

# Project Executable Files

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This phase outlines the actual Salesforce configurations, data, and outcomes used and generated during the execution of your project: “A CRM Application for Public Transport Management System.” It ensures that all key project elements—objects, data, and output—are traceable and reusable for future reference or assessment. Where practical configurations and working modules of the project are documented for clarity, replication, and validation.

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## ◆ 1. Project Files


### Project Executable Files

The following project files were executed in the Salesforce Developer Org:


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 **Milestone 1: Developer Account Setup**

 **Milestone 2: Object Creation**


 **Milestone 3: Tab Creation**


 **Milestone 4: Lightning App Setup**

 **Milestone 5: Field Creation**

 **Milestone 6: Page Layouts**

 **Milestone 7: Validation Rules**

 **Milestone 8: Flow Setup**

 **Milestone 9: Apex Trigger**

 **Milestone 10: Reports**

 **Milestone 11: Dashboards**

 **Milestone 12: Final Review**

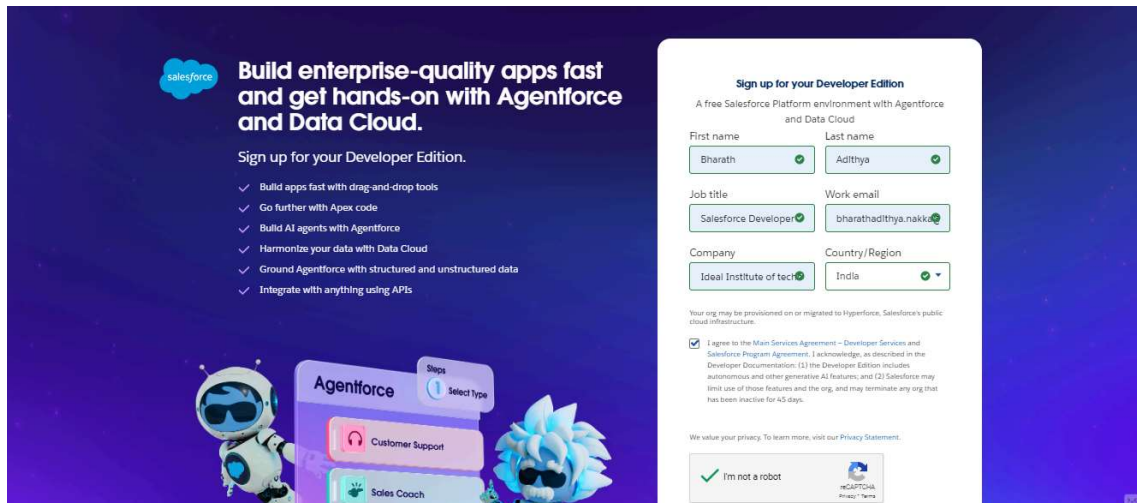
## List of Milestone Tasks with Supporting Screenshots and Descriptions

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### Milestone 1: Developer Account Setup

- Created and activated a Salesforce Developer Org.
  - Setup the base environment for CRM development.
  - Verified access to Object Manager, Flow Builder, and App Builder.
- 

## OUTPUT SCREENSHOT



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First name: Bharath Last name: Adithya

Job title: Salesforce Developer Work email: bharathadithya.nakka@gmail.com

Company: Ideal Institute of tech Country/Region: India

Your org may be provisioned on or migrated to Hyperforce, Salesforce's public cloud infrastructure.

☒ I agree to the Main Services Agreement – Developer Services and Salesforce Program Agreements. I acknowledge, as described in the Developer Documentation: (1) the Developer Edition includes autonomous and other generative AI features; and (2) Salesforce may limit use of those features and the org, and may terminate any org that has been inactive for 180 days.

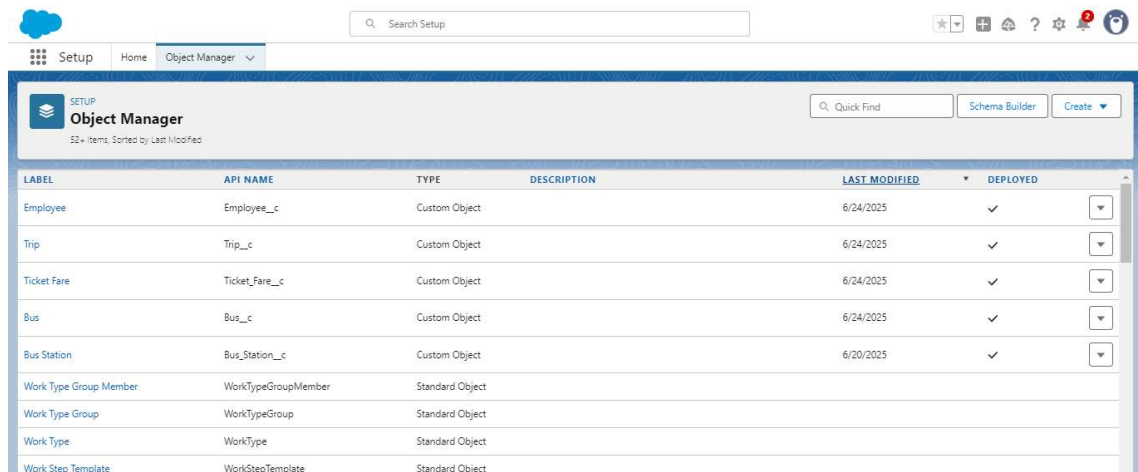
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## Milestone 2: Object Creation

- Created 5 custom objects:
  - Bus Station, Bus, Employee, Trip, and Ticket Fare.
- Established foundational schema for RTC data tracking.
- Configured relationships using lookup fields.

## OUTPUT SCREENSHOT



The screenshot displays the Salesforce Object Manager interface. At the top, there is a navigation bar with 'Setup', 'Home', and 'Object Manager' (selected). A search bar labeled 'Search Setup' is also present. Below the navigation bar, the 'Object Manager' section is titled with a sub-header 'Object Manager' and a note '52+ Items, Sorted by Last Modified'. To the right of this header are buttons for 'Quick Find', 'Schema Builder', and 'Create'. The main content area is a table with the following columns: LABEL, API NAME, TYPE, DESCRIPTION, LAST MODIFIED, and DEPLOYED. The table lists several objects, including five custom objects created for the project: Employee, Trip, Ticket Fare, Bus, and Bus Station. Each of these custom objects is marked as 'Deployed' with a checkmark. Below these are standard objects: Work Type Group Member, Work Type Group, Work Type, and Work Step Template.

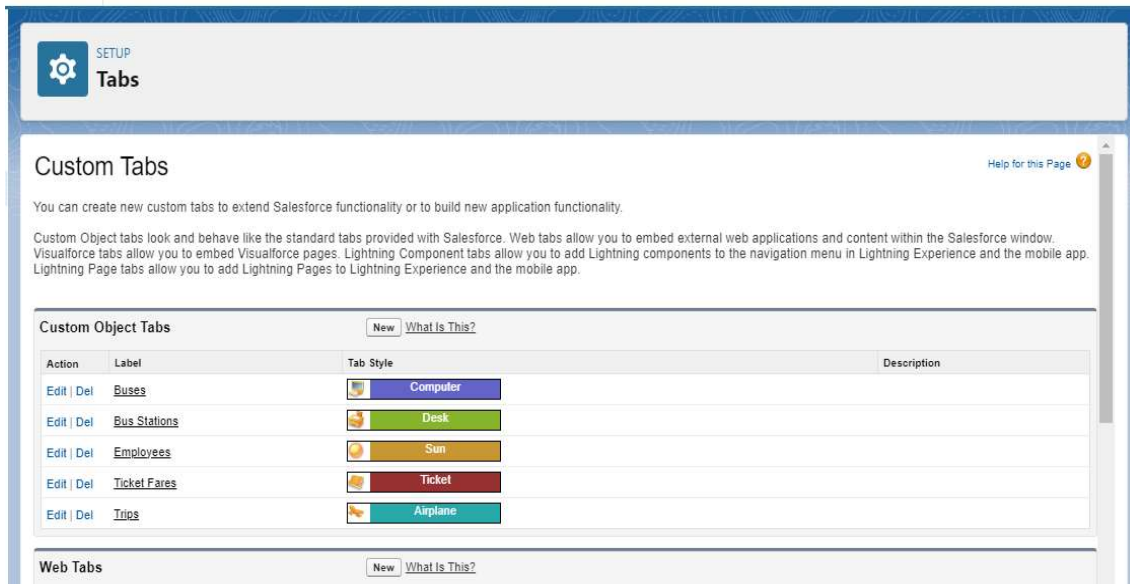
LABEL	API NAME	TYPE	DESCRIPTION	LAST MODIFIED	DEPLOYED
Employee	Employee__c	Custom Object		6/24/2025	✓
Trip	Trip__c	Custom Object		6/24/2025	✓
Ticket Fare	Ticket_Fare__c	Custom Object		6/24/2025	✓
Bus	Bus__c	Custom Object		6/24/2025	✓
Bus Station	Bus_Station__c	Custom Object		6/20/2025	✓
Work Type Group Member	WorkTypeGroupMember	Standard Object			
Work Type Group	WorkTypeGroup	Standard Object			
Work Type	WorkType	Standard Object			
Work Step Template	WorkStepTemplate	Standard Object			

## Milestone 3: Tab Creation

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- Created tabs for each custom object.
  - Enabled easy navigation and object access in the app.
  - Ensured users can create/view records from the UI.
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## OUTPUT SCREENSHOT



The screenshot shows the Salesforce Setup interface for Custom Tabs. The top navigation bar includes a gear icon and the text "SETUP Tabs". The main heading is "Custom Tabs", with a "Help for this Page" link. Below the heading, a paragraph explains that custom tabs can extend Salesforce functionality or build new application functionality. It further details that Custom Object tabs look like standard tabs, Web tabs allow embedding external web applications, Visualforce tabs allow embedding Visualforce pages, Lightning Component tabs allow adding Lightning components, and Lightning Page tabs allow adding Lightning Pages.

The "Custom Object Tabs" section features a table with columns for Action, Label, Tab Style, and Description. The table lists five tabs: Buses (Computer style), Bus Stations (Desk style), Employees (Sun style), Ticket Fares (Ticket style), and Trips (Airplane style). Each row includes "Edit" and "Del" links. Below this table is a "Web Tabs" section with a "New" button and a "What Is This?" link.

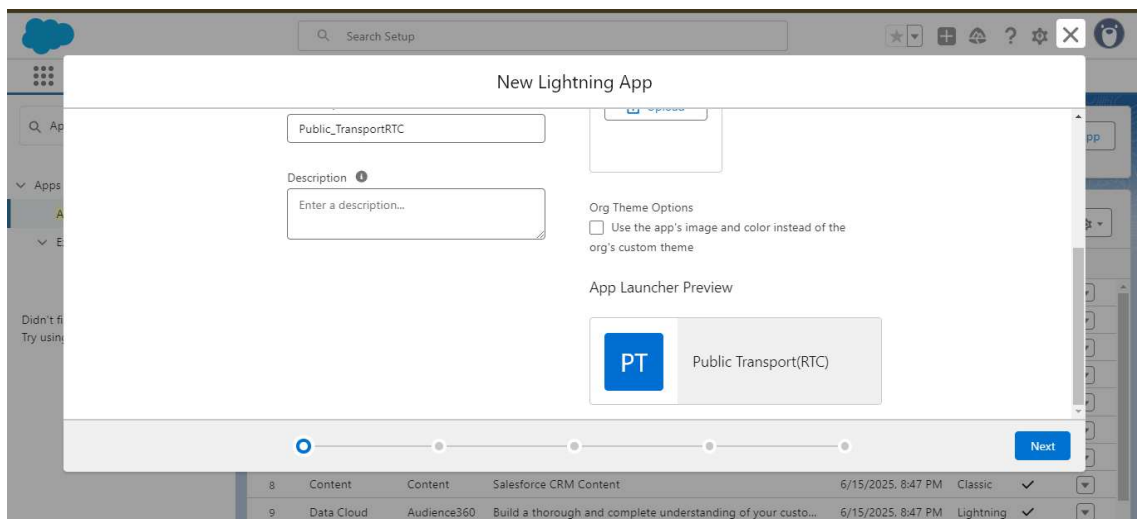
Action	Label	Tab Style	Description
<a href="#">Edit</a>   <a href="#">Del</a>	<a href="#">Buses</a>	 Computer	
<a href="#">Edit</a>   <a href="#">Del</a>	<a href="#">Bus Stations</a>	 Desk	
<a href="#">Edit</a>   <a href="#">Del</a>	<a href="#">Employees</a>	 Sun	
<a href="#">Edit</a>   <a href="#">Del</a>	<a href="#">Ticket Fares</a>	 Ticket	
<a href="#">Edit</a>   <a href="#">Del</a>	<a href="#">Trips</a>	 Airplane	

## Milestone 4: Lightning App Setup

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- Built a custom Lightning App named "**Public Transport RTC**".
  - Added relevant tabs to centralize operations.
  - Simplified user workflow by grouping features.
- 

### OUTPUT SCREENSHOT



## Milestone 5: Field Creation

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- Added custom and formula fields like:
  - Role (Picklist), Age, Experience, Fare, Passenger Count.
  - Implemented: **Total Fare = Fare × Passenger Count** formula.
- Linked Driver and Conductor to Trip via lookup fields.

### Milestone 5- Fields

<u>Object</u>	<u>Field Name</u>	<u>Data Type</u>
<u>Bus Station</u>	<u>Bus Station Name(Standard)</u>	<u>Text</u>
	<u>Bus Stop Category</u>	<u>Picklist(Unmanaged Bus Stop, Managed Bus Stop)</u>
	<u>Last Updated</u>	<u>Formula(Date)</u>
	<u>Amenities</u>	<u>Picklist(Multi-select)</u>
	<u>City</u>	<u>Text(40)</u>
	<u>Street</u>	<u>TextArea</u>
	<u>State/Province</u>	<u>Text(25)</u>
	<u>Zip/PostalCode</u>	<u>Text(10)</u>
	<u>Shelter Available</u>	<u>Checkbox</u>
	<u>Bench</u>	<u>Checkbox</u>

<u>Bus</u>	<u>Bus Registration No</u> <u>(Standard)</u>	<u>Text</u>
	<u>Bus Station Name</u>	<u>Lookup(Bus Station)</u>
	<u>Capacity</u>	<u>Number(4.0)</u>
	<u>Category</u>	<u>Picklist</u>
	<u>Model</u>	<u>Picklist(Dependent on Category)</u>
<u>Trip</u>	<u>Trip No(Standard)</u>	<u>Text</u>
	<u>Trip Date</u>	<u>Date</u>
	<u>Bus No</u>	<u>Lookup(Bus)</u>
	<u>Route Name</u>	<u>Lookup(Ticket Fare)</u>
	<u>Arrival Time</u>	<u>Picklist</u>
	<u>Departure Time</u>	<u>Picklist</u>
	<u>Bus Starting</u> <u>Terminal</u>	<u>Text</u>
	<u>Destination</u> <u>Terminal</u>	<u>Text</u>
	<u>Driver Id</u>	<u>Lookup(Employee)</u>
	<u>Driver</u>	<u>Formula</u>
	<u>Conductor Id</u>	<u>Lookup(Employee)</u>
	<u>Conductor</u>	<u>Formula</u>
	<u>Estimated Travel</u> <u>Time</u>	<u>Number</u>
	<u>Frequency Per Day</u>	<u>Number(2.0)</u>
	<u>No. of Stops</u>	<u>Number(2.0)</u>
	<u>Passenger Count</u>	<u>Number(4.0)</u>

	<u>Ticket Fare</u>	<u>Currency(16.2)</u>
	<u>Total Amount</u>	<u>Formula</u>
<u>Ticket Fare</u>	<u>Route Name(Standard)</u>	<u>Text</u>
	<u>Bus Model</u>	<u>Picklist</u>
	<u>Ticket Fare</u>	<u>Currency(10.2)</u>
<u>Employee</u>	<u>Employee Id(Standard)</u>	<u>Text</u>
	<u>Bus Station Name</u>	<u>Lookup(Bus Station)</u>
	<u>Employee Name</u>	<u>Text</u>
	<u>Role</u>	<u>Picklist</u>
	<u>Date of Birth</u>	<u>Date</u>
	<u>Age</u>	<u>Formula(Number)</u>
	<u>Work Place</u>	<u>Text</u>
	<u>Salary</u>	<u>Currency(18.0)</u>
	<u>Phone</u>	<u>Phone</u>
	<u>Date of Joining</u>	<u>Date</u>
	<u>Date of Retirement</u>	<u>Formula(Date)</u>
	<u>Experience</u>	<u>Formula(Number)</u>
	<u>Street</u>	<u>TextArea</u>
	<u>City</u>	<u>Text</u>
	<u>State/Province</u>	<u>Text</u>
	<u>Country</u>	<u>Text</u>
	<u>Zip/PostalCode</u>	<u>Text</u>



# OUTPUT SCREENSHOT

Setup

Home

Object Manager

Search Setup

SETUP > OBJECT MANAGER

Bus

Details

Fields & Relationships

Page Layouts

Lightning Record Pages

Buttons, Links, and Actions

Compact Layouts

Field Sets

Object Limits

Record Types

Related Lookup Filters

Search Layouts

List View Button Layout

Fields & Relationships

8 Items, Sorted by Field Label

Q, Quick Find

New

Deleted Fields

Field Dependencies

Set History Track

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Bus Registration No	Name	Text(80)		✓
Bus Station Name	Bus_Station_Name__c	Lookup(Bus Station)		✓
Capacity	Capacity__c	Number(4, 0)		
Category	Category__c	Picklist		
Created By	CreatedById	Lookup(User)		
Last Modified By	LastModifiedById	Lookup(User)		
Model	Model__c	Picklist	Category	
Owner	OwnerId	Lookup(User/Group)		✓

Setup

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Restriction Rules

Scoping Rules

Fields & Relationships

14 Items, Sorted by Field Label

Q, Quick Find

New

Deleted Fields

Field Dependencies

Set History Track

Bus Station Name	Name	Text(80)		✓
Bus Stop Category	Bus_Stop_Category__c	Picklist		
City	City__c	Text(40)		
Created By	CreatedById	Lookup(User)		
Last Modified By	LastModifiedById	Lookup(User)		
Last Updated	Last_Updated__c	Formula (Date)		
Location	Location__c	Text(40)		
Owner	OwnerId	Lookup(User/Group)		✓
Shelter available	Shelter_available__c	Checkbox		
State/Province	State_Province__c	Text(25)		

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Restriction Rules

Fields & Relationships

20 Items, Sorted by Field Label

Quick Find

New

Deleted Fields

Field Dependencies

Set History Tr

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Date of Retirement	Date_of_Retirement__c	Formula (Date)		
Employee Id	Name	Text(80)		✓
Employee Name	Employee_Name__c	Text(80)		
Experience	Experience__c	Formula (Number)		
Last Modified By	LastModifiedById	Lookup(User)		
Owner	OwnerId	Lookup(User/Group)		✓
Phone	Phone__c	Phone		
Role	Role__c	Picklist		
Salary	Salary__c	Currency(18, 0)		
State/Province	State_Province__c	Text(18)		

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Restriction Rules

Scoping Rules

Fields & Relationships

21 Items, Sorted by Field Label

Quick Find

New

Deleted Fields

Field Dependencies

Set History Tr

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Arrival Time	Arrival_Time__c	Picklist		
Bus No	Bus_No__c	Lookup(Bus)		✓
Bus Starting Terminal	Bus_Starting_Terminal__c	Text(18)		
Conductor Id	Conductor_Id__c	Lookup(Employee)		✓
Conductor Name	Conductor_Name__c	Formula (Text)		
Created By	CreatedBy	Lookup(User)		
Departure Time	Departure_Time__c	Picklist		
Destination Terminal	Destination_Terminal__c	Text(18)		
Driver Id	Driver_Id__c	Lookup(Employee)		✓

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Fields & Relationships

6 Items, Sorted by Field Label

Quick Find

New

Deleted Fields

Field Dependencies

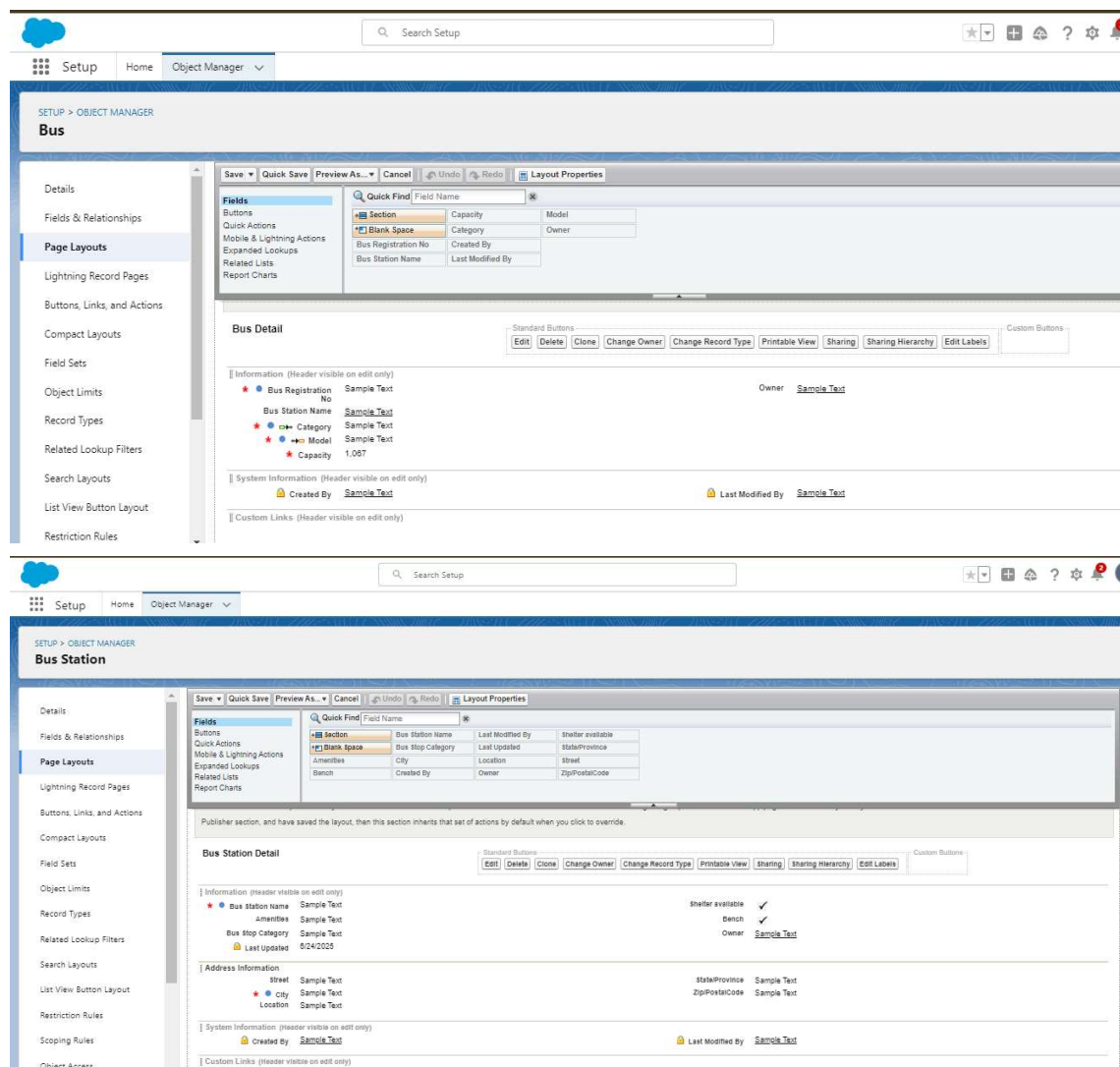
Set History Tracki

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Bus Model	Bus_Model__c	Picklist		
Created By	CreatedById	Lookup(User)		
Last Modified By	LastModifiedById	Lookup(User)		
Owner	OwnerId	Lookup(User/Group)		✓
Route Name	Name	Text(80)		✓
Ticket Fare	Ticket_Fare__c	Currency(10, 2)		

## Milestone 6: Page Layouts

- Customized page layouts per object.
- Grouped fields logically for usability.
- Enhanced record readability and data entry experience.

## OUTPUT SCREENSHOT



The image displays two screenshots of the Salesforce Setup interface, specifically the 'Object Manager' section, illustrating the configuration of page layouts for the 'Bus' and 'Bus Station' objects.

**Top Screenshot: Bus Object Page Layout**

The top screenshot shows the 'Bus' object page layout configuration. The left sidebar lists various setup options, with 'Page Layouts' selected. The main area displays the 'Bus Detail' page layout, which includes a header section with 'Information (Header visible on edit only)' and a body section with 'System Information (Header visible on edit only)'. The layout is configured with the following fields:

- Information (Header visible on edit only):** Bus Registration No, Sample Text, Owner, Sample Text.
- System Information (Header visible on edit only):** Created By, Sample Text, Last Modified By, Sample Text.

**Bottom Screenshot: Bus Station Object Page Layout**

The bottom screenshot shows the 'Bus Station' object page layout configuration. The left sidebar lists various setup options, with 'Page Layouts' selected. The main area displays the 'Bus Station Detail' page layout, which includes a header section with 'Information (Header visible on edit only)' and a body section with 'Address Information'. The layout is configured with the following fields:

- Information (Header visible on edit only):** Bus Station Name, Sample Text, Shelter available, ✓, Bench, ✓, Owner, Sample Text.
- Address Information:** Street, Sample Text, State/Province, Sample Text, City, Sample Text, Zip/Postal Code, Sample Text, Location, Sample Text.

SetupHomeObject Manager

SETUP > OBJECT MANAGER

Employee

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Scoping Rules

Object Access

SaveQuick SavePreview As...CancelUndoRedoLayout Properties

Quick FindField Name

Fields

Buttons

Quick Actions

Mobile & Lightning Actions

Expanded Lookups

Related Lists

Report Charts

Blank Space

City

Country

Created By

Bus Station Name

Date of Joining

Date of Retirement

Employee Id

Date of Birth

Experience

Last Modified By

Owner

Employee Name

Phone

Role

Salary

State/Province

Street

Work Place

Zip/Postal Code

Employee Detail

EditDeleteCloneChange OwnerChange Record TypePrintable ViewSharingSharing HierarchyEdit LabelsCustom Buttons

Information (header visible on edit only)

Employee Id

Sample Text

Employee Name

Sample Text

Bus Station Name

Sample Text

Age

123.45

Experience

547.52

Work Place

Sample Text

Role

Sample Text

Date of Joining

0/24/2025

Date of Retirement

0/24/2025

Owner

Sample Text

Personal Details

Date of Birth

0/24/2025

Phone

1-415-555-1212

Age

636.24

Address

Street

Sample Text

City

Sample Text

State/Province

Sample Text

Country

Sample Text

Zip/Postal Code

Sample Text

System Information (header visible on edit only)

Created By

Sample Text

Last Modified By

Sample Text

English (United States)

English (India) keyboard

To switch input methods, press Windows+Space.

SetupHomeObject Manager

SETUP > OBJECT MANAGER

Trip

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SaveQuick SavePreview As...CancelUndoRedoLayout Properties

Quick FindField Name

Fields

Buttons

Quick Actions

Mobile & Lightning Actions

Expanded Lookups

Related Lists

Report Charts

Blank Space

Bus Starting Term...

Departure Time

Estimated Travel ...

Owner

Total Amount

Conductor Id

Destination Terminal

Frequency Per Day

Passenger Count

Trip Date

Arrival Time

Conductor Name

Driver Id

Last Modified By

Route Name

Trip No

Bus No

Created By

Driver Name

No. of Stops

Ticket Fare

Trip Detail

EditDeleteCloneChange OwnerChange Record TypePrintable ViewSharingSharing HierarchyEdit LabelsCustom Buttons

Information (header visible on edit only)

Trip No

Sample Text

Trip Date

0/24/2025

Bus No

Sample Text

Driver Id

Sample Text

Driver Name

Sample Text

Conductor Id

Sample Text

Conductor Name

Sample Text

Owner

Sample Text

Bus Schedule

Route Name

Sample Text

Bus Starting Terminal

Sample Text

Departure Time

Sample Text

No. of Stops

64

Estimated Travel Time

53.353

Destination Terminal

Sample Text

Arrival Time

Sample Text

Frequency Per Day

64

Passenger Information

Passenger Count

5.293

Ticket Fare

\$123.45

Total Amount

\$123.45

System Information (header visible on edit only)

SetupHomeObject Manager

SETUP > OBJECT MANAGER

Ticket Fare

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Object Access

SaveQuick SavePreview As...CancelUndoRedoLayout Properties

Quick FindField Name

Fields

Buttons

Quick Actions

Mobile & Lightning Actions

Expanded Lookups

Related Lists

Report Charts

Blank Space

Last Modified By

Owner

Route Name

Bus Model

Created By

Ticket Fare

Ticket Fare Detail

EditDeleteCloneChange OwnerChange Record TypePrintable ViewSharingSharing HierarchyEdit LabelsCustom Buttons

Information (header visible on edit only)

Route Name

Sample Text

Ticket Fare

\$123.45

Bus Model

Sample Text

Owner

Sample Text

System Information (header visible on edit only)

Created By

Sample Text

Last Modified By

Sample Text

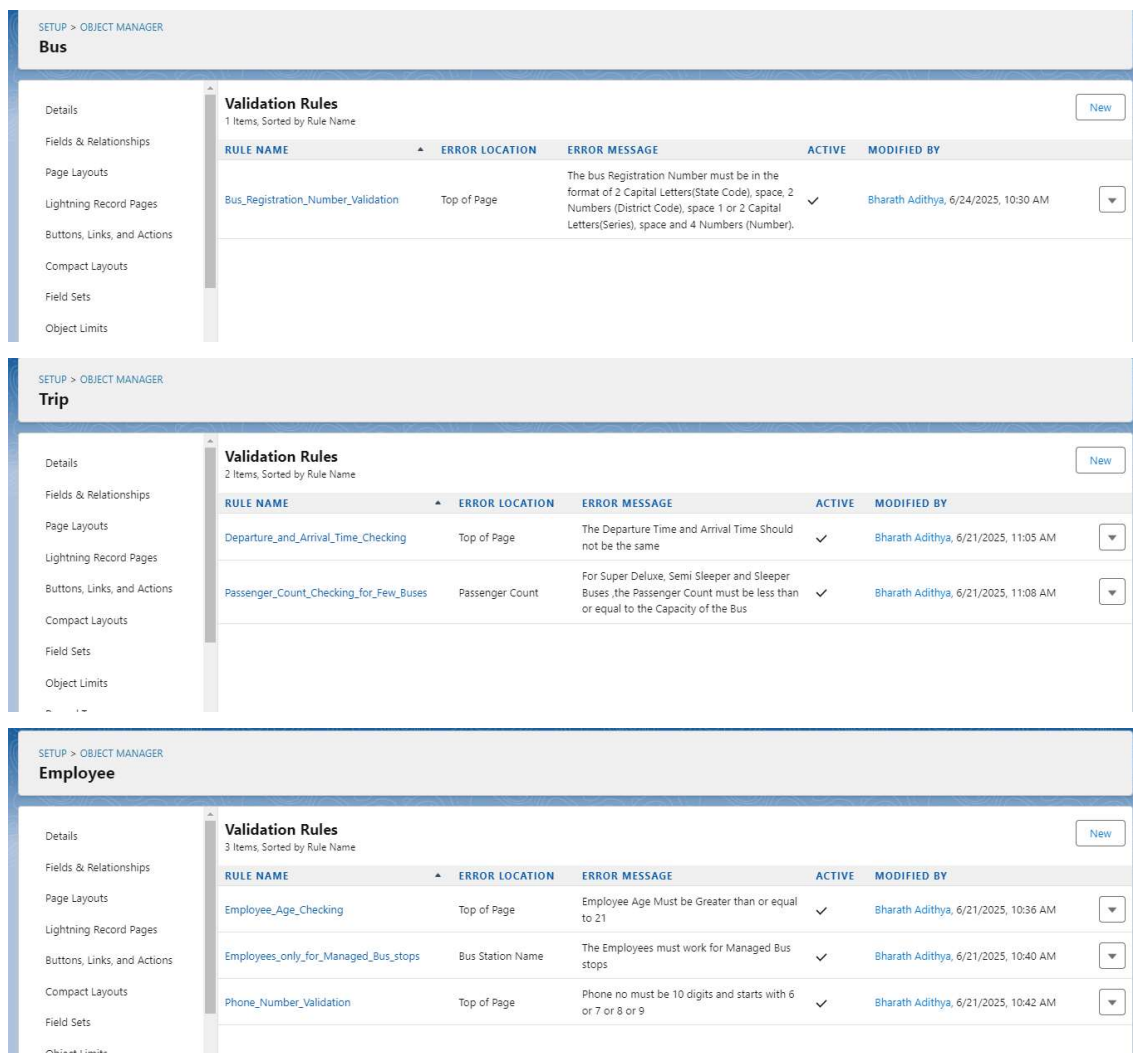
Custom Links (header visible on edit only)

## Milestone 7: Validation Rules

Enforced data quality with validations like:

- Age  $\geq 21$ , correct phone number format, required fields.
- Prevented invalid inputs and ensured system reliability.

## OUTPUT SCREENSHOT



The screenshots show the 'Validation Rules' configuration interface for three different objects: Bus, Trip, and Employee. Each interface includes a sidebar with navigation options and a main table of validation rules.

**Bus**

Validation Rules  
1 Items, Sorted by Rule Name

RULE NAME	ERROR LOCATION	ERROR MESSAGE	ACTIVE	MODIFIED BY
Bus_Registration_Number_Validation	Top of Page	The bus Registration Number must be in the format of 2 Capital Letters(State Code), space, 2 Numbers (District Code), space 1 or 2 Capital Letters(Series), space and 4 Numbers (Number).	✓	Bharath Adithya, 6/24/2025, 10:30 AM

**Trip**

Validation Rules  
2 Items, Sorted by Rule Name

RULE NAME	ERROR LOCATION	ERROR MESSAGE	ACTIVE	MODIFIED BY
Departure_and_Arrival_Time_Checking	Top of Page	The Departure Time and Arrival Time Should not be the same	✓	Bharath Adithya, 6/21/2025, 11:05 AM
Passenger_Count_Checking_for_Few_Buses	Passenger Count	For Super Deluxe, Semi Sleeper and Sleeper Buses ,the Passenger Count must be less than or equal to the Capacity of the Bus	✓	Bharath Adithya, 6/21/2025, 11:08 AM

**Employee**

Validation Rules  
3 Items, Sorted by Rule Name

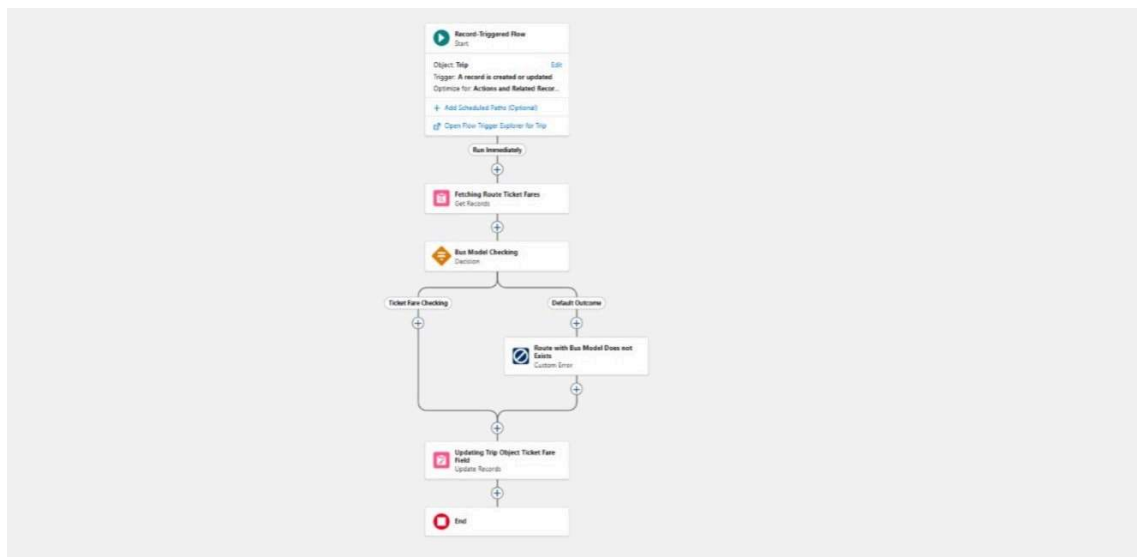
RULE NAME	ERROR LOCATION	ERROR MESSAGE	ACTIVE	MODIFIED BY
Employee_Age_Checking	Top of Page	Employee Age Must be Greater than or equal to 21	✓	Bharath Adithya, 6/21/2025, 10:36 AM
Employees_only_for_Managed_Bus_stops	Bus Station Name	The Employees must work for Managed Bus stops	✓	Bharath Adithya, 6/21/2025, 10:40 AM
Phone_Number_Validation	Top of Page	Phone no must be 10 digits and starts with 6 or 7 or 8 or 9	✓	Bharath Adithya, 6/21/2025, 10:42 AM

## Milestone 8: Flow Setup

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- Designed a **record-triggered flow**:
    - Automatically fetches fare based on route + model.
  - Improved automation and reduced manual input errors.
- 

### OUTPUT SCREENSHOT

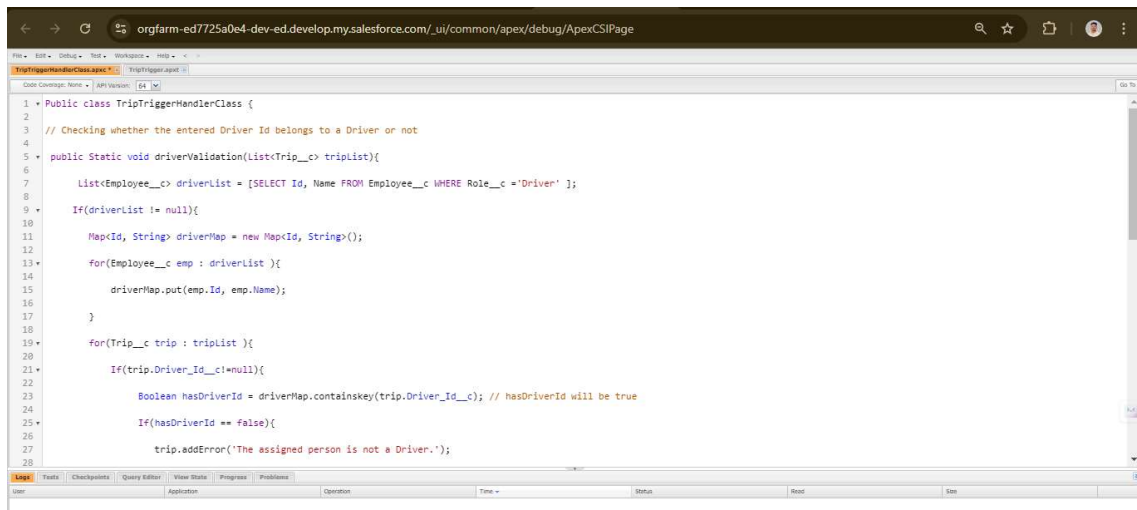


## Milestone 9: Apex Trigger

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- Developed a trigger to validate:
    - Only users with role “Driver” can be added as Driver.
    - Only “Conductor” can be added as Conductor.
  - Ensured business logic is enforced at data level.
- 

## OUTPUT SCREENSHOT



```
1 • Public class TripTriggerHandlerClass {
2
3   // Checking whether the entered Driver Id belongs to a Driver or not
4
5   public static void driverValidation(List<Trip__c> tripList){
6
7       List<Employee__c> driverList = [SELECT Id, Name FROM Employee__c WHERE Role__c = 'Driver' ];
8
9       If(driverList != null){
10
11           Map<Id, String> driverMap = new Map<Id, String>();
12
13           for(Employee__c emp : driverList ){
14
15               driverMap.put(emp.Id, emp.Name);
16
17           }
18
19           for(Trip__c trip : tripList){
20
21               If(trip.Driver_Id__c != null){
22
23                   Boolean hasDriverId = driverMap.containsKey(trip.Driver_Id__c); // hasDriverId will be true
24
25                   If(hasDriverId == false){
26
27                       trip.addError('The assigned person is not a Driver.');

The screenshot shows the Salesforce Apex IDE interface. The top bar displays the URL: orgfarm-ed7725a0e4-dev-ed.develop.my.salesforce.com/_ui/common/apex/debug/ApexCSIPage. The main editor area shows the code for the TripTriggerHandlerClass. The code is as follows:



```
1 • Public class TripTriggerHandlerClass {
2
3   // Checking whether the entered Driver Id belongs to a Driver or not
4
5   public static void driverValidation(List<Trip__c> tripList){
6
7       List<Employee__c> driverList = [SELECT Id, Name FROM Employee__c WHERE Role__c = 'Driver' ];
8
9       If(driverList != null){
10
11           Map<Id, String> driverMap = new Map<Id, String>();
12
13           for(Employee__c emp : driverList ){
14
15               driverMap.put(emp.Id, emp.Name);
16
17           }
18
19           for(Trip__c trip : tripList){
20
21               If(trip.Driver_Id__c != null){
22
23                   Boolean hasDriverId = driverMap.containsKey(trip.Driver_Id__c); // hasDriverId will be true
24
25                   If(hasDriverId == false){
26
27                       trip.addError('The assigned person is not a Driver.');

The bottom of the IDE shows a table with columns: User, Application, Operation, Time, Status, Read, and Set. The table is currently empty.


```


```

```
orgfarm-ed7725a0e4-dev-ed.develop.my.salesforce.com/_ui/common/apex/debug/ApexCSIPage

TripTriggerHandlerClass.apex
TripTrigger.apex
Code Coverage: None | API Version: 64

38 // Checking whether the entered conductor Id belongs to a Conductor or not
39
40 public Static void conductorValidation(List<Trip__c> tripList){
41
42     List<Employee__c> conductorList = [SELECT Id, Name FROM Employee__c WHERE Role__c = 'Conductor' ];
43
44
45
46
47     Map<Id, String> conductorMap = new Map<Id, String>();
48
49     for(Employee__c emp : conductorList){
50
51         conductorMap.put(emp.Id, emp.Name);
52
53     }
54
55     for(Trip__c trip : tripList){
56
57         If(trip.Conductor_Id__c!=null){
58
59             Boolean hasConductorId = conductorMap.containsKey(trip.Conductor_Id__c); // hasConductorId will be true
60
61             If(hasConductorId == false){
62
63                 trip.addError('The assigned person is not a Conductor.');
```

```
orgfarm-ed7725a0e4-dev-ed.develop.my.salesforce.com/_ui/common/apex/debug/ApexCSIPage

TripTriggerHandlerClass.apex
TripTrigger.apex
Code Coverage: None | API Version: 64

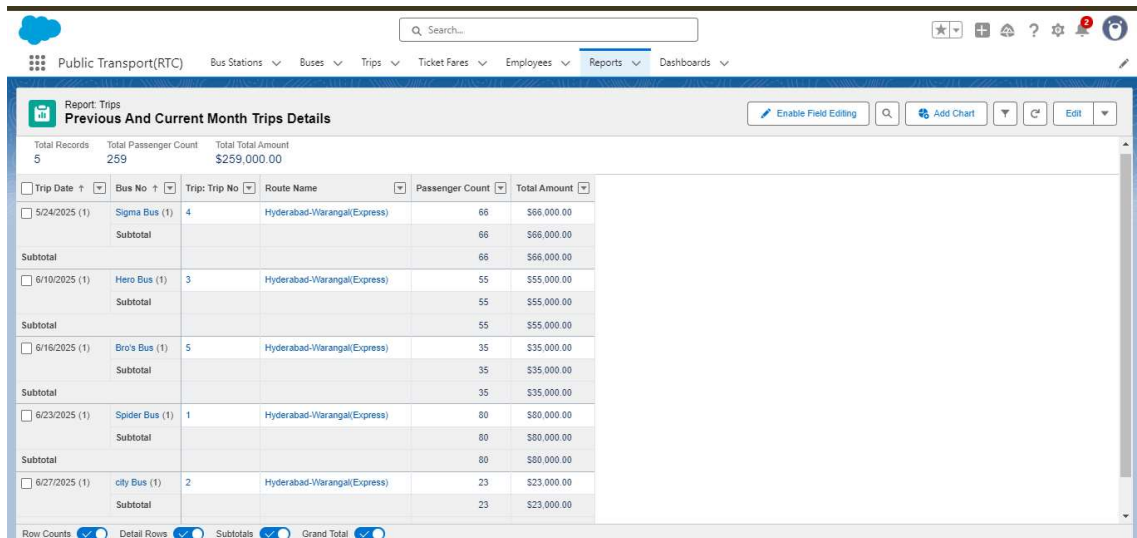
1 trigger TripTrigger on Trip__c (before insert, before update) {
2
3
4
5     if(trigger.isBefore){
6
7         if(trigger.isInsert || trigger.isUpdate){
8
9             // Validating the Conductor Id in Trip is really a Conductor or not
10
11             TripTriggerHandlerClass.driverValidation(trigger.new);
12
13
14             // Validating the Conductor Id in Trip is really a Conductor or not
15
16             TripTriggerHandlerClass.conductorValidation(trigger.new);
17
18         }
19     }
20 }
21
22
23 }
```



## Milestone 10: Reports

- Created reports for:
  - Employees per station, monthly revenue, trip counts.
- Used grouping, filters, and field summaries.
- Enabled data-driven decision-making.

## OUTPUT SCREENSHOT



Report: Trips  
Previous And Current Month Trips Details

Enable Field Editing | Add Chart | Edit

Total Records: 5 | Total Passenger Count: 259 | Total Total Amount: \$259,000.00

Trip Date	Bus No	Trip: Trip No	Route Name	Passenger Count	Total Amount
5/24/2025 (1)	Sigma Bus (1)	4	Hyderabad-Warangal(Express)	66	\$66,000.00
	Subtotal			66	\$66,000.00
	Subtotal			66	\$66,000.00
6/10/2025 (1)	Hero Bus (1)	3	Hyderabad-Warangal(Express)	55	\$55,000.00
	Subtotal			55	\$55,000.00
	Subtotal			55	\$55,000.00
6/16/2025 (1)	Bro's Bus (1)	5	Hyderabad-Warangal(Express)	35	\$35,000.00
	Subtotal			35	\$35,000.00
	Subtotal			35	\$35,000.00
6/23/2025 (1)	Spider Bus (1)	1	Hyderabad-Warangal(Express)	80	\$80,000.00
	Subtotal			80	\$80,000.00
	Subtotal			80	\$80,000.00
6/27/2025 (1)	city Bus (1)	2	Hyderabad-Warangal(Express)	23	\$23,000.00
	Subtotal			23	\$23,000.00

Row Counts: ☒ Detail Rows: ☒ Subtotals: ☒ Grand Total: ☒

Public Transport(RTC) Bus Stations Buses Trips Ticket Fares Employees Reports Dashboards

Search...

Report: Employees  
Employees By Bus Station

Enable Field Editing Add Chart Edit

Total Records: 17

Bus Station Name ↑	Employee: Employee Id	Employee Name	Role
Central Bus Station (1)	1	Hero	Driver
Subtotal			
Dwaraka Bus Station Complex (4)	2	Hemanth	Driver
	3	RK	Driver
	4	Bunny	Driver
	5	Tahir	Driver
Subtotal			
Kakinada APSRTC Bus Station (5)	6	praveen	Driver
	7	Gangadhar	Driver
	8	sai	Driver
	17	mahesh	Conductor
	9	prem	Conductor
Subtotal			
Simhachalam Bus Station (7)	10	Bharath	Conductor
	11	Bill	Conductor
	12	jathin	Conductor
	13	sindhu	Conductor
	14	Tanvi	Conductor
	15	latika	Conductor

Row Counts Detail Rows Subtotals Grand Total

Public Transport(RTC) Bus Stations Buses Trips Ticket Fares Employees Reports Dashboards

Search...

Report: Employees  
Drivers And Conductors Information

Enable Field Editing Add Chart Edit

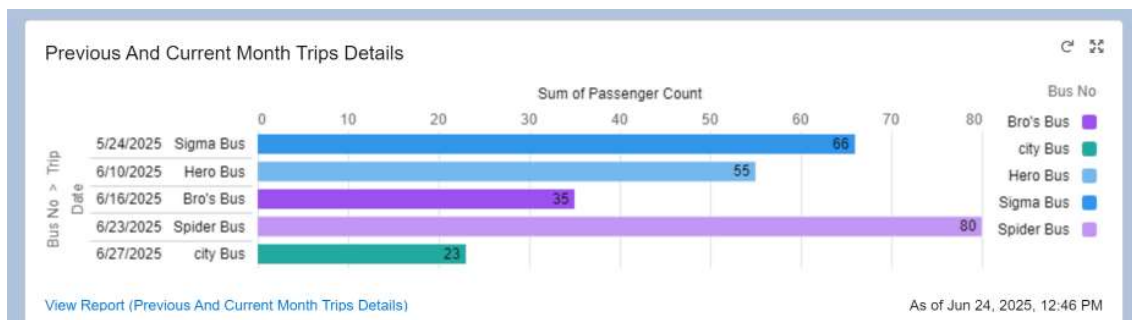
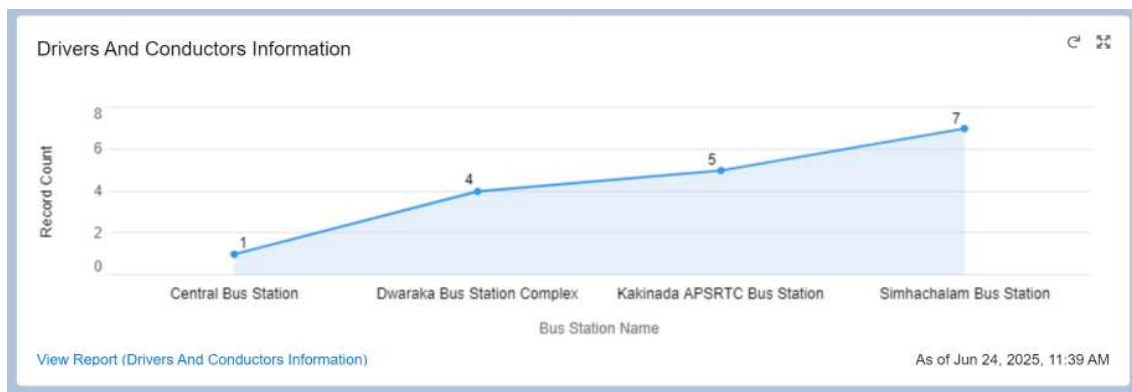
Bus Station Name ↑	Employee: Employee Id	Employee: ID	Employee Name	Role
Central Bus Station (1)	1	a04gL000005LOUH	Hero	Driver
Subtotal				
Dwaraka Bus Station Complex (4)	2	a04gL000005LO7h	Hemanth	Driver
	3	a04gL000005LOCX	RK	Driver
	4	a04gL000005N8TX	Bunny	Driver
	5	a04gL000005NODF	Tahir	Driver
Subtotal				
Kakinada APSRTC Bus Station (5)	6	a04gL000005LO85	praveen	Driver
	7	a04gL000005LOA/v	Gangadhar	Driver
	8	a04gL000005LOE9	sai	Driver
	17	a04gL000005LOFI	mahesh	Conductor
	9	a04gL000005LOHN	prem	Conductor
Subtotal				
Simhachalam Bus Station (7)	10	a04gL000005LNun	Bharath	Conductor
	11	a04gL000005LOIz	Bill	Conductor
	12	a04gL000005LOKb	jathin	Conductor

Row Counts Detail Rows Subtotals Grand Total

## 📁 Milestone 11: Dashboards

- Designed dashboards showing:
  - Revenue trends, trip performance, and role summary.
- Used bar, pie, and summary widgets for visualization.

## OUTPUT SCREENSHOT



## Milestone 12: Final Review

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- Conducted full system testing.
  - Checked all object links, flows, triggers, reports.
  - Confirmed the CRM is fully functional and stable.
- 

## 2. Dataset

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The system was tested with the following types of data:(Sample Records and Input Values Used During Testing)

Object	Sample Fields Used
Bus Station	Name: Visakhapatnam Central, Category: Managed
Bus	Model: Super Deluxe, Capacity: 45, Station: Visakhapatnam
Employee	Name: Rakesh, Role: Driver, Phone: 9876543210, DOB: 1980-06-14
Ticket Fare	Route: Hyderabad-Warangal (Express), Fare: ₹220
Trip	Route: Hyderabad-Warangal, Passengers: 34, Estimated Time: 4 hrs

 Note: All test records were created using Salesforce's UI and validated via flows and formula fields