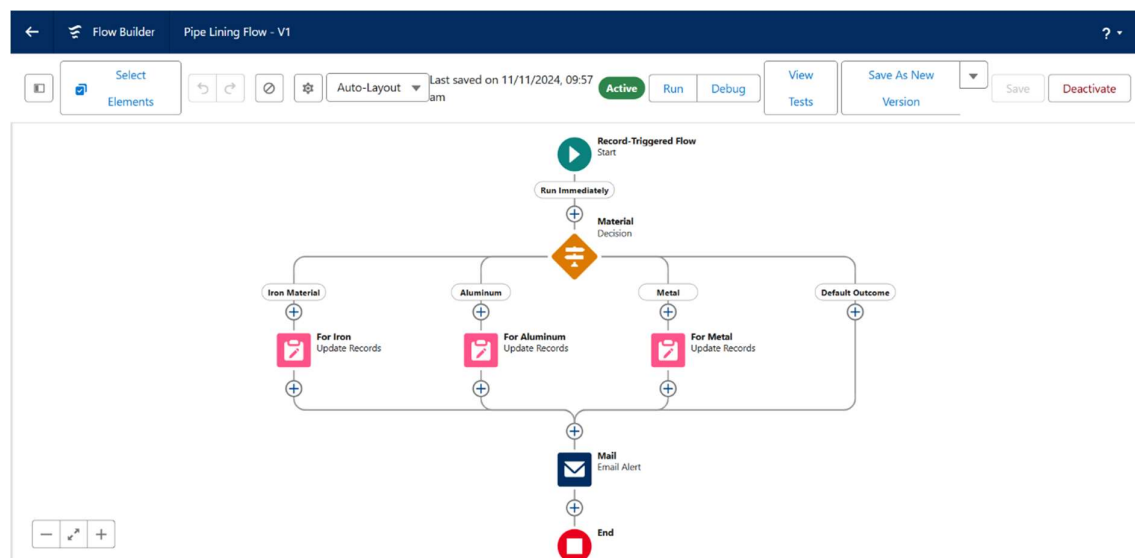
Data Type : Number

Decimal Places : 2

Formula : $\{!\$Record.Amount_c\} * 1.5$

- Click Done
- 42. Click on Save
- Flow Label : Pipe Lining Flow
- Flow API Name : Pipe_Lining_Flow
- Click Save

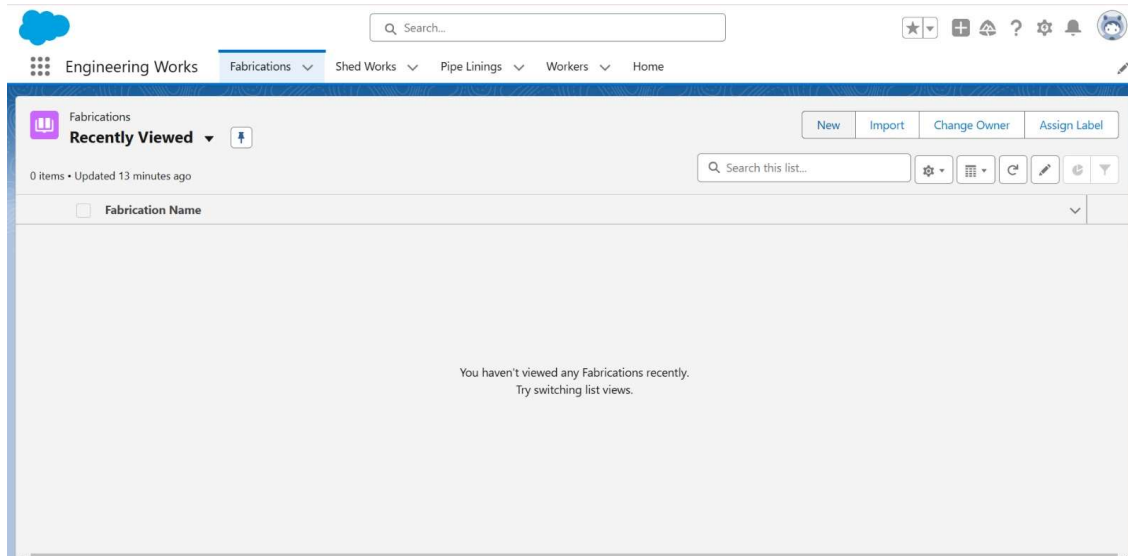
43. The Flow will be like this :



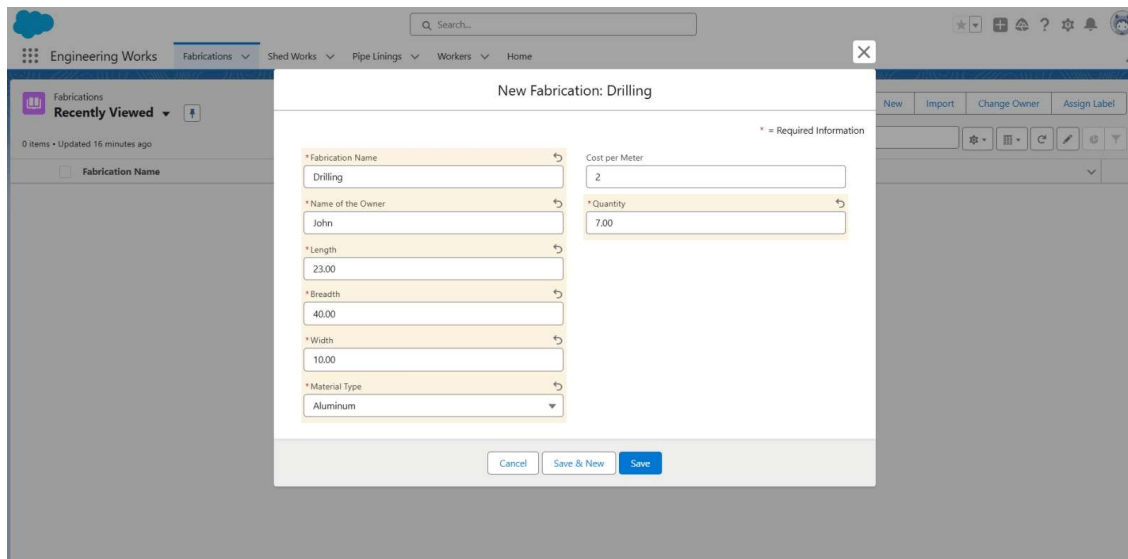
5.FINAL OUTPUT

This Engineering Works Project automates the calculation of area whenever a record is created or updated, utilizing parameters such as length, breadth, and width, as well as quantity and cost per meter. The final amount is then determined based on the area and material type.

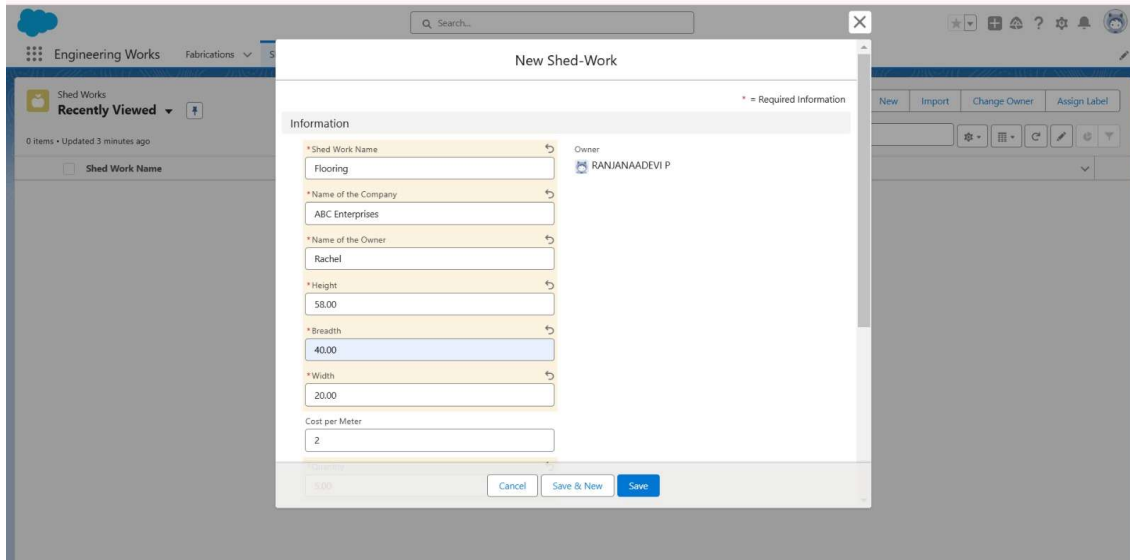
1.Add New fabrication



2.New fabrication:Drilling



3.New Shed-Work



New Shed-Work

* = Required Information

Information

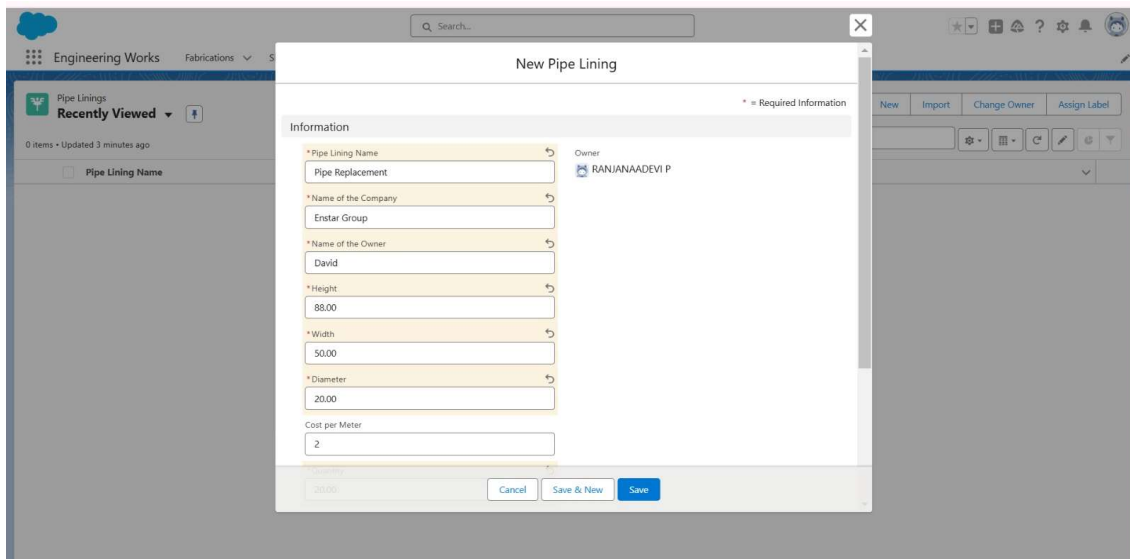
- *Shed Work Name: Flooring
- *Name of the Company: ABC Enterprises
- *Name of the Owner: Rachel
- *Height: 58.00
- *Breadth: 40.00
- *Width: 20.00
- Cost per Meter: 2

Owner: RANJANA ADEVI P

Quantity: 1.00

Buttons: Cancel, Save & New, Save

4.New Pipe Lining



New Pipe Lining

* = Required Information

Information

- *Pipe Lining Name: Pipe Replacement
- *Name of the Company: Erstar Group
- *Name of the Owner: David
- *Height: 88.00
- *Width: 50.00
- *Diameter: 20.00
- Cost per Meter: 2

Owner: RANJANA ADEVI P

Quantity: 10.00

Buttons: Cancel, Save & New, Save

CONCLUSION

Summary of Achievements:

This Salesforce project successfully streamlined the management of client and project information within the engineering domain. Key accomplishments include:

- **Centralized Client and Project Data:** All client details, worker information, and project-specific data are now stored and easily accessible in one location.
- **Automated Pricing Calculations:** The application accurately calculates costs based on material requirements and measurements, reducing manual errors and saving time.
- **Enhanced Workflow Management:** The automated processes for fabrication, shed construction, and pipe lining allow for efficient tracking and management of tasks like drilling, welding, and cutting.
- **Improved Reporting and Decision-Making:** Custom reports and dashboards provide real-time insights into project progress, budget allocations, and resource usage, supporting better decision-making.
- **Secure and Scalable Solution:** The role-based security model and integration capabilities ensure the system is both secure and scalable, ready to handle additional data as the business grows.

These achievements align with the project's objectives, delivering a robust solution for managing engineering projects and enhancing operational efficiency.