

Garage Management system

By

Muskan Lodhi

Muskanlodhi1421@gmail.com

Abstract

The Garage Management System (GMS) is a software tool designed for automotive repair facilities. It aims to enhance the operations of garages by providing features that improve service delivery, increase operational efficiency, and foster strong customer relationships. The system is user-friendly, meaning it's easy to use and navigate, and it comes with powerful features that help garages manage their day-to-day tasks effectively. By using GMS, garages can remain competitive in the market and provide a smooth and satisfying experience for both their customers and staff.

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Task 1: 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.

Create Customer DetailsObject

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 >> Customer Details
2. Plural label name >> Customer Details.
3. Enter Record Name Label and Format
 - Record Name >> Customer Name
 - Data Type >> Text

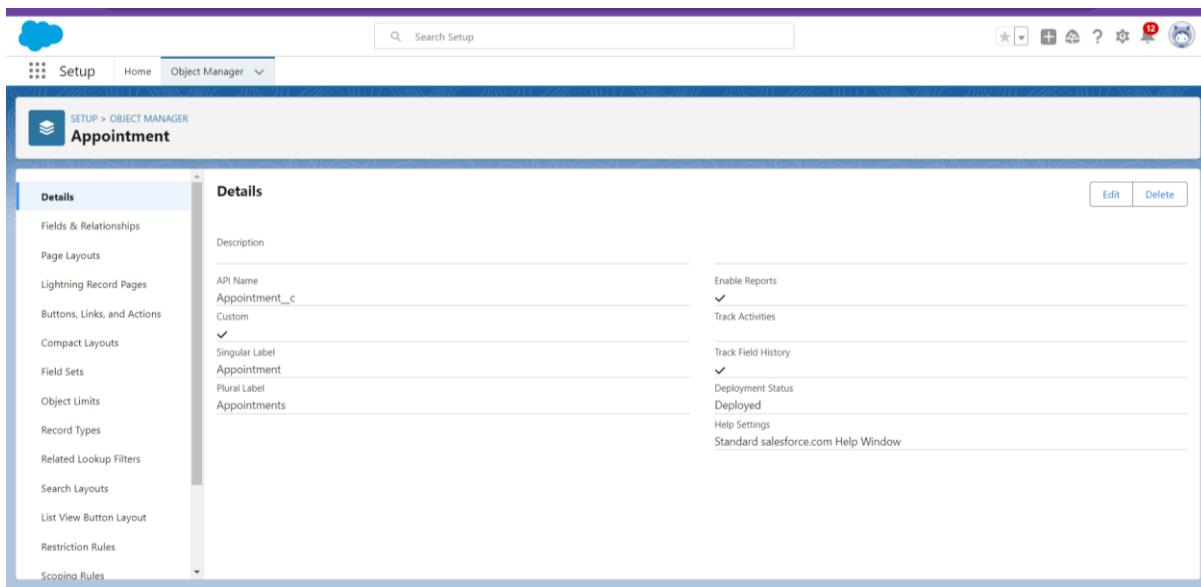
2. Click on Allow reports and Track Field History,

3. Allow search >> Save

The screenshot shows the Salesforce Object Manager interface. At the top, there's a navigation bar with 'Setup', 'Home', and 'Object Manager'. The main title is 'SETUP > OBJECT MANAGER' followed by the object name 'Customer Details'. On the left, a sidebar lists various object settings: Fields & Relationships, Page Layouts, Lightning Record Pages, Buttons, Links, and Actions, Compact Layouts, Field Sets, Object Limits, Record Types, Related Lookup Filters, Search Layouts, List View Button Layout, Restriction Rules, and Scoping Rules. The main content area is titled 'Details' and contains fields for 'Description', 'API Name' (set to 'Customer__c'), 'Custom' (checkbox checked), 'Singular Label' (set to 'Customer Details'), 'Plural Label' (set to 'Customer Details'), and 'Enable Reports' (checkbox checked). There are also sections for 'Track Activities' (checkbox checked), 'Track Field History' (checkbox checked), 'Deployment Status' (set to 'Deployed'), and 'Help Settings' (set to 'Standard salesforce.com Help Window'). At the bottom right of the details panel are 'Edit' and 'Delete' buttons.

Create Appointment Object

1. From the setup page >> Click on Object Manager >> Click on Create >> Click on Custom Object.
 1. Enter the label name >> Appointment
 2. Plural label name >> Appointments
 3. Enter Record Name Label and Format
 - Record Name >> Appointment Name
 - Data Type >> Auto Number
 - Display Format >> app-{000}
 - Starting number >> 1
2. Click on Allow reports and Track Field History,
3. Allow search >> Save.



Create Service records Object

1. From the setup page >> Click on Object Manager >> Click on Create >> Click on Custom Object.
 1. Enter the label name >> Service records
 2. Plural label name >> Service records
 3. Enter Record Name Label and Format
 - Record Name >> Service records Name
 - Data Type >> Auto Number
 - Display Format >> ser-{000}
 - Starting number >> 1
2. Click on Allow reports and Track Field History,
3. Allow search >> Save.

The screenshot shows the Salesforce Object Manager interface. The top navigation bar includes links for Setup, Home, and Object Manager. A search bar labeled 'Search Setup' is present. The main content area displays the 'Service records' object details. On the left, a sidebar lists various configuration options: 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 'Details' section shows the API Name as 'Service_records__c'. Under the 'Custom' section, Singular Label is set to 'Service records' and Plural Label is also set to 'Service records'. In the 'Enable Reports' section, 'Track Activities' is checked. Under 'Track Field History', 'Deployment Status' is set to 'Deployed'. The 'Help Settings' section indicates a 'Standard salesforce.com Help Window'. At the bottom right of the main area are 'Edit' and 'Delete' buttons.

Create Billing details and feedback Object

1. From the setup page >> Click on Object Manager >> Click on Create >> Click on Custom Object.

1. Enter the label name >> Billing details and feedback
2. Plural label name >> Billing details and feedback
3. Enter Record Name Label and Format
 - Record Name >> Billing details and feedback Name
 - Data Type >> Auto Number
 - Display Format >> bill-{000}
 - Starting number >> 1

2. Click on Allow reports and Track Field History,

3. Allow search >> Save

The screenshot shows the Salesforce Object Manager interface. The top navigation bar includes links for Setup, Home, and Object Manager. A search bar labeled 'Search Setup' is present. The main content area displays the 'Billing details and feedback' object details. On the left, a sidebar lists various configuration options: 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 'Details' section shows the API Name as 'Billing_details_and_feedback__c'. Under the 'Custom' section, Singular Label is set to 'Billing details and feedback' and Plural Label is also set to 'Billing details and feedback'. In the 'Enable Reports' section, 'Track Activities' is checked. Under 'Track Field History', 'Deployment Status' is set to 'Deployed'. The 'Help Settings' section indicates a 'Standard salesforce.com Help Window'. At the bottom right of the main area are 'Edit' and 'Delete' buttons.

Task 2: TABS

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

Creating a Custom Tabs

1. Go to setup page >> type Tabs in Quick Find bar >> click on tabs >> New (under custom object tab)
2. Select Object(Customer Details) >> 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.
5. Repeat the step from 1 to 4 to make other tabs also.

The screenshot shows the Salesforce Setup interface for creating custom tabs. The URL is <https://instituteoftechnologyandm-b-dev-ed.lightning.force.com/lightning/setup/CustomTabs/home>. The left sidebar has 'User Interface' expanded, with 'Tabs' selected. The main content area is titled 'Custom Tabs' and contains a sub-section 'Custom Object Tabs'. It lists four tabs: 'Appointments' (Apple icon), 'Billing details and feedback' (Chess piece icon), 'Customer Details' (Dice icon), and 'Service records' (Globe icon). Below this are sections for 'Web Tabs' (No Web Tabs have been defined) and 'Visualforce Tabs' (No Visualforce Tabs have been defined). A 'Help for this Page' link is visible in the top right.

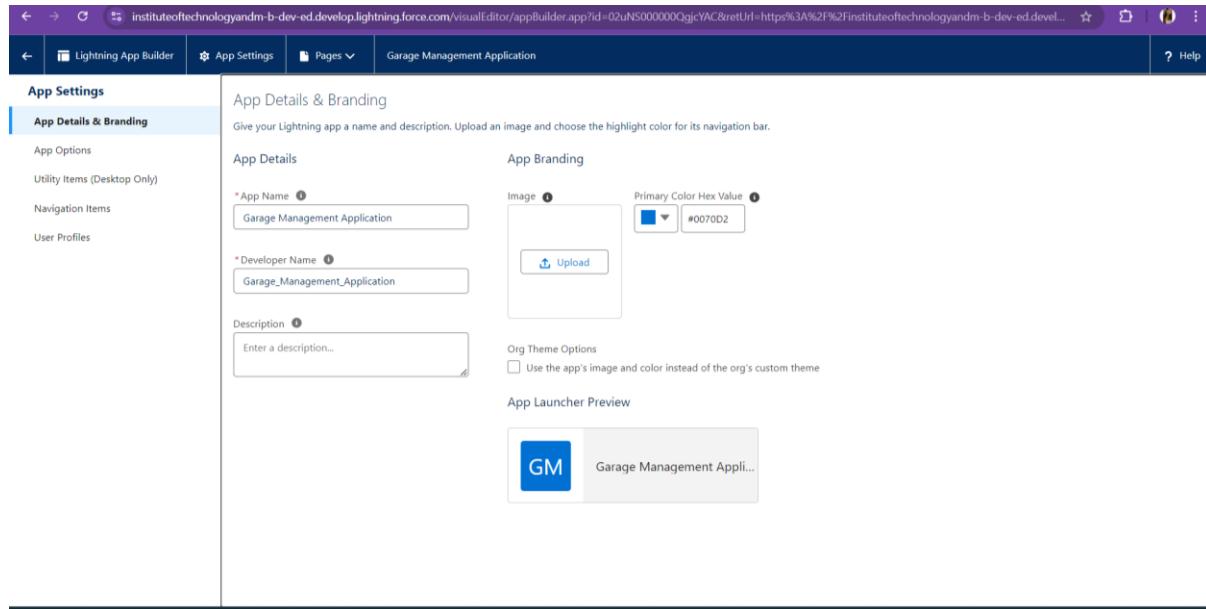
Task 3: The Lightning App

An app is a collection of items that work together to serve a particular function. In Lightning Experience, Lightning apps give your users access to sets of objects, tabs, and other items all in one convenient bundle in the navigation bar.

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 as Garage Management Application >> Next >> (App option page) keep it as default >> Next >> (Utility Items) keep it as default >> Next.
3. To Add Navigation Items:
4. Select the items (Customer Details, Appointments, Service records, Billing details and feedback, Reports and Dashboards) from the search bar and move it using the arrow button >> Next.
5. To Add User Profiles:
Search profiles (System administrator) in the search bar >> click on the arrow button >> save & finish.



The screenshot shows the Lightning App Builder interface with the URL <https://instituteoftechnologyandm-b-dev-ed.lightning.force.com/visualEditor/appBuilder.app>. The page title is "Garage Management Application". The left sidebar has sections for "App Settings" (selected), "App Details & Branding", "App Options", "Utility Items (Desktop Only)", and "Navigation Items" (selected). The main content area is titled "Navigation Items" with a sub-instruction: "Choose the items to include in the app, and arrange the order in which they appear. Users can personalize the navigation to add or move items, but users can't remove or rename the items that you add. Some navigation items are available only for phone or only for desktop. These items are dropped from the navigation bar when the app is viewed in a format that the item doesn't support." Below this, there are two panels: "Available Items" on the left containing a search bar and a list of items like Accounts, All Sites, Alternative Payment Methods, Analytics, App Launcher, Appointment Categories, Appointment Invitations, Approval Requests, Asset Action Sources, and Asset Actions; and "Selected Items" on the right containing a list of items like Customer Details, Appointments, Service records, and Billing details and feedback, each with up and down arrows for reordering.

Task 4: FIELDS

When we talk about Salesforce, Fields represent the data stored in the columns of a relational database. It can also hold any valuable information that you require for a specific object. Hence, the overall searching, deletion, and editing of the records become simpler and quicker.

Types of Fields

Standard Fields

Custom Fields

Creation of fields for the Customer Details object

1. Go to setup >> click on Object Manager >> type object name(Customer Details) 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 : Gmail
 - Field Name : gets auto generated
 - Click on Next >> Next >> Save and new

The screenshot shows the Salesforce Object Manager interface. The left sidebar is collapsed, and the main area displays the 'Customer Details' object. In the center, the 'Fields & Relationships' section is open, showing a table of existing fields. The table has columns for FIELD LABEL, FIELD NAME, DATA TYPE, CONTROLLING FIELD, and INDEXED. The indexed column contains checkmarks for most fields except 'Name'. A new field, 'Gmail', has been added and is listed in the table. The table header includes 'Quick Find', 'New', 'Deleted Fields', 'Field Dependencies', and 'Set History Tracking' buttons.

| FIELD LABEL | FIELD NAME | DATA TYPE | CONTROLLING FIELD | INDEXED |
|------------------|----------------|--------------------|-------------------|---------|
| Created By | CreatedBy | Lookup(User) | | |
| Customer Name | Name | Text(80) | | ✓ |
| Gmail | Gmail_c | Email | | |
| Last Modified By | LastModifiedBy | Lookup(User) | | |
| Owner | OwnerId | Lookup(User,Group) | | ✓ |
| Phone number | Phone_number_c | Phone | | |

Creation of Lookup Fields

1. Go to setup >> click on Object Manager >> type object name(Billing details and feedback) in search bar >> click on the object.

2. Now click on “Fields & Relationships” >> New.
3. Select “Look-up relationship” as data type and click Next.
4. Select the related object “ Service records” and click next.
5. Next >> Next >> Save & new.

Appointment Custom Field Customer Details

Custom Field Definition Detail

| Field Information | | Object Name | Appointment |
|---------------------------|----------------------------------|-------------|----------------------------------|
| Field Label | Customer Details | Data Type | Lookup |
| Field Name | Customer_Details | | |
| API Name | Customer_Details__c | | |
| Description | Help Text | | |
| Data Owner | | | |
| Field Usage | | | |
| Data Sensitivity Level | | | |
| Compliance Categorization | | | |
| Created By | Muskan Lohri 30/07/2024, 4:43 pm | Modified By | Muskan Lohri 30/07/2024, 4:43 pm |

Lookup Options

| Related To | Customer_Details | Child Relationship Name | Appointments |
|---|--------------------------------|-------------------------|--------------|
| Related List Label | Appointments | | |
| Required | <input type="checkbox"/> | | |
| What to do if the lookup record is deleted? | Clear the value of this field. | | |

Service records Custom Field Appointment

Custom Field Definition Detail

| Field Information | | Object Name | Service records |
|---------------------------|----------------------------------|-------------|----------------------------------|
| Field Label | Appointment | Data Type | Lookup |
| Field Name | Appointment | | |
| API Name | Appointment__c | | |
| Description | Help Text | | |
| Data Owner | | | |
| Field Usage | | | |
| Data Sensitivity Level | | | |
| Compliance Categorization | | | |
| Created By | Muskan Lohri 30/07/2024, 5:23 pm | Modified By | Muskan Lohri 30/07/2024, 5:23 pm |

Lookup Options

| Related To | Appointment | Child Relationship Name | Service_records |
|---|---|-------------------------|-----------------|
| Related List Label | Service records | | |
| Required | <input checked="" type="checkbox"/> | | |
| What to do if the lookup record is deleted? | Don't allow deletion of the lookup record that's part of a lookup relationship. | | |

The screenshot shows the Salesforce Setup interface under the Object Manager. A custom field named "Billing details and feedback" has been created for the "Service records" object. The field is of type "Lookup" and points to the "Billing details and feedback" object. The "Field Label" is "Service records". The "API Name" is "Service_records__c". The "Object Name" is "Billing_details_and_feedback" and the "Data Type" is "Lookup". The field was created by Muskan Lodhi on 30/07/2024, 5:24 pm.

Creation of Checkbox Fields

The screenshot shows the Salesforce Setup interface under the Object Manager. A custom field named "Maintenance service" has been created for the "Appointment" object. The field is of type "Checkbox". The "Field Label" is "Maintenance service". The "API Name" is "Maintenance_service__c". The "Object Name" is "Appointment" and the "Data Type" is "Checkbox". The field was created by Muskan Lodhi on 30/07/2024, 5:26 pm. The default value is "Unchecked". There are no dependencies defined for this field.

The screenshot shows the Salesforce Object Manager interface. The top navigation bar includes the Salesforce logo, a search bar labeled "Search Setup", and various system icons. The main title is "SETUP > OBJECT MANAGER". Below it, the specific object being edited is "Appointment".

The left sidebar contains a navigation tree with the following items:

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

The right panel displays the "Custom Field Definition Detail" for the "Appointment Custom Field Replacement Parts".

Field Information

| | | | |
|---------------------------|-----------------------|-------------|-------------|
| Field Label | Replacement Parts | Object Name | Appointment |
| Field Name | Replacement_Parts | Data Type | Checkbox |
| API Name | Replacement__Parts__c | | |
| Description | | | |
| Help Text | | | |
| Data Owner | | | |
| Field Usage | | | |
| Data Sensitivity Level | | | |
| Compliance Categorization | | | |

Created By: Muskan Lodhi, 09/08/2024, 10:33 pm Modified By: Muskan Lodhi, 09/08/2024, 10:33 pm

General Options

| | |
|---------------|-----------|
| Default Value | Unchecked |
|---------------|-----------|

Field Dependencies

| |
|--------------------------|
| No dependencies defined. |
|--------------------------|

The screenshot shows the Salesforce Object Manager interface. The top navigation bar includes the Salesforce logo, a search bar labeled "Search Setup", and various system icons. The main title is "SETUP > OBJECT MANAGER". Below it, the specific object being edited is "Service records".

The left sidebar contains a navigation tree with the following items:

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

The right panel displays the "Custom Field Definition Detail" for the "Service records Custom Field Quality Check Status".

Field Information

| | | | |
|---------------------------|-------------------------|-------------|-----------------|
| Field Label | Quality Check Status | Object Name | Service records |
| Field Name | Quality_Check_Status | Data Type | Checkbox |
| API Name | Quality_Check_Status__c | | |
| Description | | | |
| Help Text | | | |
| Data Owner | | | |
| Field Usage | | | |
| Data Sensitivity Level | | | |
| Compliance Categorization | | | |

Created By: Muskan Lodhi, 30/07/2024, 5:27 pm Modified By: Muskan Lodhi, 30/07/2024, 5:27 pm

General Options

| | |
|---------------|-----------|
| Default Value | Unchecked |
|---------------|-----------|

Field Dependencies

| |
|--------------------------|
| No dependencies defined. |
|--------------------------|

Creation of date Fields

The screenshot shows the Salesforce Setup interface for creating a custom field named 'Appointment Date' on the 'Appointment' object. The 'Field & Relationships' tab is selected in the sidebar. The main panel displays the 'Custom Field Definition Detail' for 'Appointment Date'. Key details include:

- Field Label:** Appointment Date
- Field Name:** Appointment_Date
- API Name:** Appointment_Date__c
- Data Type:** Date
- Object Name:** Appointment
- Description:** (empty)
- Help Text:** (empty)
- Data Owner:** (empty)
- Field Usage:** (empty)
- Data Sensitivity Level:** (empty)
- Compliance Categorization:** (empty)
- Created By:** Muskan Lodhi, 30/07/2024, 5:20 pm
- Modified By:** Muskan Lodhi, 30/07/2024, 5:20 pm

The 'General Options' section shows 'Required' checked and 'Default Value' as (empty). The 'Validation Rules' section indicates 'No validation rules defined'.

Creation of Currency Fields

The screenshot shows the Salesforce Setup interface for creating a custom field named 'Service Amount' on the 'Appointment' object. The 'Field & Relationships' tab is selected in the sidebar. The main panel displays the 'Custom Field Definition Detail' for 'Service Amount'. Key details include:

- Field Label:** Service Amount
- Field Name:** Service_Amount
- API Name:** Service_Amount__c
- Data Type:** Currency
- Object Name:** Appointment
- Description:** (empty)
- Help Text:** (empty)
- Data Owner:** (empty)
- Field Usage:** (empty)
- Data Sensitivity Level:** (empty)
- Compliance Categorization:** (empty)
- Created By:** Muskan Lodhi, 30/07/2024, 5:33 pm
- Modified By:** Muskan Lodhi, 30/07/2024, 5:33 pm

The 'General Options' section shows 'Required' unchecked and 'Default Value' as (empty). The 'Currency Options' section specifies 'Length' as 18 and 'Decimal Places' as 0.

Creation of Text Fields

The screenshot shows the Salesforce Setup interface under the Object Manager. A custom field named "Payment Paid" has been created for the "Billing details and feedback" object. The field is of type Currency with a length of 18 and 0 decimal places. It is required and has a unique constraint. The field was created by Muskan Lohi on 30/07/2024 at 5:34 pm.

| Field Label | Payment Paid | Object Name | Billing details and feedback |
|---------------------------|---------------------|-------------|------------------------------|
| Field Name | Payment_Paid | Data Type | Currency |
| API Name | Payment_Paid__c | | |
| Description | | | |
| Help Text | | | |
| Data Owner | | | |
| Field Usage | | | |
| Data Sensitivity Level | | | |
| Compliance Categorization | | | |
| Created By | Muskan Lohi | Modified By | Muskan Lohi |
| | 30/07/2024, 5:34 pm | | 30/07/2024, 5:34 pm |

The screenshot shows the Salesforce Setup interface under the Object Manager. A custom field named "Vehicle number plate" has been created for the "Appointment" object. The field is of type Text and is required and unique. It has a case-sensitive constraint and no external ID. The field was created by Muskan Lohi on 30/07/2024 at 5:35 pm.

| Field Label | Vehicle number plate | Object Name | Appointment |
|---------------------------|-------------------------|-------------|---------------------|
| Field Name | Vehicle_number_plate | Data Type | Text |
| API Name | Vehicle_number_plate__c | | |
| Description | | | |
| Help Text | | | |
| Data Owner | | | |
| Field Usage | | | |
| Data Sensitivity Level | | | |
| Compliance Categorization | | | |
| Created By | Muskan Lohi | Modified By | Muskan Lohi |
| | 30/07/2024, 5:35 pm | | 30/07/2024, 5:35 pm |

The screenshot shows the Salesforce Setup interface under the Object Manager. A custom field named "Rating for service" has been created. The field details are as follows:

- Field Label:** Rating for service
- Field Name:** Rating_for_service
- API Name:** Rating_for_service_c
- Description:** (empty)
- Help Text:** (empty)
- Data Owner:** (empty)
- Field Usage:** (empty)
- Data Sensitivity Level:** (empty)
- Compliance Categorization:** (empty)
- Created By:** Muskan Lothi, 30/07/2024, 5:36 pm
- Modified By:** Muskan Lothi, 31/07/2024, 5:00 pm

The "General Options" section includes:

- Required: checked
- Unique: unchecked
- Case Sensitive: unchecked
- External ID: unchecked
- Default Value: (empty)

Creation of Picklist Fields

The screenshot shows the Salesforce Setup interface under the Object Manager. A custom field named "Service Status" has been created. The field details are as follows:

- Field Label:** Service Status
- Field Name:** Service_Status
- API Name:** Service_Status_c
- Description:** (empty)
- Help Text:** (empty)
- Data Owner:** (empty)
- Field Usage:** (empty)
- Data Sensitivity Level:** (empty)
- Compliance Categorization:** (empty)
- Created By:** Muskan Lothi, 30/07/2024, 5:40 pm
- Modified By:** Muskan Lothi, 30/07/2024, 5:40 pm

The "General Options" section includes:

- Required: unchecked
- Default Value: (empty)

The "Picklist Options" section includes:

- Restrict picklist to the values defined in the value set: checked

The screenshot shows the Salesforce Setup interface under the Object Manager. A custom field named 'Payment Status' is being created for the 'Billing details and feedback' object. The field is of type Picklist and has a single value: 'Paid'. The 'Field Label' is 'Payment Status' and the 'API Name' is 'Payment_Status__c'. The 'Object Name' is 'Billing details and feedback' and the 'Data Type' is 'Picklist'. The field was created by Muskan Lodhi on 30/07/2024 at 5:41 pm.

Creating Formula Field in Service records Object

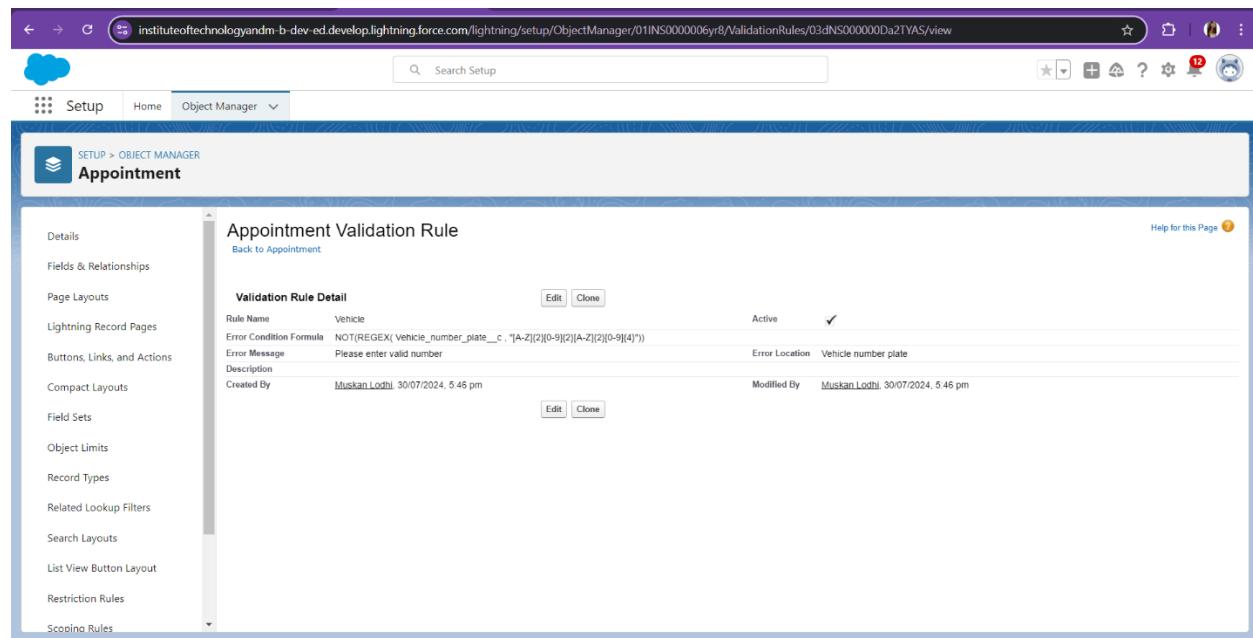
The screenshot shows the Salesforce Setup interface under the Object Manager. A formula field named 'service date' is being created for the 'Service records' object. The field is of type Formula and uses the formula 'CreatedDate'. The 'Field Label' is 'service date' and the 'API Name' is 'service_date__c'. The 'Object Name' is 'Service records' and the 'Data Type' is 'Formula'. The field was created by Muskan Lodhi on 30/07/2024 at 5:44 pm.

Task 5: Validation rule

Validation rules are applied when a user tries to save a record and are used to check if the data meets specified criteria. If the criteria are not met, the validation rule triggers an error message and prevents the user from saving the record until the issues are resolved.

To create a validation rule to an Appointment Object

1. Go to the setup page >> click on object manager >> From drop down click edit for Appointment object.
2. Click on the validation rule >> click New.
3. Enter the Rule name as “ Vehicle ”.
4. Insert the Error Condition Formula as : - NOT(REGEX(Vehicle_number_plate__c , "[A-Z]{2}[0-9]{2}[A-Z]{2}[0-9]{4}"))
5. Enter the Error Message as “Please enter valid number ”, select the Error location as Field and select the field as “Vehicle number plate”, and click Save.



To create a validation rule to an Service records Object

1. Go to the setup page >> click on object manager >> From drop down click edit for Service records object.
2. Click on the validation rule >> click New.
3. Enter the Rule name as “ service_status_note ”.
4. Insert the Error Condition Formula as : -
NOT(ISPICKVAL(Service_Status__c , "Completed"))

5. Enter the Error Message as “still it is pending”, select the Error location as Field and select the field as “Service status”, and click Save

Service records Validation Rule

| Field | Value |
|-------------------------|--|
| Rule Name | service_status_note |
| Error Condition Formula | NOT(ISPICKVAL(Service_Status__c , 'Completed')) |
| Error Message | still it is pending |
| Description | |
| Created By | Muskan Lodhi 30/07/2024, 5:47 pm |
| Modified By | Muskan Lodhi 30/07/2024, 5:47 pm |

To create a validation rule to an Billing details and feedback Object

1. Go to the setup page >> click on object manager >> From drop down click edit for Billing details and feedback object.
2. Click on the validation rule >> click New.
3. Enter the Rule name as “ rating_should_be_less_than_5 ”.
4. Insert the Error Condition Formula as : - NOT(REGEX(Rating_for_service__c , '[1-5]{1}'))
5. Enter the Error Message as “rating should be from 1 to 5”, select the Error location as Field and select the field as “Rating for Service”, and click Save.

Billing details and feedback Validation Rule

| Field | Value |
|-------------------------|--|
| Rule Name | rating_should_be_less_than_5 |
| Error Condition Formula | NOT(REGEX(Rating_for_service__c , '[1-5]{1}')) |
| Error Message | rating should be from 1 to 5 |
| Description | |
| Created By | Muskan Lodhi 30/07/2024, 5:48 pm |
| Modified By | Muskan Lodhi 30/07/2024, 5:48 pm |

Task 6: Duplicate rule

To create a matching rule to an Customer details Object

1. Go to quick find box in setup and search for matching Rule.
2. Click on matching rule >> click on New Rule.
3. Select the object as Customer details and click Next.
4. Give the Rule name : Matching customer details
5. Unique name : is auto populated
6. Define the matching criteria as
7.

| | |
|-----------------|-----------------|
| Field | Matching Method |
| 1. Gmail | Exact |
| 2. Phone Number | Exact |
8. Click save.
9. After Saving Click on Activate

The screenshot shows the Salesforce Setup interface with the 'Matching Rules' page open. The page title is 'Matching Rules' under the 'Matching Rule Detail' section. The rule details are as follows:

| Object | Customer Details |
|-------------------|--|
| Rule Name | Matching customer details |
| Unique Name | Matching_customer_details |
| Description | (Customer Details: Gmail EXACT MatchBlank = FALSE) AND (Customer Details: Phone_number EXACT MatchBlank = FALSE) |
| Matching Criteria | (Customer Details: Gmail EXACT MatchBlank = FALSE) AND (Customer Details: Phone_number EXACT MatchBlank = FALSE) |
| Status | Active |
| Created By | Muskan Lodhi 30/07/2024, 5:49 pm |
| Modified By | Muskan Lodhi 30/07/2024, 5:49 pm |

To create a Duplicate rule to an Customer details Object

The screenshot shows the Salesforce Setup interface for creating a Duplicate Rule. The URL is <https://institutetechnologyandm-b-dev-ed.lightning.force.com/lightning/setup/DuplicateRules/page?address=%2F08mNS00000Nws%3fsetupid%3DDuplicateRules>. The page title is "Duplicate Rules". A search bar at the top right contains "Search Setup". The left sidebar has sections for Data, Duplicate Management, Duplicate Error Logs, and Duplicate Rules (which is selected). A global search bar at the bottom left says "Didn't find what you're looking for? Try using Global Search." The main content area displays a "Customer Details Duplicate Rule" named "Customer Detail duplicate". It includes fields for Rule Name, Description, Object, Record Level Security, Action On Create, Action On Edit, Alert Text, Active, Matching Rule, Conditions, Created By, Order (1 of 1), Operations On Create, Operations On Edit, Matching Criteria (Customer Details: Email EXACT MatchBlank = FALSE) AND (Customer Details: Phone_number EXACT MatchBlank = FALSE), and Modified By.

Task 7: PROFILES

A profile is a group/collection of settings and permissions that define what a user can do in salesforce. Profile controls “Object permissions, Field permissions, User permissions, Tab settings, App settings, Apex class access, Visualforce page access, Page layouts, Record Types, Login hours & Login IP ranges. You can define profiles by the user's job function. For example System Administrator, Developer, Sales Representative.

Manager Profile

1. Go to setup >> type profiles in quick find box >> click on profiles >> clone the desired profile (Standard User) >> enter profile name (Manager) >> Save.
2. While still on the profile page, then click Edit.
3. Select the Custom App settings as default for the Garage management.
4. Scroll down to Custom Object Permissions and Give access permissions for Appointments,Billing details and feedback , service records and customer details objects as mentioned in the below diagram.
5. Changing the session times out after should be “ 8 hours of inactivity”.
6. Change the password policies as mentioned :
7. User passwords expire in should be “ never expires ”.
8. Minimum password length should be “ 8 ”, and click save

The screenshot shows the Salesforce Setup Profiles page. The URL is <https://instituteoftechnologyandm-b-dev-ed.lightning.force.com/lightning/setup/EnhancedProfiles/page?address=%2f00eNS000000PTCb>. The page title is "Profiles". A sub-header says "Profile Manager". It states: "Users with this profile have the permissions and page layouts listed below. Administrators can change a user's profile by editing that user's personal information. If your organization uses Record Types, use the Edit links in the Record Type Settings section below to make one or more record types available to users with this profile." Below this, there is a table titled "Enabled Custom Setting Definitions Access" with one row: "No Custom Setting Definitions enabled". Under "Page Layouts", there are sections for "Standard Object Layouts" and "Location Group Assignment". The "Standard Object Layouts" section lists Global Layout, Email Application, Home Page Layout, Account, and Alternative Payment Method. The "Location Group Assignment" section lists Macro, Object Milestone, Operating Hours, and Opportunity. At the bottom, there are tabs for "Announcement Invitations", "Appointment Invitations", and "Email".

sales person Profile

1. Go to setup >> type profiles in quick find box >> click on profiles >> clone the desired profile (Salesforce Platform User) >> enter profile name (sales person) >> Save.
2. While still on the profile page, then click Edit.

3. Select the Custom App settings as default for the GArage management.
4. Scroll down to Custom Object Permissions and Give access permissions for Appointments,Billing details and feedback , service records and customer details objects as mentioned in the below diagram.
5. And click save

Profile
sales person

Users with this profile have the permissions and page layouts listed below. Administrators can change a user's profile by editing that user's personal information.

If your organization uses Record Types, use the Edit links in the Record Type Settings section below to make one or more record types available to users with this profile.

[Login IP Ranges](#) | [Enabled Apex Class Access](#) | [Enabled Visualforce Page Access](#) | [Enabled External Data Source Access](#) | [Enabled Named Credential Access](#) | [Enabled External Credential Principal Access](#) | [Enabled Custom Metadata Type Access](#) | [Enabled Custom Setting Definition Access](#) | [Enabled Flow Access](#) | [Enabled Service Presence Status Access](#) | [Enabled Custom Permissions](#)

Profile Detail

| | | | |
|--------------|-----------------------------------|----------------|-------------------------------------|
| Name | sales person | Custom Profile | <input checked="" type="checkbox"/> |
| User License | Salesforce Platform | | |
| Description | | | |
| Created By | Muskan Lodhi 31/07/2024, 12:48 pm | Modified By | Muskan Lodhi 09/08/2024, 10:50 pm |

Page Layouts

| Standard Object Layouts | Global | Lead |
|----------------------------|--|---|
| Global Layout | [View Assignment] | Lead Layout [View Assignment] |
| Email Application | Not Assigned [View Assignment] | Location Layout [View Assignment] |
| Home Page Layout | Home Page Default [View Assignment] | Location Group Layout [View Assignment] |
| Account | Account Layout [View Assignment] | Location Group Assignment Layout [View Assignment] |
| Alternative Payment Method | Alternative Payment Method Layout [View Assignment] | Object Milestone Layout [View Assignment] |
| Appointment Invitation | Appointment Invitation Layout | Opportunity Manager [View Assignment] |

Billing details and feedback ✓ □ ✓ ✓ ✓ ✓ ✓ ✓

Service records ✓ □ ✓ ✓ ✓ ✓ ✓ ✓

Session Settings

| | | |
|-------------------------|-----------------------|--|
| Session Times Out After | 8 hours of inactivity | Session Security Level Required at Login |
|-------------------------|-----------------------|--|

Password Policies

| | |
|--|---|
| User passwords expire in | Never expires |
| Enforce password history | 3 passwords remembered |
| Minimum password length | 8 |
| Password complexity requirement | Must include alpha and numeric characters |
| Password question requirement | Cannot contain password |
| Maximum invalid login attempts | 10 |
| Lockout effect period | 15 minutes |
| Obfuscate secret answer for password reset | <input type="checkbox"/> |
| Require a minimum 1 day password lifetime | <input type="checkbox"/> |
| Don't immediately expire links in forgot password emails | <input type="checkbox"/> |

Login Hours

| | | |
|--------------------------|----------------------|----------------------------------|
| No login hours specified | Edit | Login Hours Help |
|--------------------------|----------------------|----------------------------------|

Login IP Ranges

| | |
|---------------------|--------------------------------------|
| New | Login IP Ranges Help |
|---------------------|--------------------------------------|

Task 8: Role & Role Hierarchy

A role in Salesforce defines a user's visibility access at the record level. Roles may be used to specify the types of access that people in your Salesforce organization can have to data. Simply put, it describes what a user could see within the Salesforce organization.

Creating Manager And Other Roles

1. Go to quick find >> Search for Roles >> click on set up roles.
2. Click on Expand All and click on add role under whom this role works.
3. Give Label as “Manager” and Role name gets auto populated. Then click on Save.

The screenshot shows the Salesforce Setup interface with the 'Roles' page selected. The left sidebar shows navigation categories like Users, Feature Settings, Sales, Service, and Case Teams. The main content area displays a hierarchical tree titled 'Your Organization's Role Hierarchy' for the 'institute of technology and management' account. The hierarchy includes roles such as CEO, CFO, COO, Manager, sales.person, SVP_Customer_Service & Support, Customer_Support_International, Customer_Support_North_America, Installation & Repair Services, SVP_Human_Resources, SVP_Sales & Marketing, and VP_International_Sales. Each role has 'Edit | Del | Assign' options. A search bar and a toolbar with various icons are visible at the top.

Task 9: Users

A user is anyone who logs in to Salesforce. Users are employees at your company, such as sales reps, managers, and IT specialists, who need access to the company's records. Every user in Salesforce has a user account. The user account identifies the user, and the user account settings determine what features and records the user can access.

Create Users

1. Go to setup >> type users in quick find box >> select users >> click New user.

2. Fill in the fields

- First Name : Niklaus
- Last Name : Mikaelson
- Alias : Give a Alias Name
- Email id : Give your Personal Email id
- Username : Username should be in this form: text@text.text
- Nick Name : Give a Nickname
- Role : Manager
- User licence : Salesforce
- Profiles : Manager

3. Save.

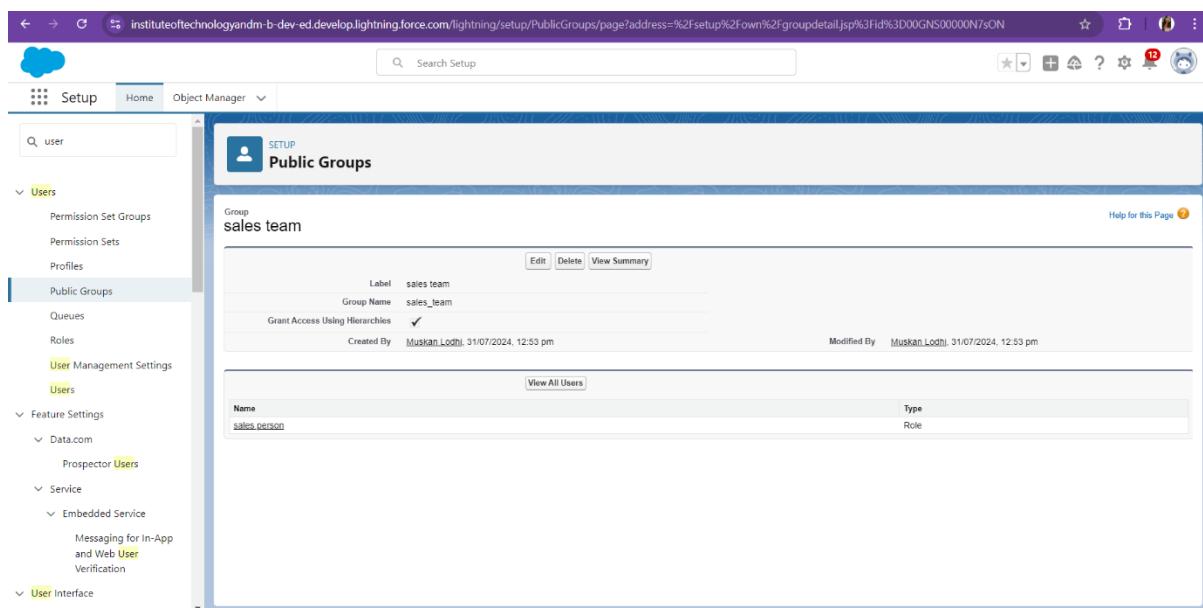
The screenshot shows the Salesforce Setup interface with the URL instituteoftechnologyandm-b-dev-ed.lightning.force.com/lightning/setup/ManageUsers/home. The left sidebar is collapsed, showing the 'Users' section under 'Setup'. The main content area is titled 'SETUP Users' and displays a table of 'All Users'. The table includes columns for Action, Full Name, Alias, Username, Role, Active, and Profile. The table lists several users, including 'Chatter_Expert', 'gary_ncha', 'green_richard', 'Loahi_Muskan', 'Mikaelson_Niklaus', 'User_Integration', 'User_Security', and 'wat_amr'. The 'Profile' column indicates various roles like 'Chatter Free User', 'sales person', 'System Administrator', 'Manager', 'Analytics Cloud Integration User', 'Analytics Cloud Security User', and 'sales person'. At the bottom of the table, there are buttons for 'New User', 'Reset Password(s)', and 'Add Multiple Users'.

Task 10: Public groups

Public groups are a valuable tool for Salesforce administrators and developers to streamline user management, data access, and security settings. By creating and using public groups effectively, you can maintain a secure and organized Salesforce environment while ensuring that users have appropriate access to the resources they need.

Creating New Public Group

1. Go to setup >> type users in quick find box >> select public groups >> click New.
2. Give the Label as “sales team”.
3. Group name is autopopulated.
4. Search for Roles.
5. In Available Members select Sales person and click on add it will be moved to selected member.
6. Click on save.

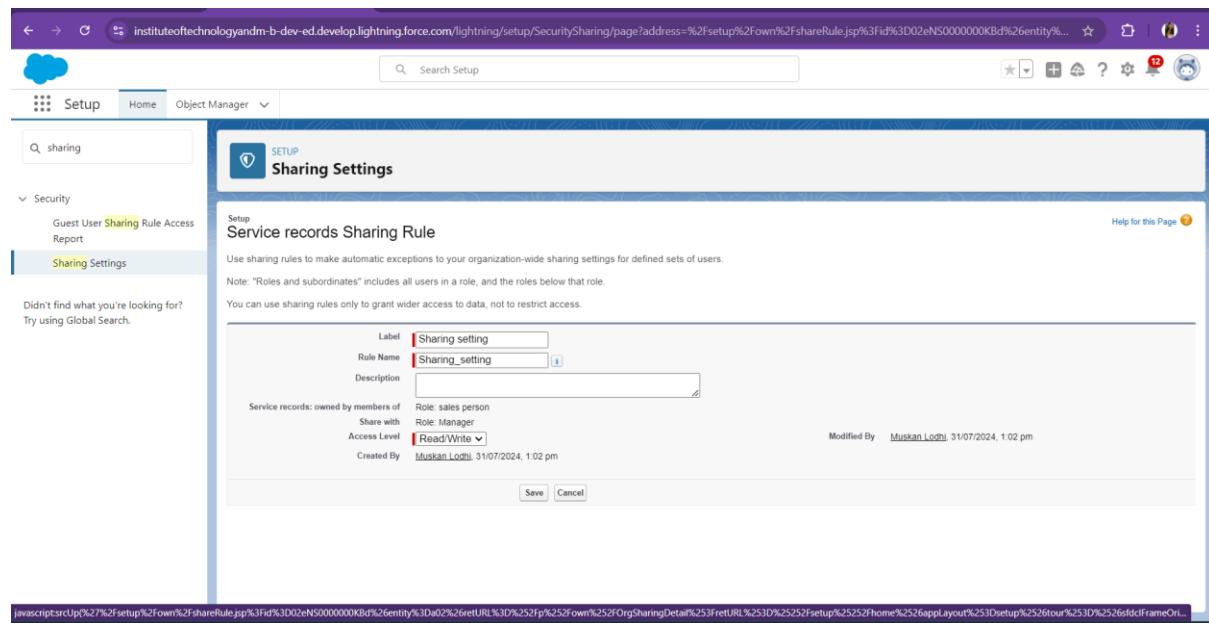


Task 11: Sharing Setting

Salesforce allows you to configure sharing settings to control how records are accessed and shared within your organization. These settings are crucial for maintaining data security and privacy.

Creating Sharing settings

1. Go to setup >> type users in quick find box >> select Sharing Settings >> click Edit.
2. Change the OWD setting of the Service records Object to private as shown in fig.
3. Click on save and refresh.
4. Scroll down a bit, Click new on Service records sharing Rules.
5. Give the Label name as “ Sharing setting”
6. Rule name is auto populated.
7. In step 3 : Select which records to be shared, members of “ Roles ” >> “ Sales person”
8. In step 4: share with, select “ Roles ” >> “ Manager ”
In step 5 : Change the access level to “ Read / write ”.
9. Click on save



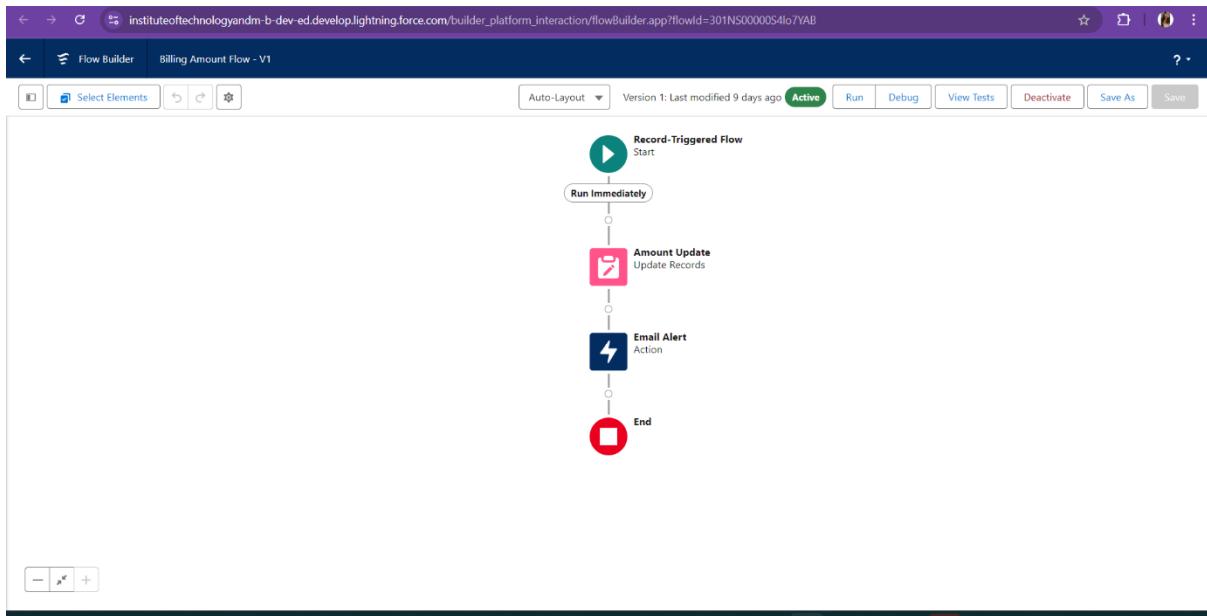
Task 12: Flows

In Salesforce, a flow is a powerful tool that allows you to automate business processes, collect and update data, and guide users through a series of screens or steps. Flows are built using a visual interface and can be created without any coding knowledge.

Create a Flow

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 and Click on Create.
3. Select the Object as “Billing details and feedback” in the Drop down list.
4. Select the Trigger Flow when: “A record is Created or Updated”.
5. Select the Optimize the flow for: “Actions and Related Records” and Click on Done.
6. Under the Record-triggered Flow Click on “+” Symbol and In the Drop down List select the “Update records Element”.
7. Give the Label Name : Amount Update
8. Api name : is auto populated
9. Set a filter condition : All Conditions are met(AND)
10. Field : Payment_Status__c
11. Operator : Equals
12. Value : Completed
13. And Set Field Values for the Billing details and feedback Record
14. Field : Payment_Paid__c
15. Value : {!\$Record.Service_records__r.Appointment__r.Service_Amount__c}
16. Click On Done.
17. Before creating another Element. Create a New Resource form Toolbox form top left.
18. Click on the New Resource, And select Variable.
19. Select the resource type as text template.
20. Enter the API name as “ alert”.
21. Change the view as Rich Text ? View to Plain Text.
22. In body field paste the syntax that given below. Dear
 {!\$Record.Service_records__r.Appointment__r.Customer_Name__r.Name},
23. I hope this message finds you well. I wanted to take a moment to express my sincere gratitude for your recent payment for the services provided by our garage management team. Your prompt payment is greatly appreciated, and it helps us continue to provide top-notch services to you and all our valued customers.
24. Amount paid : {!\$Record.Payment_Paid__c}
25. Thank you for Coming .
26. Click done.
27. Now Click on Add Element , select Action.
28. Their action bar will be opened in that search for “ send email ” and click on it.
29. Give the label name as “ Email Alert”
30. API name will be auto populated.
31. Enable the body in set input values for the selected action.
32. Select the text template that created , Body : {!alert}

33. Include recipient address list select the email form the record.
34. RecipientAddressList:
{!\$Record.Service_records__r.Appointment__r.Customer_Name__r.Gmail__c} 32. Include subject as “ Thank You for Your Payment - Garage Management”.
35. Click done.
36. Click on save. Give the Flow label , Flow Api name will be autopopulated.
37. And click save, and click on activate.



Task 13: Apex Trigger

Apex can be invoked by using triggers. Apex triggers enable you to perform custom actions before or after changes to Salesforce records, such as insertions, updates, or deletions.

A trigger is Apex code that executes before or after the following types of operations:

- insert
- update
- delete
- merge
- upsert
- undelete

For example, you can have a trigger run before an object's records are inserted into the database, after records have been deleted, or even after a record is restored from the Recycle Bin.

You can define triggers for top-level standard objects that support triggers, such as a Contact or an Account, some standard child objects, such as a CaseComment, and custom objects. To define a trigger, from the object management settings for the object whose triggers you want to access, go to Triggers.

Apex handler

1. UseCase : This use case works for Amount Distribution for each Service the customer selected for there Vehicle.
2. Login to the respective trailhead account and navigate to the gear icon in the top right corner.
3. Click on the Developer console. Now you will see a new console window.
4. In the toolbar, you can see FILE. Click on it and navigate to new and create New apex class.
5. Name the class as “AmountDistributionHandler ”.

Trigger Handler :

How to create a new trigger :

1. While still in the trailhead account, navigate to the gear icon in the top right corner.
2. Click on developer console and you will be navigated to a new console window.
3. Click on File menu in the tool bar, and click on new? Trigger.
4. Enter the trigger name and the object to be triggered.
5. Name : AmountDistribution
6. sObject : Appointment__c

Developer Console - Google Chrome

instituteoftechnologyandm-b-dev-ed.develop.my.salesforce.com/_ui/common/apex/debug/ApexCSIPage

File Edit Debug Test Workspace Help < >

AmountDistributionHandler.apxc * AmountDistribution.apxt *

Code Coverage: None API Version: 61 Go To

```
1 public class AmountDistributionHandler {  
2  
3  
4  
5 public static void amountDist(list<Appointment__c> listApp){  
6  
7     list<Service_records__c> serList = new list <Service_records__c>();  
8  
9  
10    for(Appointment__c app : listApp){  
11  
12        if(app.Maintenance_service__c == true && app.Repairs__c == true && app.Replacement_Parts__c == true){  
13            app.Service_Amount__c = 10000;  
14  
15        }  
16  
17        else if(app.Maintenance_service__c == true && app.Repairs__c == true){  
18            app.Service_Amount__c = 5000;  
19        }  
20    }  
21}
```

Logs Tests Checkpoints Query Editor View State Progress Problems 1

| User | Application | Operation | Time | Status | Read | Size |
|------|-------------|-----------|------|--------|------|------|
|------|-------------|-----------|------|--------|------|------|

Filter Click here to filter the log list

Task 14: Reports

Reports give you access to your Salesforce data. You can examine your Salesforce data in almost infinite combinations, display it in easy-to-understand formats, and share the resulting insights with others. Before building, reading, and sharing reports, review these reporting basics.

Create a report folder

1. Click on the app launcher and search for reports.
2. Click on the report tab, click on new folder.
3. Give the Folder label as “Garage Management Folder”, Folder unique name will be auto populated.
4. Click save.

The screenshot shows the Salesforce Reports section. On the left, there's a sidebar with categories like Reports, Folders, and Favorites. Under Reports, there are links for Recent, Created by Me, Private Reports, Public Reports, and All Reports. Under Folders, 'All Folders' is selected, showing links for Created by Me and Shared with Me. The main area displays a table of reports. One report, 'New Service Information Report', is listed under the 'Garage Management Folder'. The table columns include Name, Description, Folder, Created By, Created On, and Subscribed. A search bar at the top and bottom of the table allows for filtering and searching.

Sharing a report folder

The screenshot shows the 'Share folder' dialog box overlaid on the Salesforce Reports section. The dialog box has a header 'Share folder' and a note 'These sharing settings apply to all subfolders in this folder.' It has a 'Share With' section where 'Users' is selected from a dropdown. Below it is a 'Names' input field with a search bar and a 'View' button. A 'Share' button is present. Another section titled 'Who Can Access' shows 'Muskan Lodhi' under 'Users' and 'Manager Roles' under 'Manager Roles', both with dropdown menus for 'Manage' and 'View'. A 'Done' button at the bottom right of the dialog box is highlighted in blue.

Create Report Type

The screenshot shows the Salesforce Setup interface with the URL <https://institutetechnologyandm-b-dev-ed.lightning.force.com/lightning/setup/CustomReportTypes/page?address=%2F070NS0000032QCn>. The left sidebar is expanded, showing 'Feature Settings' and 'Analytics'. Under 'Analytics', 'Reports & Dashboards' is selected, which further branches into 'Access Policies', 'Historical Trending', 'Report Types' (which is highlighted), 'Reporting Snapshots', 'Reports and Dashboards', and 'Settings'. The main content area is titled 'Report Types' and shows a 'Customer Details (A)' section with a Venn diagram illustrating object relationships between Appointments (B), Service records (C), and Billing details and feedback (D). Below this is a 'Fields Available for Reports' section with a table mapping source fields to selected fields.

Create Report

The screenshot shows the Salesforce Lightning interface with the URL <https://institutetechnologyandm-b-dev-ed.lightning.force.com/lightning/r/Report/00ON500000RLI2AO/edit?queryScope=userFolders>. The top navigation bar includes 'Service', 'Home', 'Chatter', 'Accounts', 'Contacts', 'Cases', 'Reports', and 'Dashboards'. The 'Reports' tab is active. On the left, the 'Fields' sidebar shows 'Groups' (Rating for service, Payment Status) and 'Columns' (Customer Name, Appointment Name, Service Status, # Payment Paid). The main area displays a chart titled 'New Service information Report' showing 'Record Count' vs 'Rating for service'. Below the chart is a table with columns: Rating for service, Payment Status, Customer Name, Appointment Name, Service Status, and Payment Paid. The table data is as follows:

| Rating for service | Payment Status | Customer Name | Appointment Name | Service Status | Payment Paid |
|--------------------|----------------|----------------|------------------|----------------|--------------|
| 3 (2) | Pending (2) | kaushal Vrathe | app-002 | Completed | ₹555 |
| | | Harsh | app-009 | Completed | ₹657 |
| | | | | | ₹1,212 |
| Subtotal | | | | | ₹1,212 |
| 4 (5) | Pending (1) | Lareb rayeen | app-006 | Completed | ₹789 |
| | | | | | ₹789 |
| Subtotal | | | | | ₹568 |
| Completed (4) | veer roy | app-001 | | Completed | ₹568 |

Task 15: Dashboards

Dashboards help you visually understand changing business conditions so you can make decisions based on the real-time data you've gathered with reports. Use dashboards to help users identify trends, sort out quantities, and measure the impact of their activities. Before building, reading, and sharing dashboards, review these dashboard basics.

Create Dashboard Folder

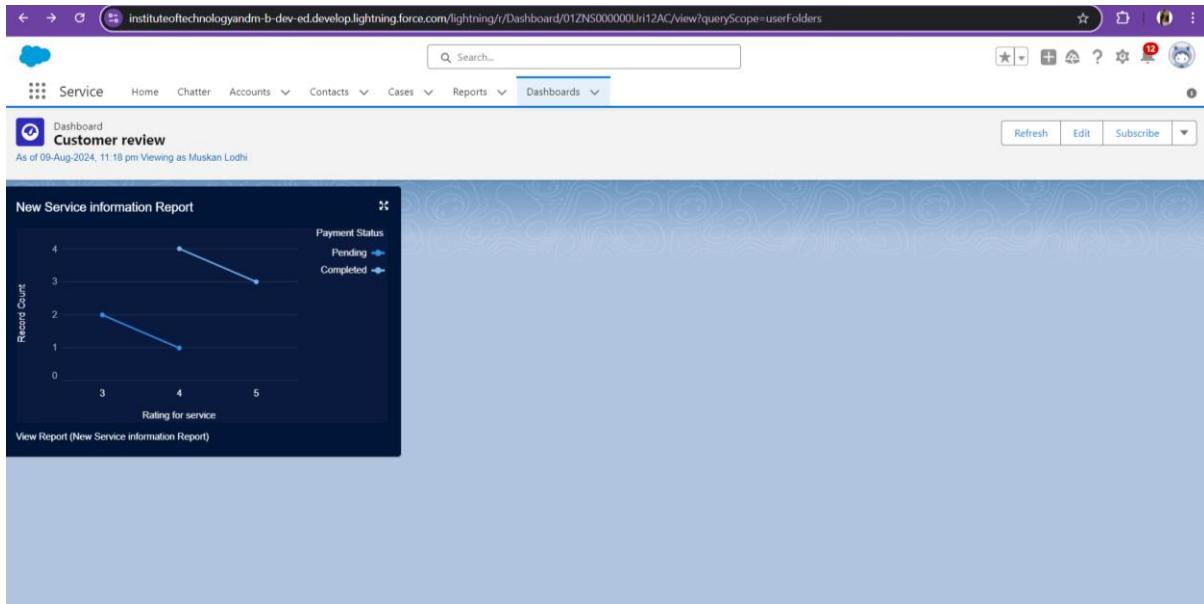
1. Click on the app launcher and search for dashboard.
2. Click on dashboard tab.
3. Click new folder, give the folder label as “ Service Rating dashboard”.
4. Folder unique name will be auto populated.
5. Click save.
6. Follow the same steps, from milestone 15, and activity 2, and provide the sharing settings for the folder that just created.

The screenshot shows the Salesforce Lightning interface. The top navigation bar has tabs for Home, Chatter, Accounts, Contacts, Cases, Reports, and Dashboards. The Dashboards tab is currently selected. Below the navigation bar, there's a search bar and some quick access icons. The main content area is titled 'Dashboards' and shows a list of dashboards under 'All Folders > Service Rating'. There is one item listed: 'Customer review' in the 'Service Rating' folder, created by Muskan Lodhi on 31/7/2024, 5:25 pm. On the left side, there's a sidebar with categories like DASHBOARDS, FOLDERS, and FAVORITES, with 'All Folders' currently selected.

Create Dashboard

1. Go to the app >> click on the Dashboards tabs.
2. Give a Name and select the folder that created, and click on create.
3. Select add component.
4. Select a Report and click on select.

5. Select the Line Chart. Change the theme.
6. Click Add then click on Save and then click on Done.
7. Preview is shown below.



Thank you