



ANGEL



**COLLEGE OF ENGINEERING
AND TECHNOLOGY**

TIRUPUR – 641665

(AN ISO 9001:2015 CERTIFIED INSTITUTION)

BONAFIDE CERTIFICATE

Register Number.....

This is to certify that the bonafide record work done by

..... of **B.E. Computer Science**

And Engineering branch for the **07** semester during the academic year **2024-2025** in the

SB8067- Salesforce Developer Laboratory.

Signature of

Faculty in-charge

Signature of

Head of the Department

Submitted for the University Practical Examination held on

INTERNAL EXAMINER

EXTERNAL EXAMINER

A CRM APPLICATION TO ENGINEERING WORKS

College Name : Angel college of Engineering and Technology

College code:7103

Department : Computer Science and Engineering

NM Project : A CRM application to engineering
works

Group project

TEAM ID : NM2024TMID03533

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Abstract

An application is required to efficiently manage client information for engineering projects, encompassing details such as company information, owner details, contact information, worker details, and their respective requirements for materials, including measurements. Additionally, the application should automatically calculate the price based on the specified materials and measurements. The available works in Engineering Works comprise Fabrication, Shed Construction, and Pipe Lining. Within the Fabrication work, various processes are involved, namely Drilling, Welding, Cutting, and Folding.

The GMS provides modules for various aspects of garage management, including:

1. Customer Management: Maintains a database of customer profiles, service history, and contact details, enabling personalized service and efficient customer communication.
2. Appointment Scheduling: Allows customers to book service appointments online or via phone, with automatic scheduling to optimize garage capacity and reduce wait times.
3. Vehicle Management: Keeps track of vehicle information, maintenance history, and upcoming service reminders, ensuring that each vehicle receives timely and appropriate care.
4. Inventory Management: Manages spare parts and consumables inventory, monitors stock levels, generates purchase orders, and provides alerts for low-stock items to avoid service delays.
5. Job Card and Work Order Management: Generates job cards for each service request, assigns tasks to technicians, and tracks job progress in real-time, improving accountability and workflow management.

6. Billing and Invoicing: Automates the generation of detailed invoices based on services rendered and parts used, with options for discounts, taxes, and multiple payment methods.
7. Reporting and Analytics: Provides detailed reports on key performance indicators (KPIs) such as revenue, customer retention, technician productivity, and inventory turnover, enabling data-driven decision-making.
8. Notifications and Alerts: Sends automated reminders and alerts to customers for service due dates, appointment confirmations, and promotional offers, enhancing customer engagement.
9. Security and User Access Control: Ensures secure data storage with role-based access control, protecting sensitive information and preventing unauthorized access.

The system is designed to be user-friendly, with an intuitive interface accessible via desktop and mobile devices. It supports integration with third-party systems, such as accounting software and payment gateways, to provide a seamless experience for garage owners and customers.

Key Benefits:

Improved Operational Efficiency: Automates routine tasks, reducing manual errors and freeing up staff to focus on higher-value activities.

Enhanced Customer Experience: Provides a convenient platform for customers to book appointments, track service status, and receive timely updates.

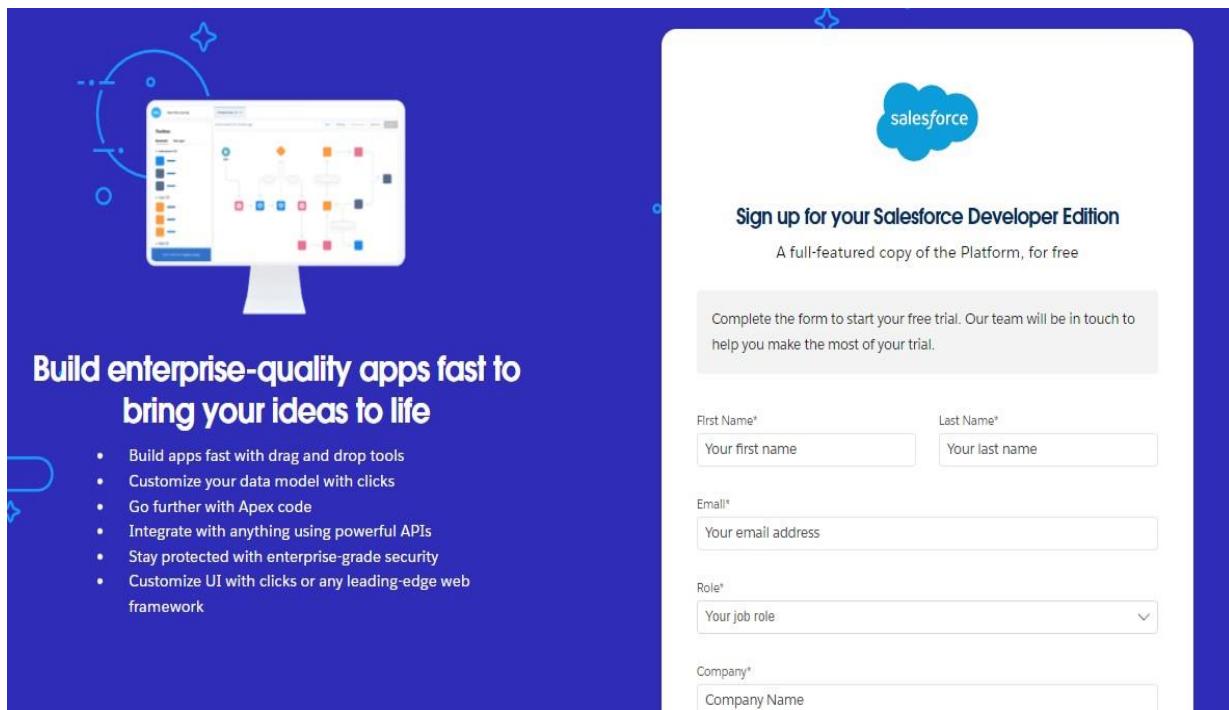
Cost Savings: Optimizes inventory management and job scheduling, reducing waste and maximizing resource utilization.

Scalability: Suitable for small, independent garages as well as larger, multi-location service centers.

The A CRM application to engineering works serves as a comprehensive solution to modernize garage operations, helping businesses stay competitive in a fast-evolving automotive service industry.

SALESFORCE

Creating developer account:



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

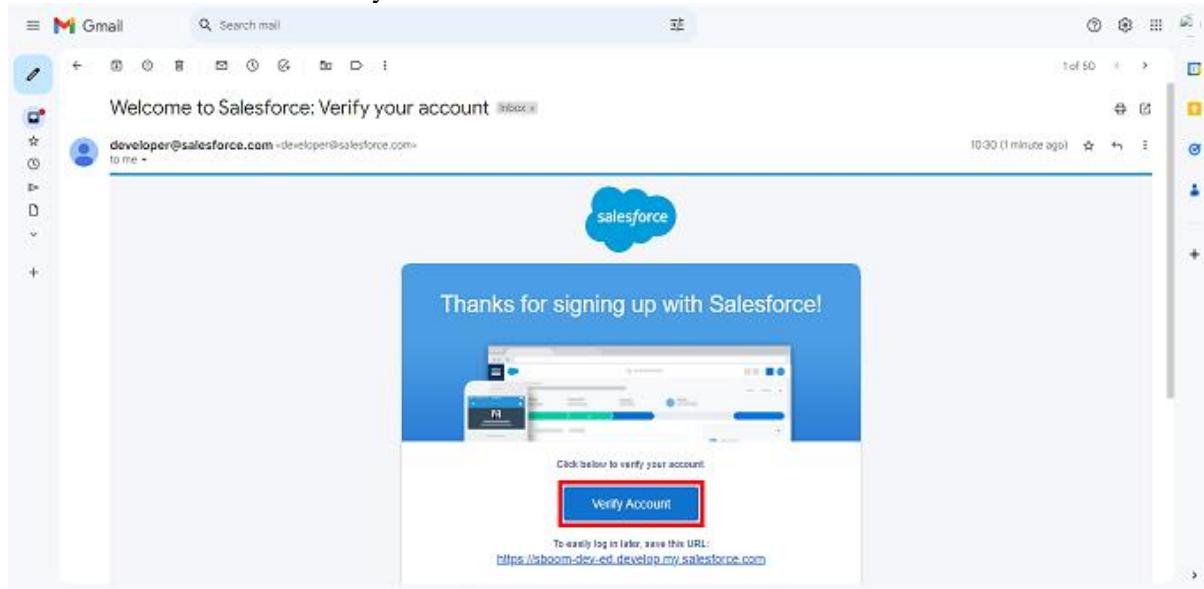
This need not be an actual email id, you can give anything in the format :lusername@organization.com
Click on sign me up after filling these.

Account Activation

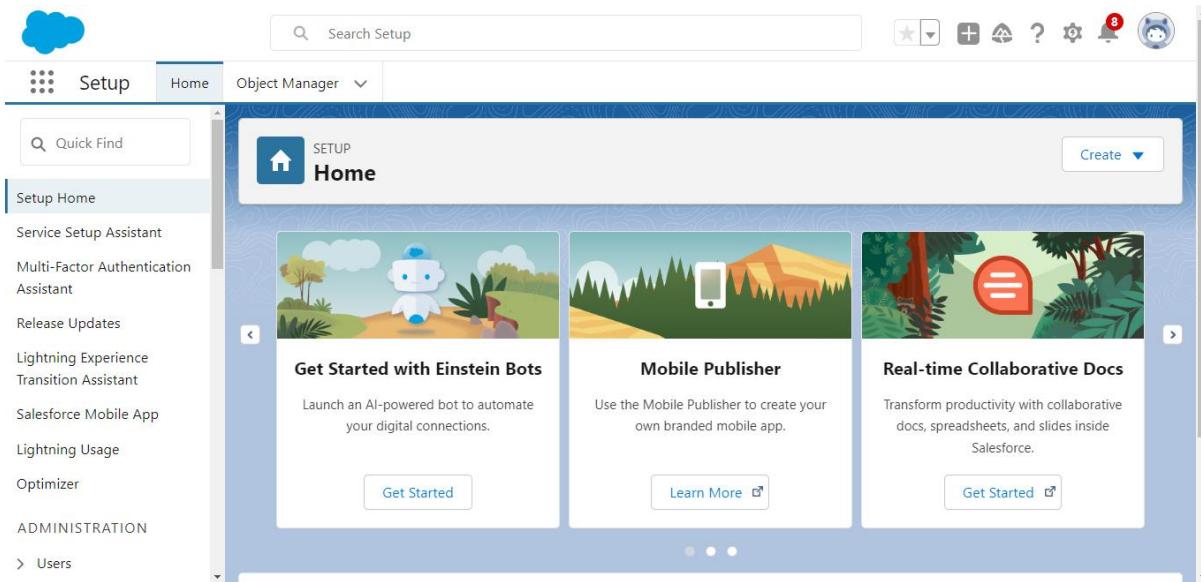
1. Go to the inbox of the email that you used while signing up. Click on the verify account to activate your account. The email may take 5-10mins.
2. Click on Verify Account
3. Give a password and answer a security question and click on change password.
4. Then you will redirect to your salesforce setup page

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.

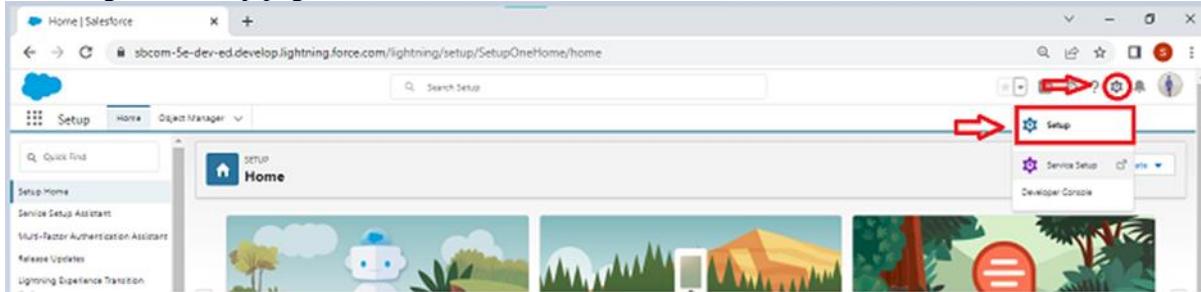
A screenshot of a "Change Your Password" form. It asks for a new password for "lead@sb.oom" and specifies that it should include at least 8 characters, 1 letter, and 1 number. The form includes fields for "New Password" and "Confirm New Password", both of which are highlighted with a red box. It also includes a "Security Question" field set to "In what city were you born?" and an "Answer" field containing "asdfghjkl". A large blue "Change Password" button is at the bottom. The entire form area is enclosed in a red border.

1. Click on Verify Account
2. Give a password and answer a security question and click on change password.
3. Give a password and answer a security question and click on change password.
4. Then you will redirect to your salesforce setup page.



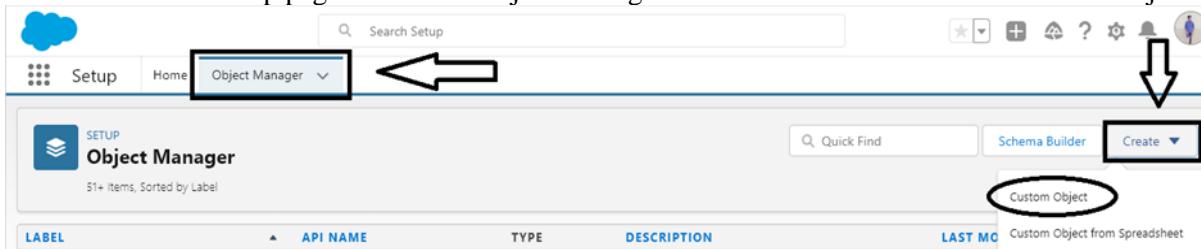
Milestone 2- Object :

To Navigate to Setup page:



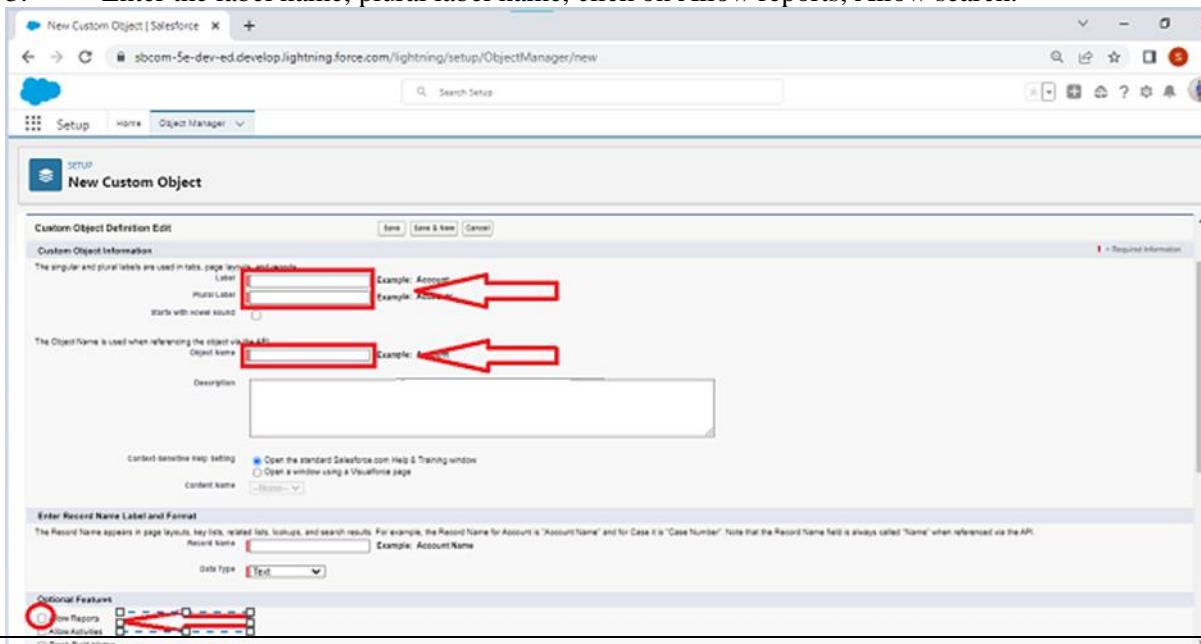
To create an object:

- From the setup page ? Click on Object Manager ? Click on Create ? Click on Custom Object.



- On Custom object defining page:

- 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.

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.

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.

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

- Click on Allow reports and Track Field History,Allow Activities
- Allow search >> Save.

Milestone 3- 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.

Milestone 4 : The Lightning App

Create a Lightning App

To create a lightning app page:

- Go to setup page >> search “app manager” in quick find >> select “app manager” >> click on New lightning App.

The screenshot shows the Salesforce App Manager interface. At the top, there are tabs for 'Setup', 'Home', and 'Object Manager'. Below these, there are sections for 'Cloud Apps' and 'Salesforce'. A red box highlights the 'Cloud Apps' section. In the center, there's a heading 'Lightning Experience App Manager' with a sub-section 'Clone Apps(Beta)'. To the right, there are two buttons: 'New Lightning App' (highlighted with a red box) and 'New Connected App'. Below the heading, there's a note about cloning apps. At the bottom, there's a table listing various apps with columns for 'App Name', 'Developer Name', 'Description', 'Last Modified', 'App Type', and 'VLR'. A red box highlights the 'Clone Apps(Beta)' link.

- 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.

- Then click Next >> (App option page)Set Navigation Style as Standard Navigation >> Next.

The screenshot shows the 'App Options' page. At the top, it says 'New Lightning App'. Below that, there's a section titled 'App Options' with a progress bar showing step 1 of 5. The first section is 'Navigation and Form Factor' with 'Navigation Style' set to 'Standard navigation'. The second section is 'Setup and Personalization' with 'Setup Experience' set to 'Setup (full set of Setup options)'. There are also 'App Personalization Settings' with checkboxes for 'Disable end user personalization of nav items in this app' and 'Disable temporary tabs for items outside of this app'. At the bottom, there are tabs for 'Back', 'Next', and 'Cancel'.

- (Utility Items) keep it as default >> Next.

- To Add Navigation Items:

Available Items

Selected Items

- Accounts
- Alert Settings
- All Sites
- Alternative Payment Methods
- Analytics
- App Launcher
- Appointment Categories
- Appointment Invitations

- Home
- Fabrications
- Shed Works
- Pipe Linings

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:

New Lightning App

User Profiles

Choose the user profiles that can access this app.

Available Profiles

Selected Profiles

System administrator

Save & Finish

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

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.

Setup Home Object Manager

Object Manager

LABEL	API NAME	TYPE	DESCRIPTION	LAST MODIFIED	DEPLOYED
Fabrication	Fabrication_c	Custom Object	Regrading Fabrication Work	08/02/2024	✓

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

Fabrication

Fields & Relationships

17 Items, Sorted by Field Label

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(15, 3)		
Created By	CreatedById	Lookup(User)		
cutting Type	cutting_Type_c	Picklist		
Email	Email_c	Email		
Fabrication Name	Name	Text(80)		✓

3. Select Data Type as a “Text”

Fabrication

Fields & Relationships

- Date
- Date/Time
- Email
- Geolocation
- Number
- Percent
- Phone
- Picklist
- Picklist (Multi-Select)
- Text
- Text Area
- Text Area (Long)
- Text Area (Rich)
- Text (Encrypted) i
- Time
- URL

Allows users to enter any combination of letters and numbers.

4. Click on next

Fabrication

Edit Fabrication Custom Field
Name of the Owner

Custom Field Definition Edit

Field Information

Field Label	<input type="text" value="Name of the Owner"/>	Data Type	Text
Field Name	<input type="text" value="Name_of_the_Owner"/>		
Description	<input type="text"/>		
Help Text	<input type="text"/>		
Data Owner	User	Field Usage	--None--
Data Sensitivity Level	--None--		
Compliance Categorization	<input type="checkbox"/> Available PII HIPAA GDPR PCI		
	<input type="checkbox"/> Chosen		

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:

5. Go to setup >> click on Object Manager >> type object name(Fabrication) in search bar >> click on the object.
6. Now click on “Fields & Relationships” >> New
7. Select Data type as a “Number” and Click on Next
8. 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:

9. Go to setup >> click on Object Manager >> type object name(Fabrication) in search bar >> click on the object.
10. Now click on “Fields & Relationships” >> New
11. Select Data type as a “Number” and Click on Next
12. 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.

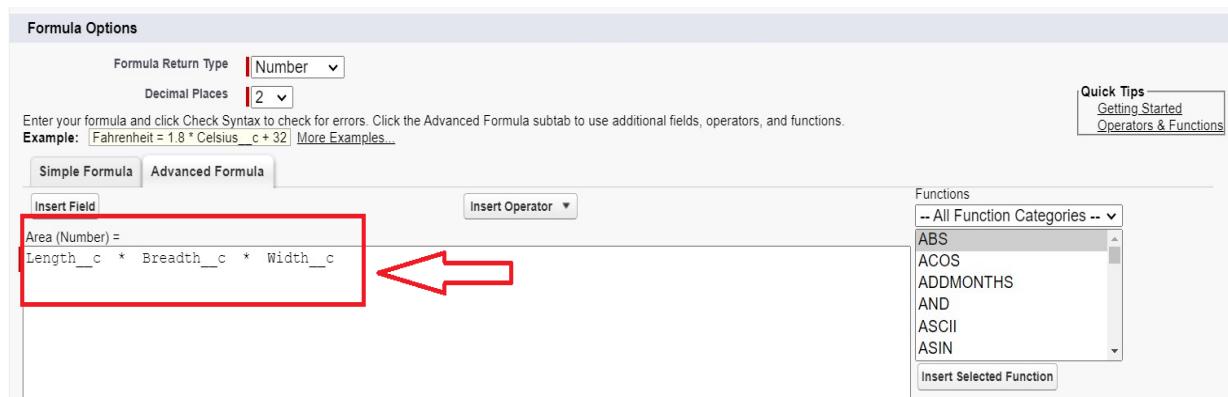
To create another fields in an object:

13. Go to setup >> click on Object Manager >> type object name(Fabrication) in search bar >> click on the object.
14. Now click on “Fields & Relationships” >> New
15. Select Data type as a “Number” and Click on Next
16. 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:

17. Go to setup >> click on Object Manager >> type object name(Fabrication) in search bar >> click on the object.
18. Now click on “Fields & Relationships” >> New
19. Select Data type as a “Formula” and Click on Next
20. 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:

21. Go to setup >> click on Object Manager >> type object name(Fabrication) in search bar >> click on the object.
22. Now click on “Fields & Relationships” >> New
23. Select Data type as a “Number” and Click on Next
24. 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:

25. Go to setup >> click on Object Manager >> type object name(Fabrication) in search bar >> click on the object.
26. Now click on “Fields & Relationships” >> New
27. Select Data type as a “Number” and Click on Next
28. 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:

29. Go to setup >> click on Object Manager >> type object name(Fabrication) in search bar >> click on the object.
30. Now click on “Fields & Relationships” >> New
31. Select Data type as a “Formula” and Click on Next
32. 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:

33. Go to setup >> click on Object Manager >> type object name(Fabrication) in search bar >> click on the object.
34. Now click on “Fields & Relationships” >> New
35. Select Data type as a “Picklist” and Click on Next
36. 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:

37. Go to setup >> click on Object Manager >> type object name(Fabrication) in search bar >> click on the object.
38. Now click on “Fields & Relationships” >> New
39. Select Data type as a “Currency” and Click on Next
40. 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:

41. Go to setup >> click on Object Manager >> type object name(Fabrication) in search bar >> click on the object.
42. Now click on “Fields & Relationships” >> New
43. Select Data type as a “Email” and Click on Next
44. Fill the Above as following:
 - Field Label: Email
 - Field Name : Email

- Click on Next >> Next >> Save.

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.

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:

5. Go to setup >> click on Object Manager >> type object name(Shed-Work) in search bar >> click on the object.
6. Now click on “Fields & Relationships” >> New
7. Select Data type as a “Number” and Click on Next
8. Fill the Above as following:
 - Field Label: 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:

9. Go to setup >> click on Object Manager >> type object name(Shed-Work) in search bar >> click on the object.
10. Now click on “Fields & Relationships” >> New
11. Select Data type as a “Number” and Click on Next
12. 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:

13. Go to setup >> click on Object Manager >> type object name(Shed-Work) in search bar >> click on the object.
14. Now click on “Fields & Relationships” >> New
15. Select Data type as a “Number” and Click on Next
16. 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:

17. Go to setup >>click on Object Manager >> type object name(Shed-Work) in search bar >> click on the object.
18. Now click on “Fields & Relationships” >> New
19. Select Data type as a “Formula” and Click on Next
20. 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:

21. Go to setup >> click on Object Manager >> type object name(Shed-Work) in search bar >> click on the object.
22. Now click on “Fields & Relationships” >> New
23. Select Data type as a “Formula” and Click on Next
24. 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:

25. Go to setup >> click on Object Manager >> type object name(Shed-Work) in search bar >> click on the object.
26. Now click on “Fields & Relationships” >> New
27. Select Data type as a “Number” and Click on Next
28. 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:

29. Go to setup >> click on Object Manager >> type object name(Shed-Work) in search bar >> click on the object.
30. Now click on “Fields & Relationships” >> New
31. Select Data type as a “Number” and Click on Next
32. 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:

33. Go to setup >> click on Object Manager >> type object name(Shed-Work) in search bar >> click on the object.
34. Now click on “Fields & Relationships” >> New
35. Select Data type as a “Number” and Click on Next
36. Fill the Above as following:
 - Field Label: 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:

37. Go to setup >> click on Object Manager >> type object name(Shed-Work) in search bar >> click on the object.
38. Now click on “Fields & Relationships” >> New
39. Select Data type as a “Formula” and Click on Next
40. 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:

41. Go to setup >> click on Object Manager >> type object name(Shed-Work) in search bar >> click on the object.
42. Now click on “Fields & Relationships” >> New
43. Select Data type as a “Formula” and Click on Next
44. Fill the Above as following:
 - Field Label: 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:

45. Go to setup >> click on Object Manager >> type object name(Shed-Work) in search bar >> click on the object.
46. Now click on “Fields & Relationships” >> New
47. Select Data type as a “Picklist” and Click on Next
48. 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

Metal

Steel

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

To create another fields in an object:

49. Go to setup >> click on Object Manager >> type object name(Shed-Work) in search bar >> click on the object.
50. Now click on “Fields & Relationships” >> New

51. Select Data type as a “Picklist” and Click on Next
52. 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:

53. Go to setup >> click on Object Manager >> type object name(Shed-Work) in search bar >> click on the object.
54. Now click on “Fields & Relationships” >> New
55. Select Data type as a “Currency” and Click on Next
56. 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:

57. Go to setup >> click on Object Manager >> type object name(Shed-Work) in search bar >> click on the object.
58. Now click on “Fields & Relationships” >> New
59. Select Data type as a “Email” and Click on Next
60. Fill the Above as following:
 - Field Label: Email
 - Field Name : Email
 - Click on Next >> Next >> Save.

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:
 - 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:

5. Go to setup >> click on Object Manager >> type object name(Pipe Lining) in search bar >> click on the object.
6. Now click on “Fields & Relationships” >> New
7. Select Data type as a “Number” and Click on Next

8. Fill the Above as following:
 - Field Label: 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:

9. Go to setup >> click on Object Manager >> type object name(Pipe Lining) in search bar >> click on the object.
10. Now click on “Fields & Relationships” >> New
11. Select Data type as a “Number” and Click on Next
12. 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:

13. Go to setup >> click on Object Manager >> type object name(Pipe Lining) in search bar >> click on the object.
14. Now click on “Fields & Relationships” >> New
15. Select Data type as a “Number” and Click on Next
16. 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:

17. Go to setup >> click on Object Manager >> type object name(Pipe Lining) in search bar >> click on the object.
18. Now click on “Fields & Relationships” >> New
19. Select Data type as a “Formula” and Click on Next
20. Fill the Above as following:
 - Field Label: Area
 - Field Name : Area
 - Formula Return Type : Select Number
 - Enter Formula : $\text{PI()} * \text{Height_c} * \text{Diameter_c}$ (Insert this fields using “Insert Field” Option)

To create another fields in an object:

21. Go to setup >> click on Object Manager >> type object name(Pipe Lining) in search bar >> click on the object.
22. Now click on “Fields & Relationships” >> New
23. Select Data type as a “Number” and Click on Next
24. 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:

25. Go to setup >> click on Object Manager >> type object name(Pipe Lining) in search bar >> click on the object.
26. Now click on “Fields & Relationships” >> New
27. Select Data type as a “Number” and Click on Next
28. 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:

29. Go to setup >> click on Object Manager >> type object name(Pipe Lining) in search bar >> click on the object.
30. Now click on “Fields & Relationships” >> New
31. Select Data type as a “Formula” and Click on Next
32. 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:

33. Go to setup >> click on Object Manager >> type object name(Pipe Lining) in search bar >> click on the object.
34. Now click on “Fields & Relationships” >> New
35. Select Data type as a “Picklist” and Click on Next
36. 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

Metal

Aluminum

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

To create another fields in an object:

37. Go to setup >> click on Object Manager >> type object name(Pipe Lining) in search bar >> click on the object.
38. Now click on “Fields & Relationships” >> New
39. Select Data type as a “Currency” and Click on Next
40. 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:

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

42. Now click on “Fields & Relationships” >> New
43. Select Data type as a “Email” and Click on Next
44. Fill the Above as following:
 - Field Label: Email
 - Field Name : Email
 - Click on Next >> Next >> Save

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.

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:
 - Field Label: 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:

5. Go to setup >> click on Object Manager >> type object name(Worker) in search bar >> click on the object.
6. Now click on “Fields & Relationships” >> New
7. Select Data type as a “Picklist” and Click on Next
8. Fill the Above as following:
 - Field Label: 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:

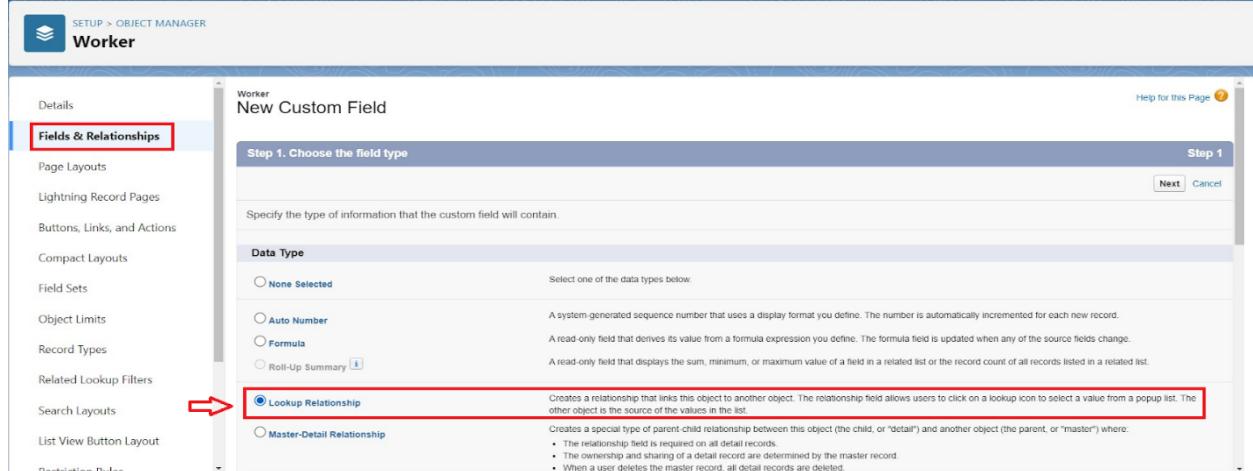
9. Go to setup >> click on Object Manager >> type object name(Worker) in search bar >> click on the object.
10. Now click on “Fields & Relationships” >> New
11. Select Data type as a “Currency” and Click on Next
12. Fill the Above as following:
 - Field Label: Salary
 - Field Name : Salary
 - Length : 10

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

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.

Milestone 6: Creation of Page Layouts

Here we have to create Four Page Layouts (For Drilling, For Welding, For Cutting, For Folding)

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.

SETUP > OBJECT MANAGER
Fabrication

Page Layouts
5 items, Sorted by Page Layout Name

PAGE LAYOUT NAME	CREATED BY	MODIFIED BY
Cutting PL	Pala Bhargavi, 05/02/2024, 4:30 pm	Pala Bhargavi, 12/02/2024, 3:08 pm
Drilling PL	Pala Bhargavi, 05/02/2024, 4:24 pm	Pala Bhargavi, 12/02/2024, 3:08 pm
Fabrication Layout	Pala Bhargavi, 05/02/2024, 11:45 am	Pala Bhargavi, 12/02/2024, 3:08 pm

3. Enter details as
 - Page Layout Name : Drilling Page Layout
 - Click on Save

SETUP > OBJECT MANAGER
Fabrication

Create New Page Layout

As an option, you may select an existing layout to clone. If you create a page layout, users can use it.

Existing Page Layout	--None--
Page Layout Name	Drilling PL

Save Cancel

4. Drag and Arrange the field as shown below

SETUP > OBJECT MANAGER
Fabrication

Edit Page Layout

Save Quick Save Preview As... Cancel Undo Redo Layout Properties

Fields

- Buttons
- Quick Actions
- Mobile & Lightning Actions
- Expanded Lookups
- Related Lists
- Parent Chunks

Quick Find Field Name

Section	Breadth	Email	Material Type	price
Blank Space	Cost per meter	Fabrication Name	Name of Company	Quantity
Amount	Created By	Last Modified By	Name of the Owner	Record Type
Area	Cutting Type	Length	Owner	Width

Edit Delete Clone Change Owner Change Record Type Printable View Sharing Sharing Hierarchy

Company Details

Name of Company	Sample Text	Name of the Owner	Sample Text
Email	sarah.sample@company.com		

Fields (Header not visible)

Fabrication Name	Sample Text	Area	609.57
Length	89.11	Cost per meter	9.575
Breadth	989.37	Quantity	95.203
Width	133.28	Amount	₹123.45
Material Type	Sample Text		

Final Amount

price	₹123.45
-------	---------

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

Fields

Section	Breadth	Email	Material Type	price
+ Section	Breadth	Email	Material Type	price
+ Blank Space	Cost per meter	Fabrication Name	Name of Company	Quantity
	Amount	Created By	Last Modified By	Name of the Owner
	Area	cutting Type	Length	Record Type

Company Details

Name of Company	Sample Text	Name of the Owner	Sample Text
Email	sarah.sample@company.com		

Fields (Header not visible)

* ● Fabrication Name	Sample Text	* ● Quantity	38.475
* ● Length	2.82	🔒 Area	989.98
* ● Breadth	809.95	Cost per meter	55.887
* ● Width	470.34	🔒 Amount	₹123.45
* Material Type	Sample Text		

Final Amount

price	₹123.45
-------	---------

5. Click 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

Fields

Section	Breadth	Email	Material Type	price
+ Section	Breadth	Email	Material Type	price
+ Blank Space	Cost per meter	Fabrication Name	Name of Company	Quantity
	Amount	Created By	Last Modified By	Name of the Owner
	Area	cutting Type	Length	Record Type

Company Details

Name of Company	Sample Text	Name of the Owner	Sample Text
Email	sarah.sample@company.com		

Fields (Header not visible)

* ● Fabrication Name	Sample Text	cutting Type	Sample Text
* ● Length	740.02	* ● Quantity	71,255
* ● Breadth	971.64	🔒 Area	443.62
* ● Width	903.50	Cost per meter	21.018
* Material Type	Sample Text	🔒 Amount	₹123.45

Final Amount

price	₹123.45
-------	---------

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

The screenshot shows the Salesforce Page Layout editor. At the top, there are buttons for Save, Quick Save, Preview As..., Cancel, Undo, Redo, and Layout Properties. On the left, a sidebar titled 'Fields' lists various components like Buttons, Quick Actions, Mobile & Lightning Actions, Expanded Lookups, Related Lists, and Report Charts. The main area displays a grid of fields:

	Breadth	Email	Material Type	price
Section	Cost per meter	Fabrication Name	Name of Company	Quantity
Blank Space				
Amount	Created By	Last Modified By	Name of the Owner	Record Type
Area	cutting Type	Length	Owner	Width

Below the grid are buttons for Edit, Delete, Clone, Change Owner, Change Record Type, Printable View, Sharing, and Sharing Hierarchy. A red box highlights the 'Company Details' section, which contains fields for Name of Company (Sample Text), Email (sarah.sample@company.com), and Name of the Owner (Sample Text). Another red box highlights a group of fields under 'Fields (Header not visible)', including Fabrication Name (Sample Text), Length (42.47), Breadth (597.13), Width (776.42), Material Type (Sample Text), Quantity (18,218), Area (623.14), Cost per meter (14,790), and Amount (₹123.45). A third red box highlights the 'Final Amount' section, which shows price (₹123.45).

5.Click Save

Milestone 7: Creation of Record Types

For the Fabrication Object we have to create 4 Record Types (Drilling, Welding, Cutting, Folding)

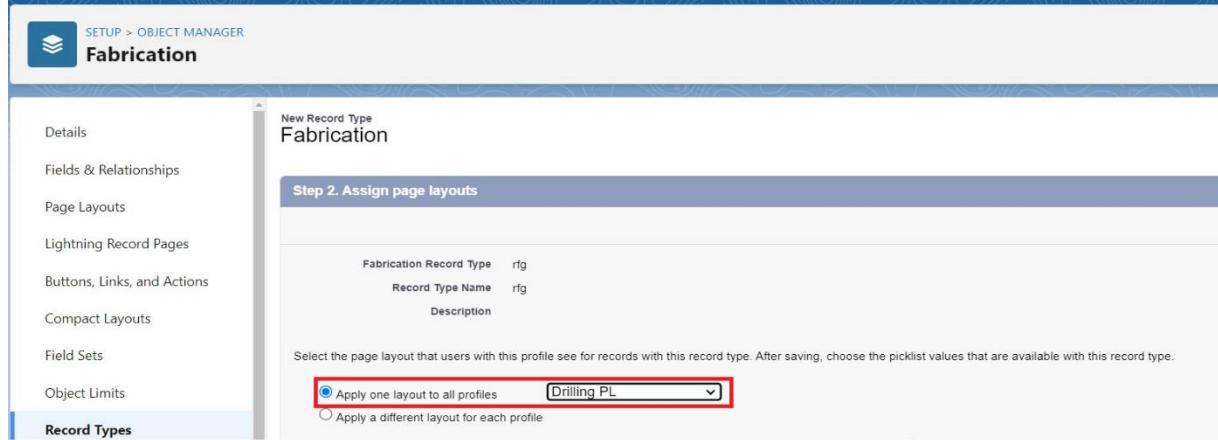
To create a Record Types in Fabrication Object

1. Go to the setup page >> click on object manager >> From drop down click edit for Fabrication object.
2. Click on the Record Types >> click New.

The screenshot shows the Salesforce Setup - Object Manager for the 'Fabrication' object. The left sidebar includes links for Setup, Home, Object Manager, and specific sections like Fields & Relationships, Page Layouts, Lightning Record Pages, Buttons, Links, and Actions, Compact Layouts, Field Sets, and Object Limits. A red box highlights the 'Record Types' link in the sidebar. The main area displays a list of 'Record Types' with a red arrow pointing to the 'New' button at the top right. The list shows four items: Cutting, Drilling, Folding, and Welding, each with a description, active status, and modified by user (Paula Bhargavi) and timestamp (06/02/2024, 10:38 am or 09/02/2024, 10:40 am).

3. Enter the details : For Record Types
 - Existing Record Types : Master
 - Record Type Label : Drilling
 - Record Type Name : Drilling
 - Active : Tick checkbox

4. Click on Next
5. In Assign Page Layout
 - Apply one layout to all profiles : Select Drilling Page Layout



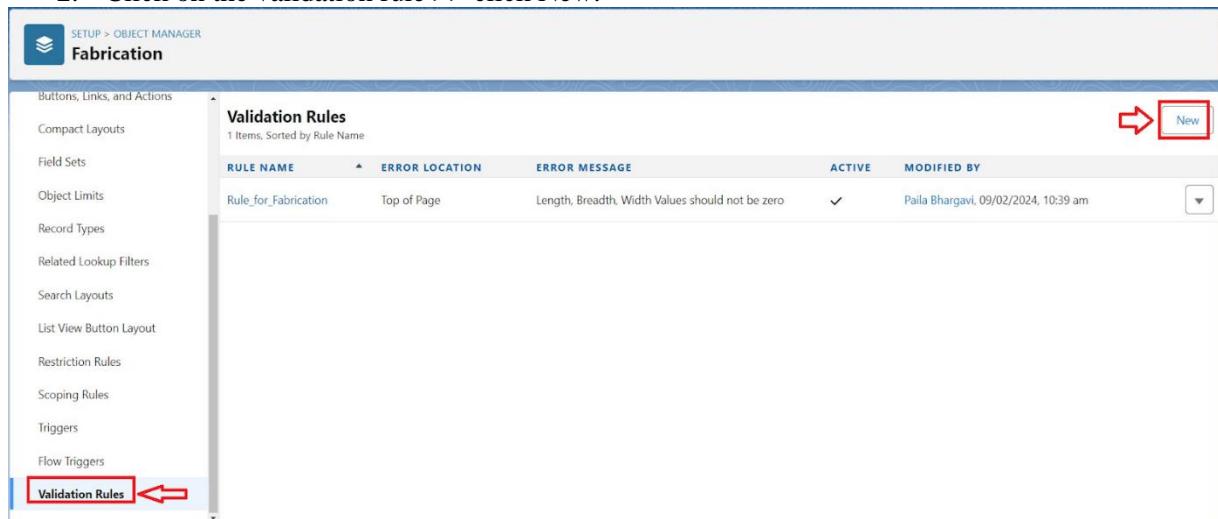
6. Click on Save

Similarly, Create the Record Types on Welding Page Layout, Cutting Page Layout and Folding Page Layout

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 :

OR(Length__c == 0, Breadth__c == 0, Width__c ==0, Quantity == 0)

Validation Rule Edit

Save Save & New Cancel

Rule Name: **Rule_for_Fabrication**

Active:

Description: This rule will not allow field values to be '0'.

Error Condition Formula

Example: Discount_Percent_c>0.30 More Examples...

Display an error if Discount is more than 30%

If this formula expression is true, display the text defined in the Error Message area

Insert Field Insert Operator ▾

OR(Length_c == 0, Breadth_c == 0, Width_c == 0, Quantity_c == 0)

Functions

-- All Function Categories -- ▾

- ABS
- ACOS
- ADDMONTHS
- AND**
- ASCII
- ASIN

Insert Selected Function
ABS(number)
Returns the absolute value of a number, a number without its sign
Help on this function

Check Syntax

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.

Error Message

Example: Discount percent cannot exceed 30%

This message will appear when Error Condition formula is true

Error Message: **Length, Breadth, Width, Quantity Values should not be zero**

This error message can either appear at the top of the page or below a specific field on the page

Error Location: Top of Page Field [i](#)

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

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

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.

Letterhead
Letterhead for Email Purpose

Preview your Letterhead details below.

Classic Letterhead Detail	
Letterhead Label	Letterhead for Email Purpose
Letterhead Unique Name	Letterhead_for_Email_Purpose
Available For Use	<input checked="" type="checkbox"/>
Description	
Created By	Paila Bhargavi, 07/02/2024, 3:21 pm
Modified By	Paila Bhargavi, 08/02/2024, 10:19 am

Help for this Page

- Click on select logo >> Now select the logo and click save.

Create Email Template.

To create Email Template:

- Go to setup in quick find box enter email template >> click on classic Email Template.

- Click on >> New Email Template==>HTML (using Classic Letterhead)

Folder : Unfiled public Classic Email templates

Click on available for use

- Email Template Name is "Bill Template"

- Template Unique Name : Auto populated

- Subject : "Fabrication Template"

- 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.

- 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

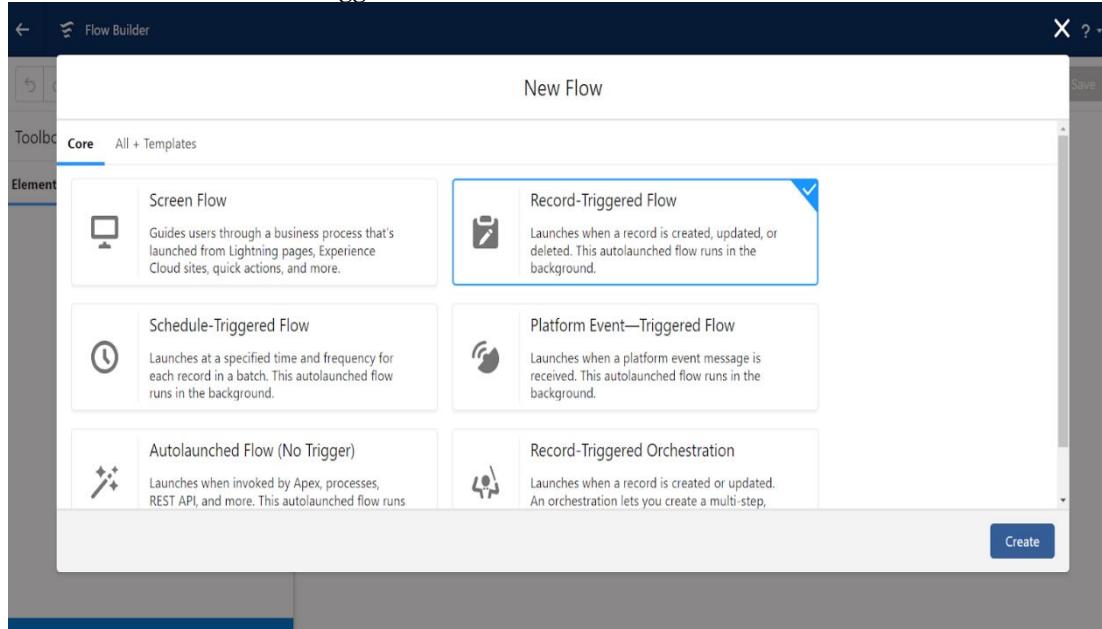
3. Click Save

Similarly create for Pipe-Lining and Shed-Work objects

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.

Select Object

Select the object whose records trigger the flow when they're created, updated, or deleted.

* Object

Fabrication

Configure Trigger

* Trigger the Flow When:

- A record is created
- A record is updated
- A record is created or updated
- A record is deleted

4. Set Entry Conditions : None

5. Select Actions and Related Records

Select Object

Select the object whose records trigger the flow when they're created, updated, or deleted.

* Object

Fabrication

Configure Trigger

* Trigger the Flow When:

- A record is created
- A record is updated
- A record is created or updated
- A record is deleted

Set Entry Conditions

Specify entry conditions to reduce the number of records that trigger the flow and the number of times the flow is executed. Minimizing unnecessary flow executions helps to conserve your org's resources.

If you create a flow that's triggered when a record is updated, we recommend first defining entry conditions. Then select the **Only when a record is updated to meet the condition requirements** option for When to Run the Flow for Updated Records.

Condition Requirements

None

* Optimize the Flow for:

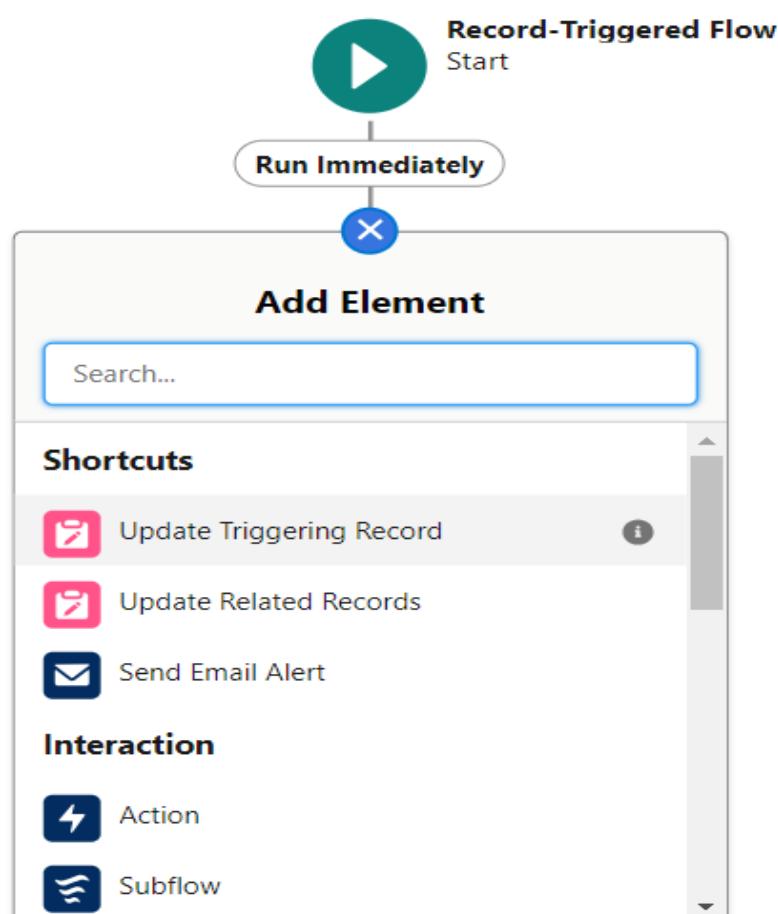
Fast Field Updates

Update fields on the record that triggers the flow to run. This high-performance flow runs *before* the record is saved to the database.

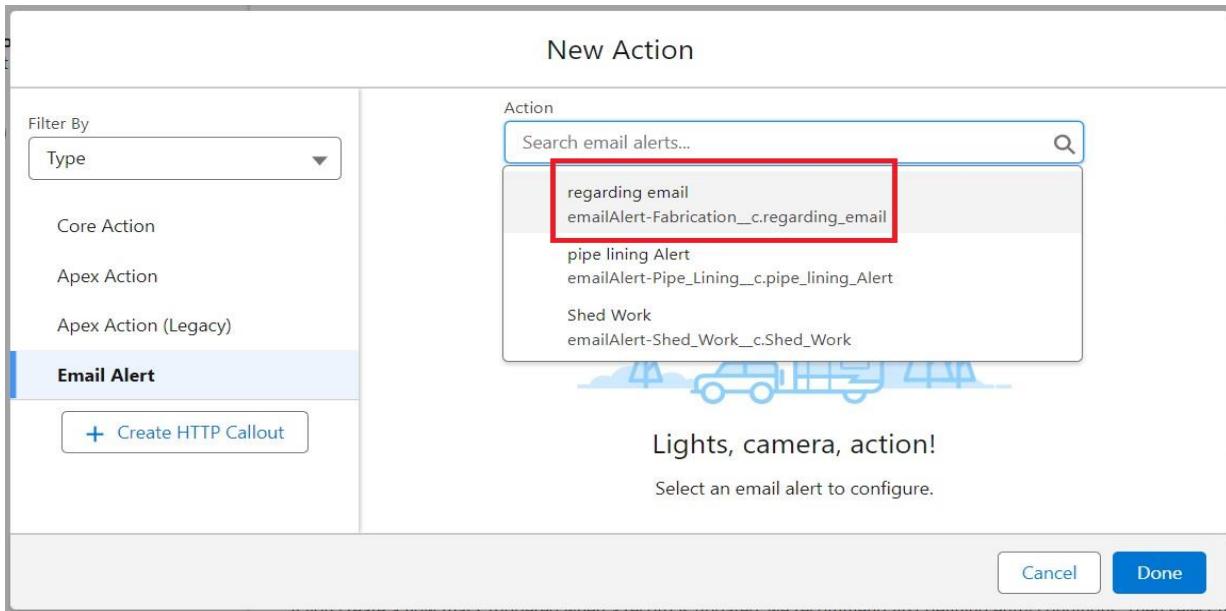
Actions and Related Records

Update any record and perform actions, like send an email. This more flexible flow runs *after* the record is saved to the database.

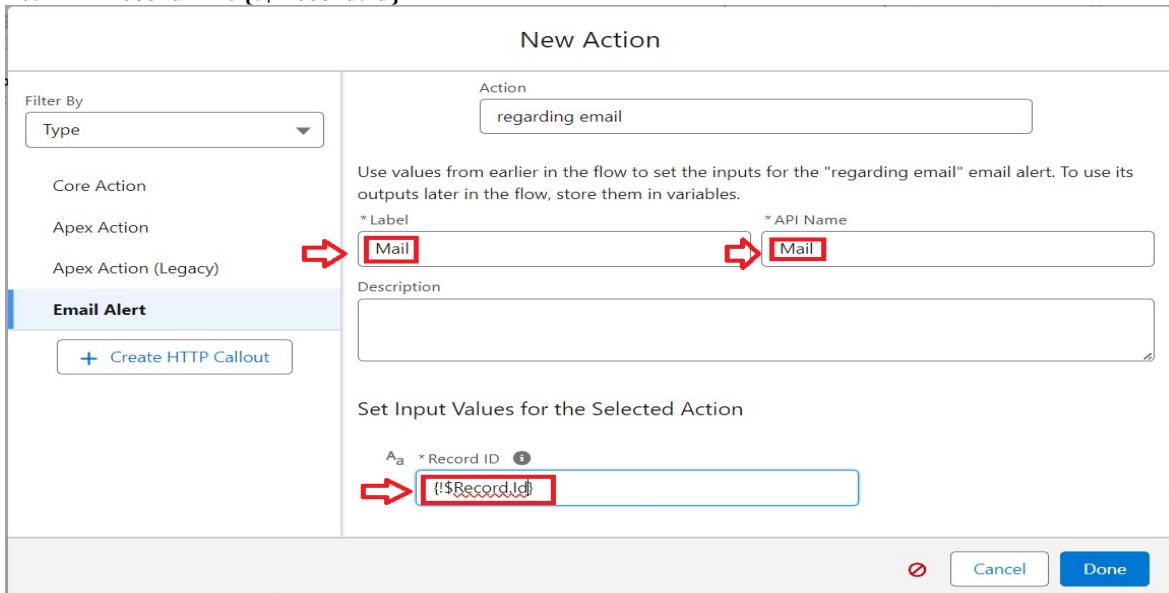
6. Under record trigger flow click on "+" icon and select Send Email Alert.



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

The Outcome Details will be seen like below :

Outcomes For each path the flow can take, create an outcome. For each outcome, specify the conditions that must be met for the flow to take that path.

OUTCOME ORDER +

OUTCOME DETAILS

Delete Outcome

Iron Material	* Label Iron Material	* Outcome API Name Iron_Material
---------------	---	--

Condition Requirements to Execute Outcome
All Conditions Are Met (AND)

Resource \$Record > Material Type X	Operator Equals	Value Iron
--	-----------------	------------

+ Add Condition

When to Execute Outcome i

If the condition requirements are met
 Only if the record that triggered the flow to run is updated to meet the condition requirements

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**

New Update Records

* Label For Iron	* API Name For_Iron
--	---

Description

Use the fabrication record that triggered the flow
 Update records related to the fabrication record that triggered the flow
 Use the IDs and all field values from a record or records
 Specify conditions to identify records, and set fields individually

Set Filter Conditions

Condition Requirements to Update Record
None—Always Update Record

Set Field Values for the Fabrication Record

Field price__c ← Enter value or search resources... 🔍 ✖

+ Add Field

+ New Resource

Global Variables

- \$Api
- \$Flow
- \$Organization
- \$Profile
- \$Record
Fabrication__c
- \$Record__Prior
Fabrication__c

- **In Resource Type : Select Formula**
- **API Name : IronCost**

Data Type : Number

Decimal Places : 2

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

New Resource

* API Name
IronCost

Description

* Data Type
Number

Decimal Places
2

* Formula

Insert a resource... All Functions Insert a function... Select an Operator...

`(!$Record.Amount_c) * 2`

- Click Done

14. After clicking Done, it would look like

New Update Records

* Label
For Iron

* API Name
For_Iron

Description

Use the fabrication record that triggered the flow
 Update records related to the fabrication record that triggered the flow
 Use the IDs and all field values from a record or record collection
 Specify conditions to identify records, and set fields individually

Set Filter Conditions

Condition Requirements to Update Record
None—Always Update Record

Set Field Values for the Fabrication Record

Field price_c	Value <code># IronCost</code>
------------------	----------------------------------

+ Add Field

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

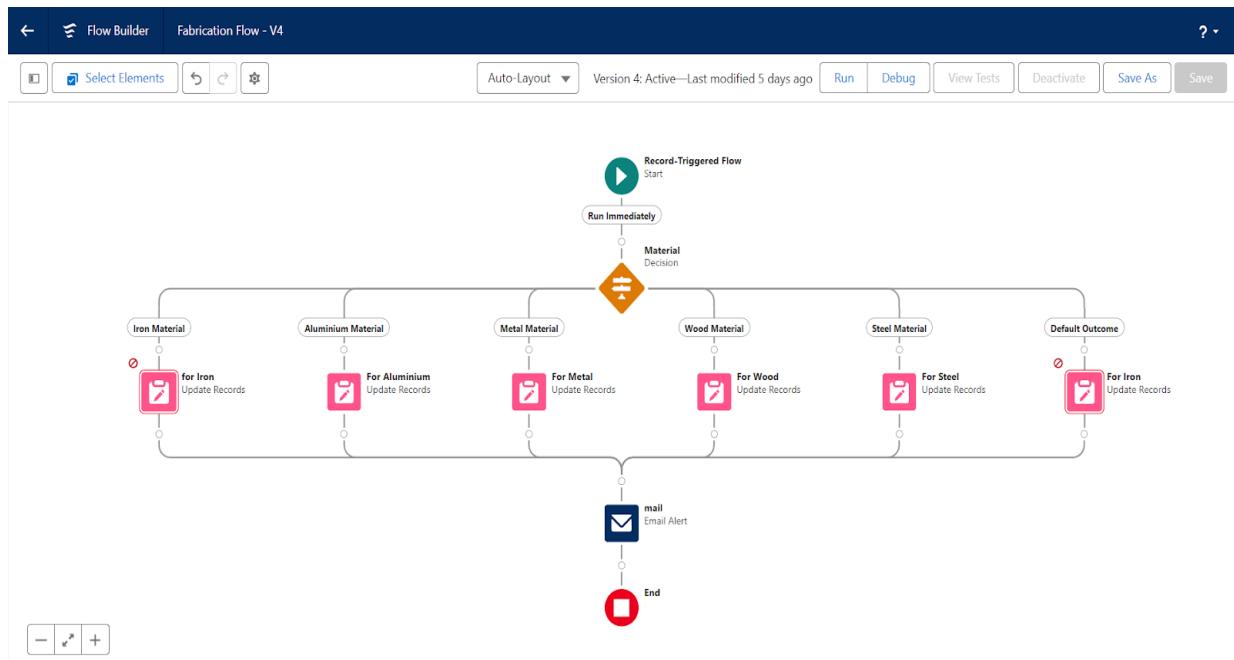
Formula : {!\$Record.Amount__c} * 1.2

- Click Done

19. Click on Save

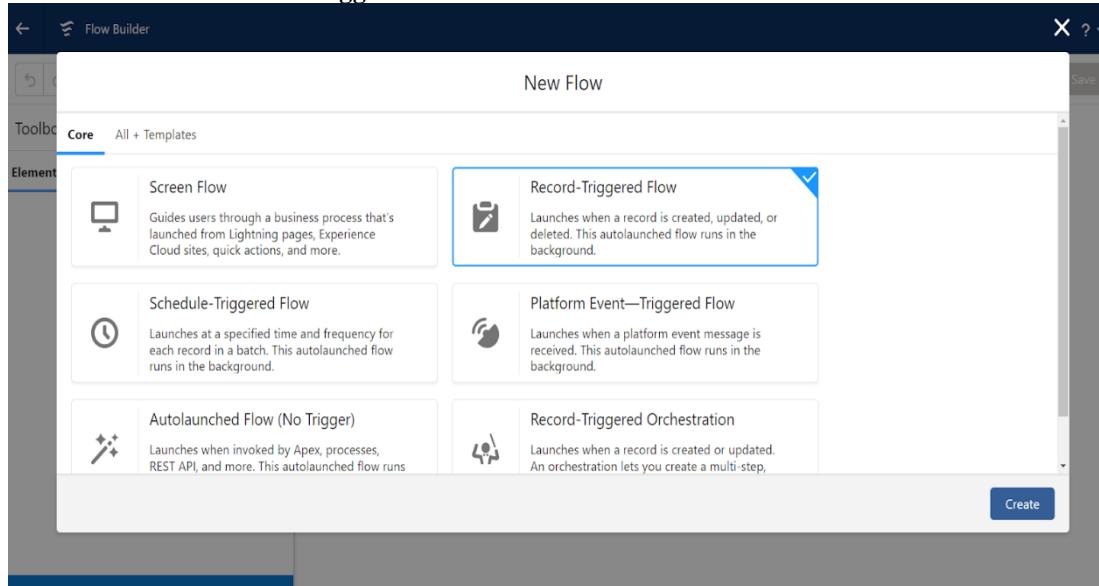
- Flow Label : Fabrication Flow
- Flow API Name : Fabrication_Flow
- Click Save and then active

20. The Flow will like this :

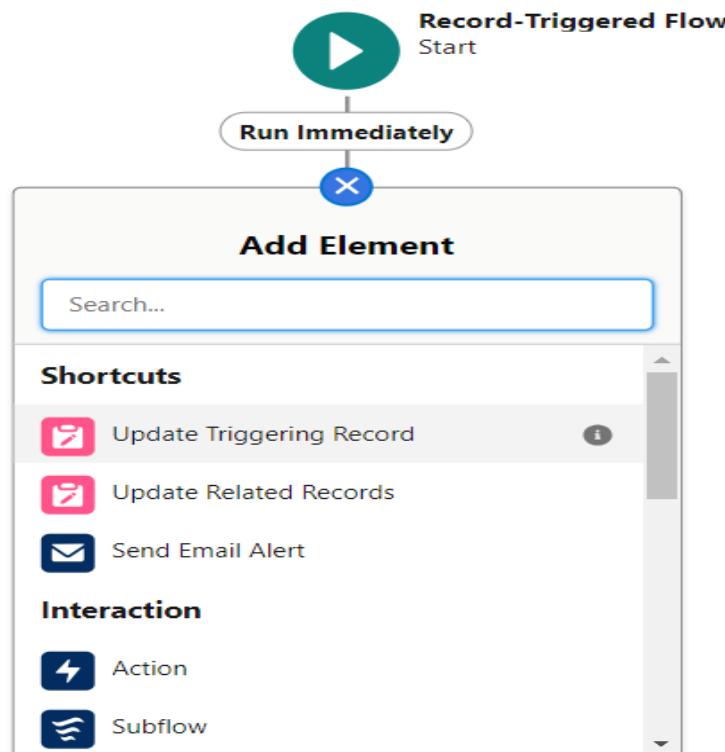


Create Flow to calculate Final Price on Shed Work Object based on Material Type

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}

New Action

Filter By: Type

Action: regarding email

Core Action: Mail

Apex Action: Mail

Apex Action (Legacy): Mail

Email Alert: Create HTTP Callout

Description:

Set Input Values for the Selected Action:

Record ID: {!\$Record.Id}

Cancel Done

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 Metal1, Steel(for each outcome keep the respective value)

- For Metal1 >> Value : Metal
- For Steel >> Value : Steel

The Outcome Details will be seen like below :

* Label: material * API Name: material

Description:

Outcomes For each path the flow can take, create an outcome. For each outcome, specify the conditions that must be met for the flow to take that path.

OUTCOME ORDER	OUTCOME DETAILS	Delete Outcome
metal1	* Label: metal1 * Outcome API Name: metal1	Delete Outcome
Iron	* Label: metal1 * Outcome API Name: metal1	Delete Outcome
Steel	* Label: metal1 * Outcome API Name: metal1	Delete Outcome
Default Outcome	All Conditions Are Met (AND)	Delete Outcome
	Resource: \${Record > Material_Type} Operator: Equals Value: Metal	Delete Outcome

+ Add Condition

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

14. After clicking Done, it would look like

Edit Update Records
For Metal1 (For_Metal1)

* Label: For Metal1 * API Name: For_Metal1

Description:

* How to Find Records to Update and Set Their Values

Use the shed-work record that triggered the flow

Update records related to the shed-work record that triggered the flow

Use the IDs and all field values from a record or record collection

Specify conditions to identify records, and set fields individually

Set Filter Conditions

Condition Requirements to Update Record: None—Always Update Record

Set Field Values for the Shed-Work Record

Field	Value
Price_c	# Metal1Cost X

- #### 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

The Outcome Details will be seen like below :

Resource	Operator	Value
:\$Record > Material Type for Sh...	Equals	Metal

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

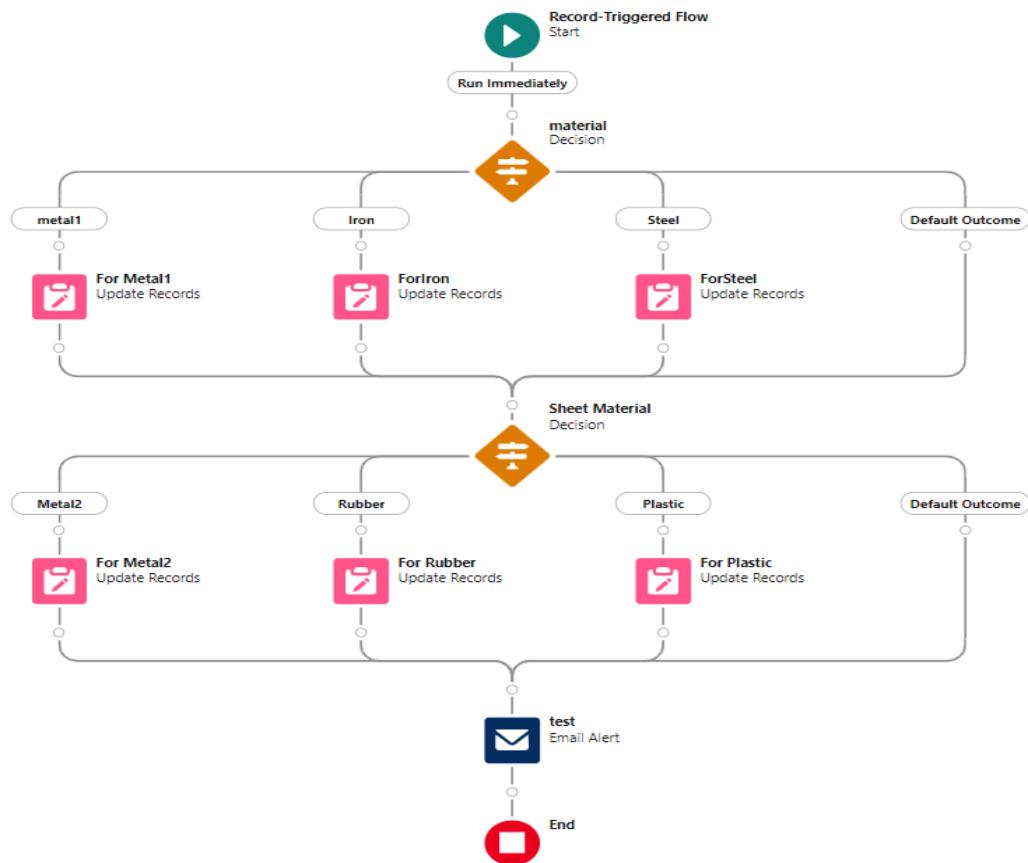
Data Type : Number

Decimal Places : 2

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

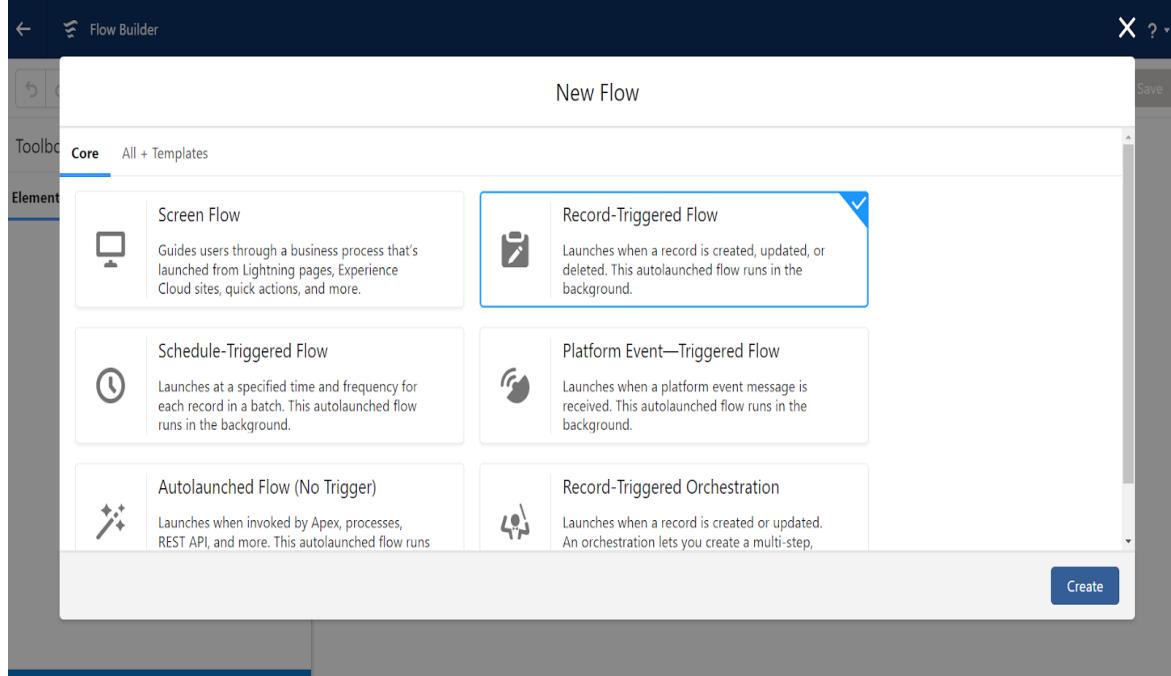
 - Click Done
- 24. Click on Save**
 - Flow Label : Shed Work Flow
 - Flow API Name : Shed_Work_Flow
 - Click Save and then Actiavte

- 25. The Shed Work Flow would look like this:**

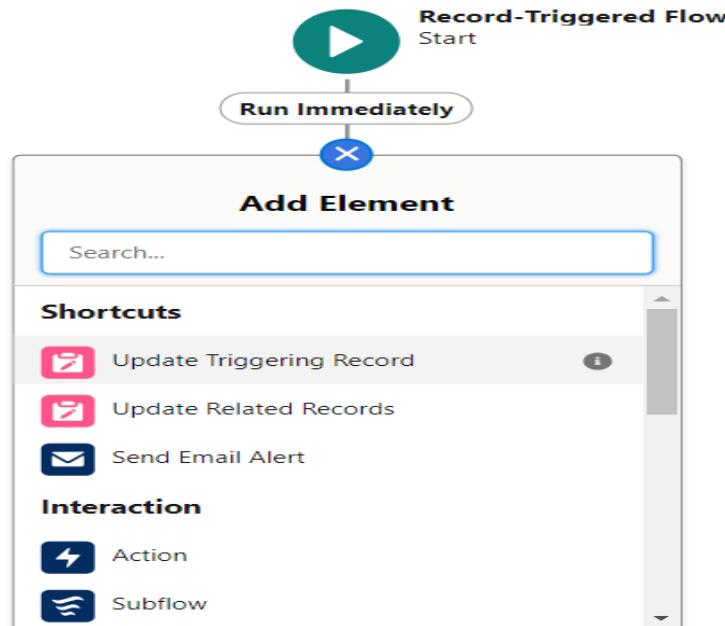


Create Flow to calculate Final Price on Pipe Lining Object based on Material Type

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.

New Action

Action

Search email alerts...

regarding email
emailAlert-Fabrication__c.regarding_email

pipe lining Alert
emailAlert-Pipe_Lining__c.pipe_lining_Alert

Shed Work
emailAlert-Shed_Work__c.Shed_Work

Lights, camera, action!

Select an email alert to configure.

Cancel Done

33. Label : Mail

34. API Name : Mail

35. Record ID : {!\$Record.Id}

New Action

Action

regarding email

Use values from earlier in the flow to set the inputs for the "regarding email" email alert. To use its outputs later in the flow, store them in variables.

* Label **Mail** * API Name **Mail**

Description

Set Input Values for the Selected Action

Aa * Record ID **{!\$Record.Id}**

Cancel Done

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

The Outcome Details will be seen like below :

* Label
Material

* API Name
Material

Description

Outcomes For each path the flow can take, create an outcome. For each outcome, specify the conditions that must be met for the flow to take that path.

OUTCOME ORDER + OUTCOME DETAILS Delete Outcome

Iron

aluminium

Metal

* Label Iron * Outcome API Name Iron

Condition Requirements to Execute Outcome All Conditions Are Met (AND)

Resource \$Record > Material Type X Operator Equals Value Iron

+ Add Condition

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_c

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

Data Type : Number

Decimal Places : 2

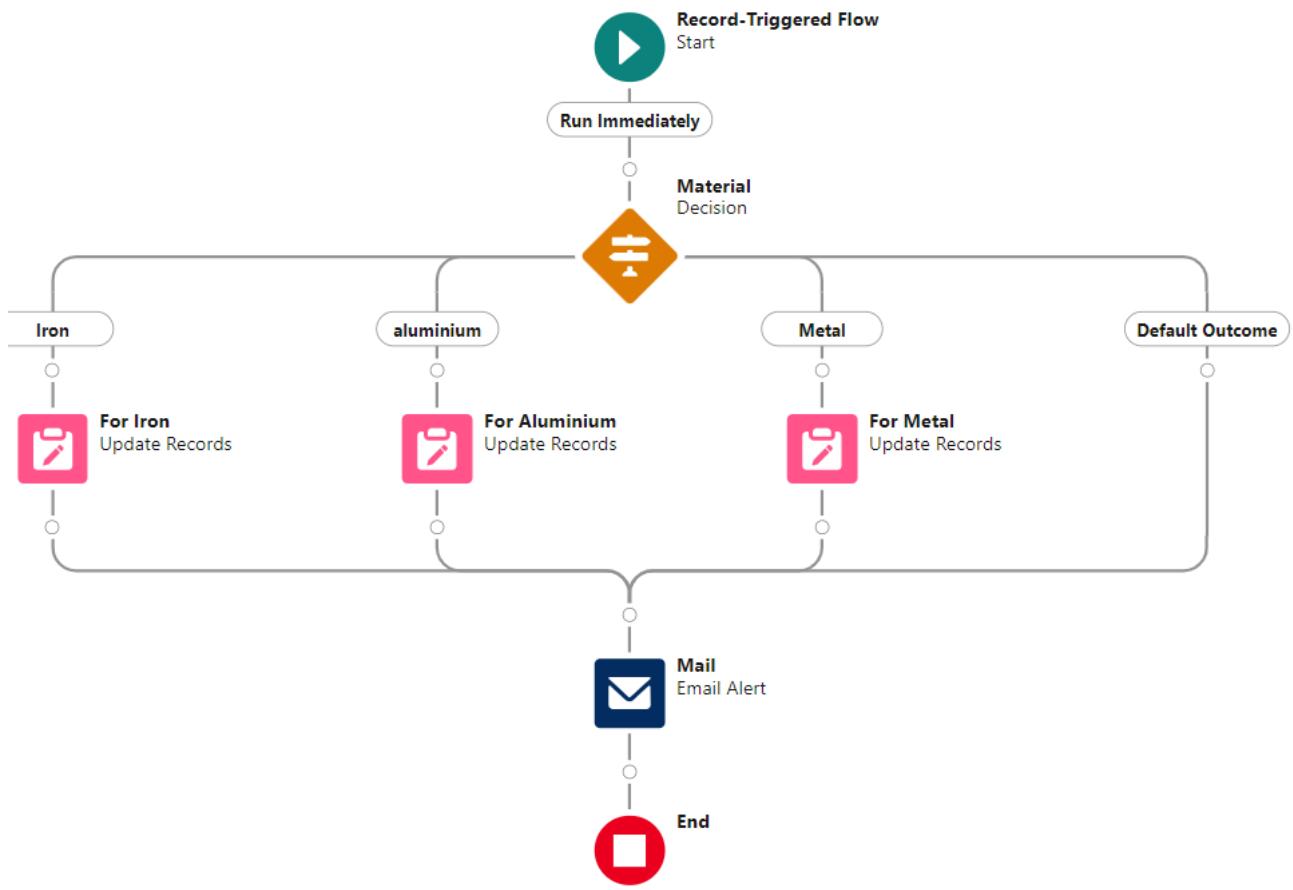
Formula : {\$Record.Amount_c} * 1.5

- Click Done

42. Click on Save

- Flow Label : Pipe Lining Flow
- Flow API Name : Pipe_Lining_Flow
- Click Save

43. The Flow will like this :



Milestone 11 : Conclusion

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.

Performance	20	
Program	40	
Result	20	
Record	20	
Total	100	

Result:

A CRM application to engineering works in salesforce can streamline operations for a engineering business by An application efficiently manage client information for engineering projects, encompassing details such as company information, owner details, contact information, worker details, and their respective requirements for materials, including measurements. Salesforce's CRM capabilities,combined with custom development on the salesforceplatform .