Project Executable Files

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.

🔷 *1. Project Files*

Project Executable Files

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

📁**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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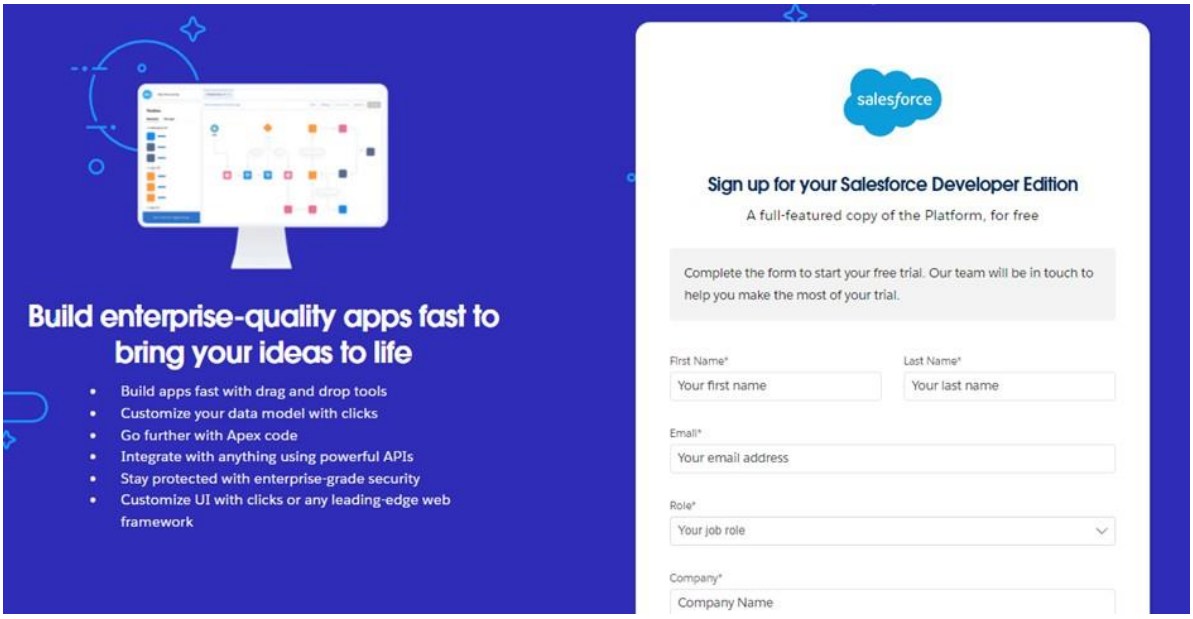
📁 *Milestone 1: Developer Account Setup*

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

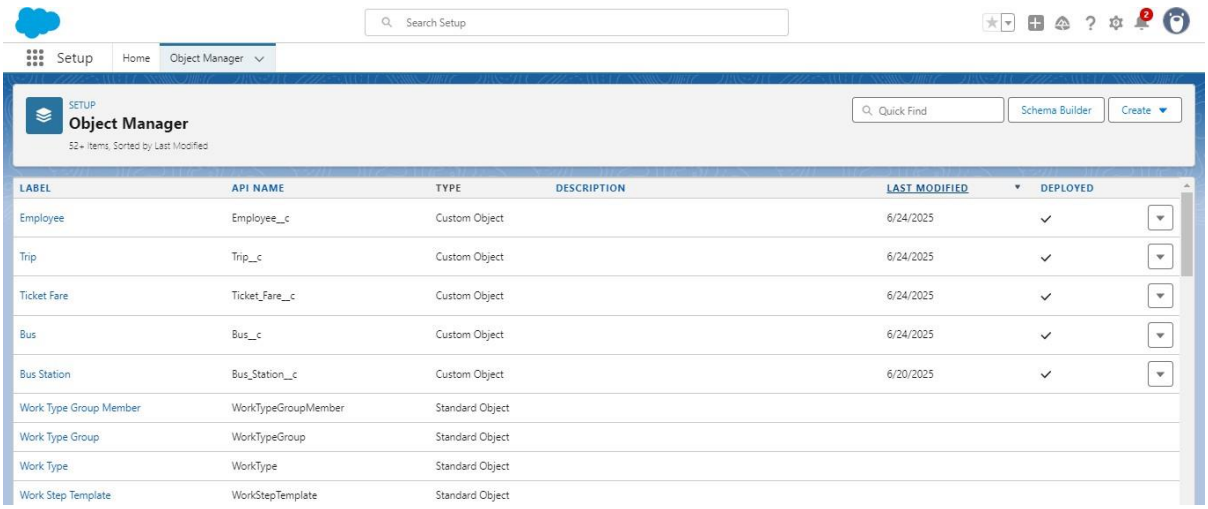
OUTPUT SCREENSHOT



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.

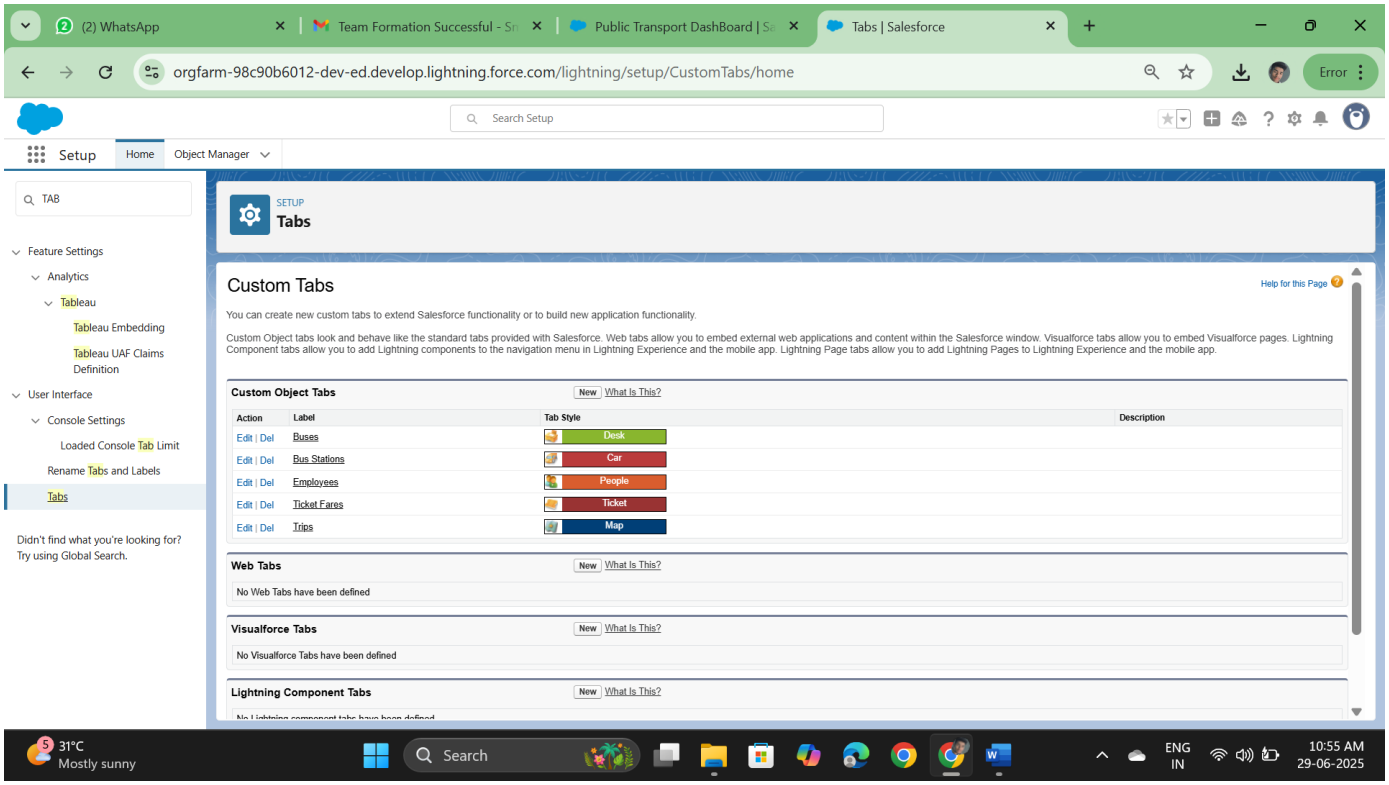
OUTPUT SCREENSHOT



Milestone 3: Tab Creation

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

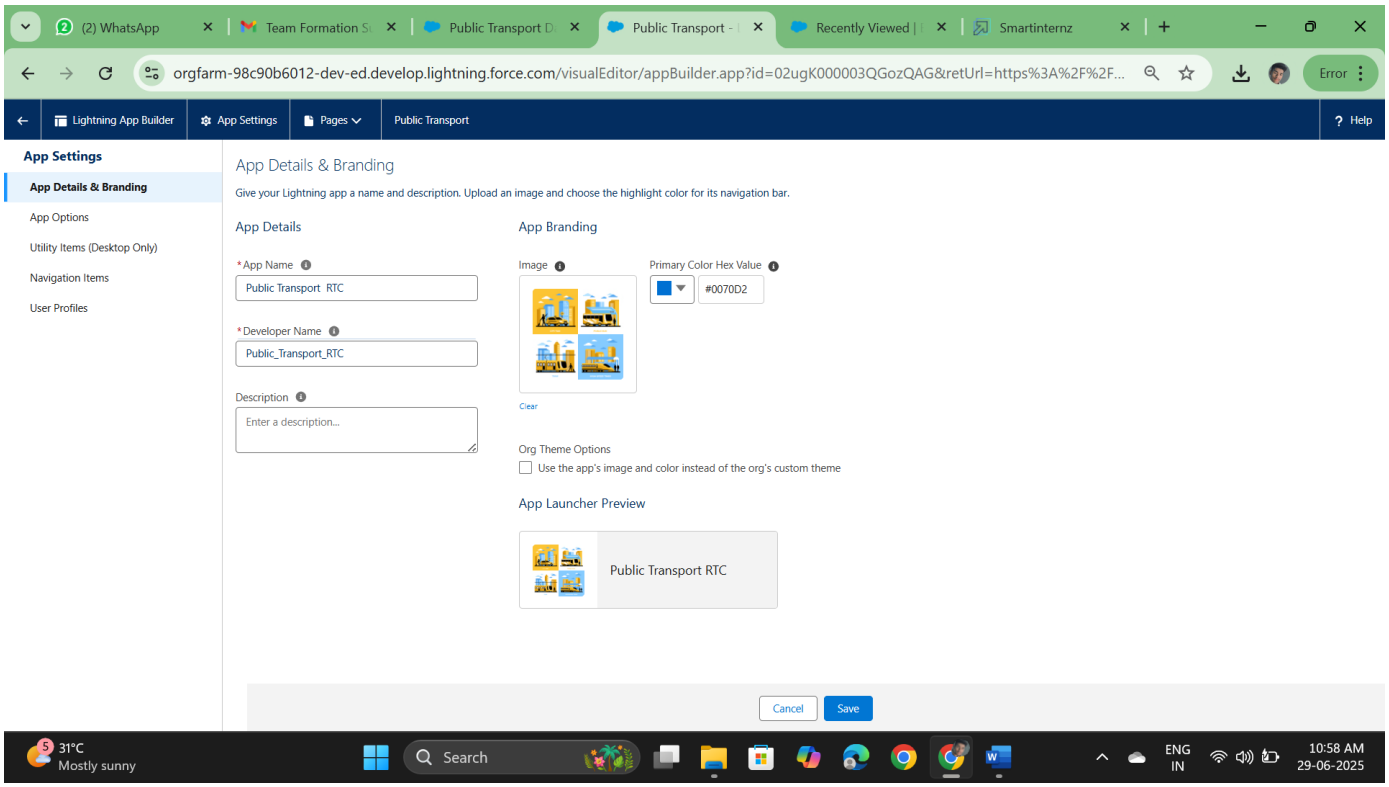
OUTPUT SCREENSHOT



Milestone 4: Lightning App Setup

- 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*

- 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.

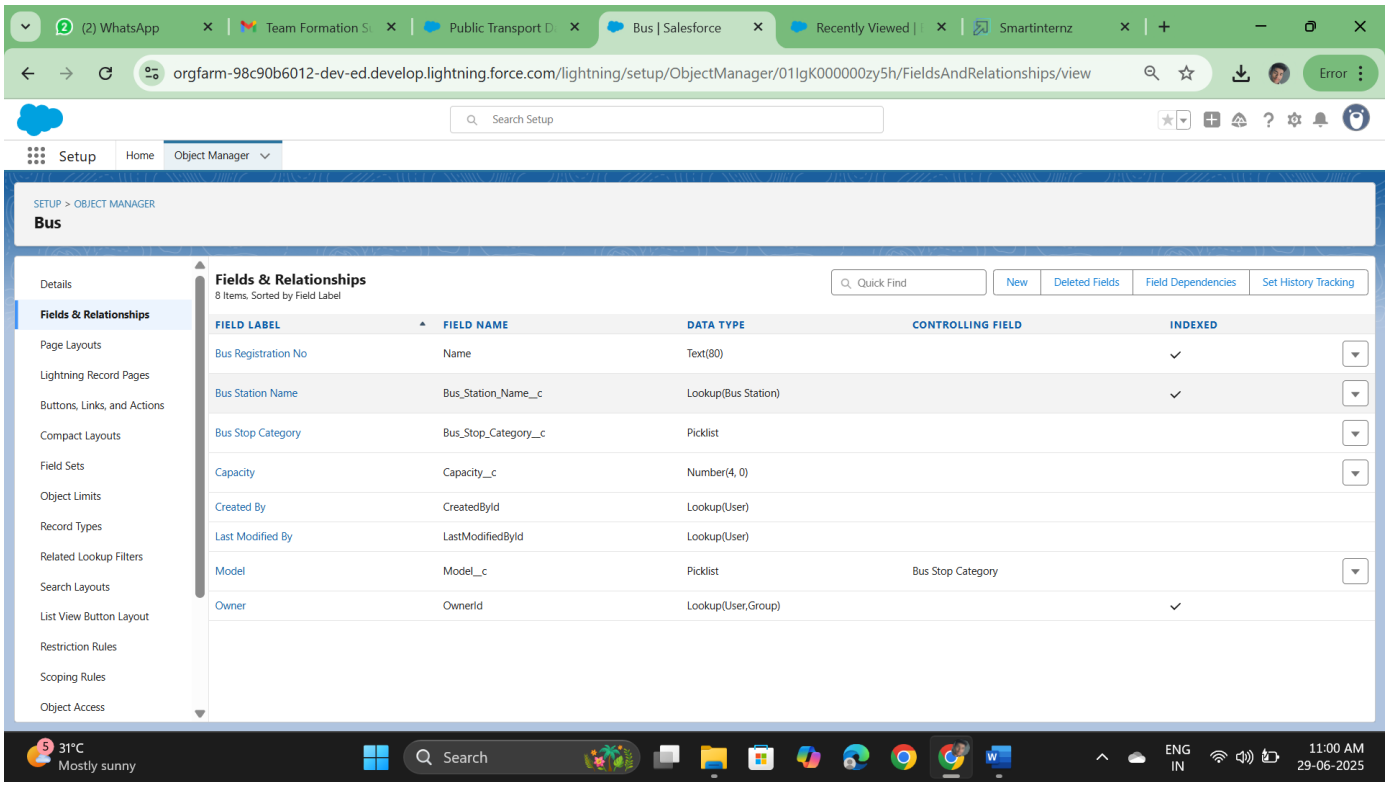
Milestone 5- Fields

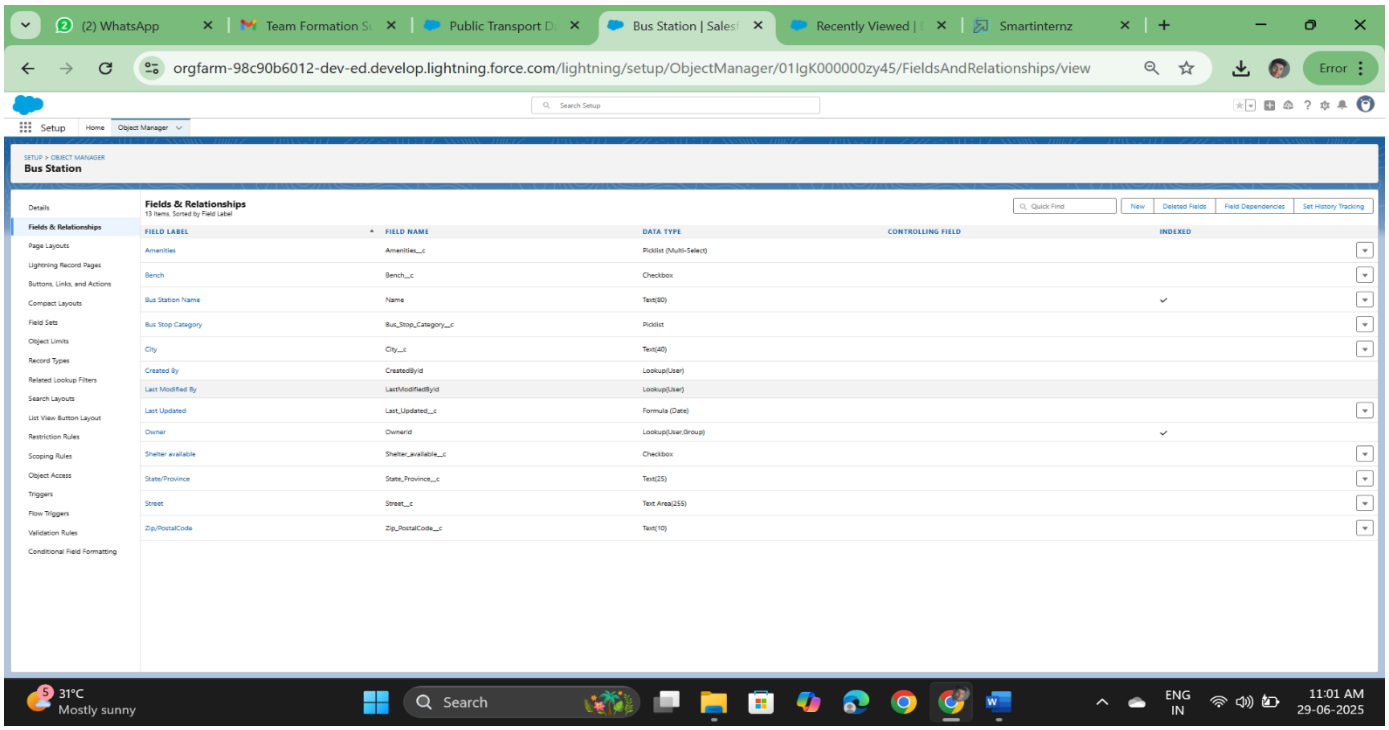
Object	Field Name	Data Type
Bus Station	Bus Station Name(Standard)	Text
	Bus Stop Category	Picklist(Unmanaged Bus Stop, Managed Bus Stop)
	Last Updated	Formula(Date)
	Amenities	Picklist(Multi-select)
	City	Text(40)
	Street	TextArea
	State/Province	Text(25)
	Zip/PostalCode	Text(10)
	Shelter Available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

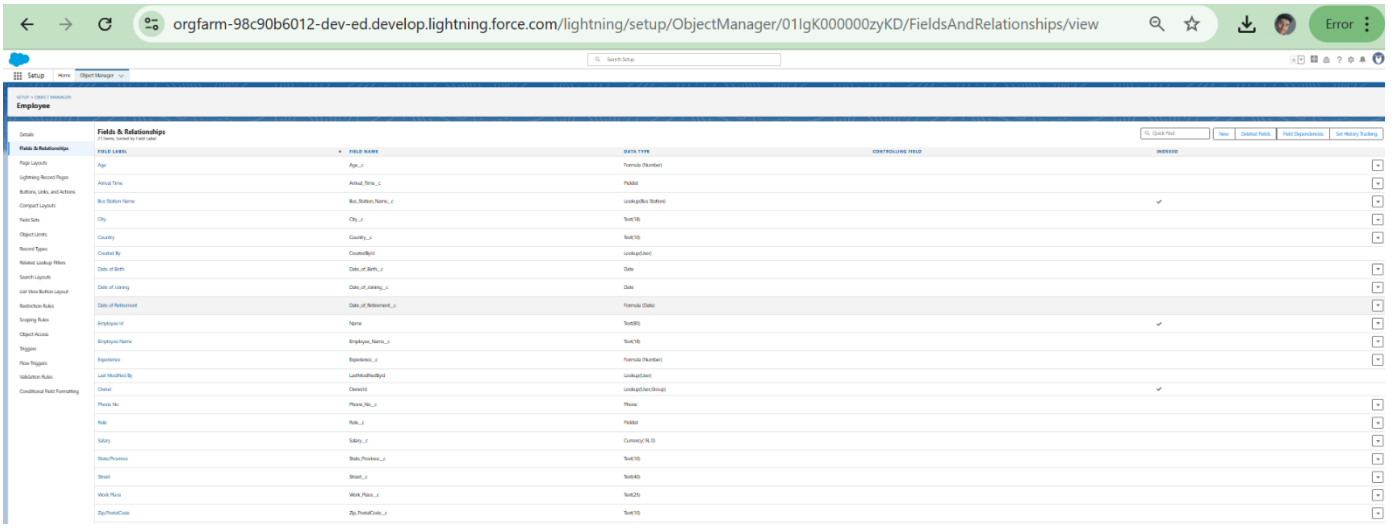
Bus	Bus Registration No (Standard)	Text
	Bus Station Name	Lookup(Bus Station)
	Capacity	Number(4,0)
	Category	Picklist
	Model	Picklist(Dependent on Category)
Trip	Trip No(Standard)	Text
	Trip Date	Date
	Bus No	Lookup(Bus)
	Route Name	Lookup(Ticket Fare)
	Arrival Time	Picklist
	Departure Time	Picklist
	Bus Starting Terminal	Text
	Destination Terminal	Text
	Driver Id	Lookup(Employee)
	Driver	Formula
	Conductor Id	Lookup(Employee)
	Conductor	Formula
	Estimated Travel Time	Number
	Frequency Per Day	Number(2,0)
	No. of Stops	Number(2,0)
	Passenger Count	Number(4,0)

	Ticket Fare	Currency(16,2)
	Total Amount	Formula
Ticket Fare	Route Name(Standard)	Text
	Bus Model	Picklist
	Ticket Fare	Currency(10,2)
Employee	Employee Id(Standard)	Text
	Bus Station Name	Lookup(Bus Station)
	Employee Name	Text
	Role	Picklist
	Date of Birth	Date
	Age	Formula(Number)
	Work Place	Text
	Salary	Currency(18,0)
	Phone	Phone
	Date of Joining	Date
	Date of Retirement	Formula(Date)
	Experience	Formula(Number)
	Street	TextArea
	City	Text
	State/Province	Text
	Country	Text
	Zip/PostalCode	Text

OUTPUT SCREENSHOT



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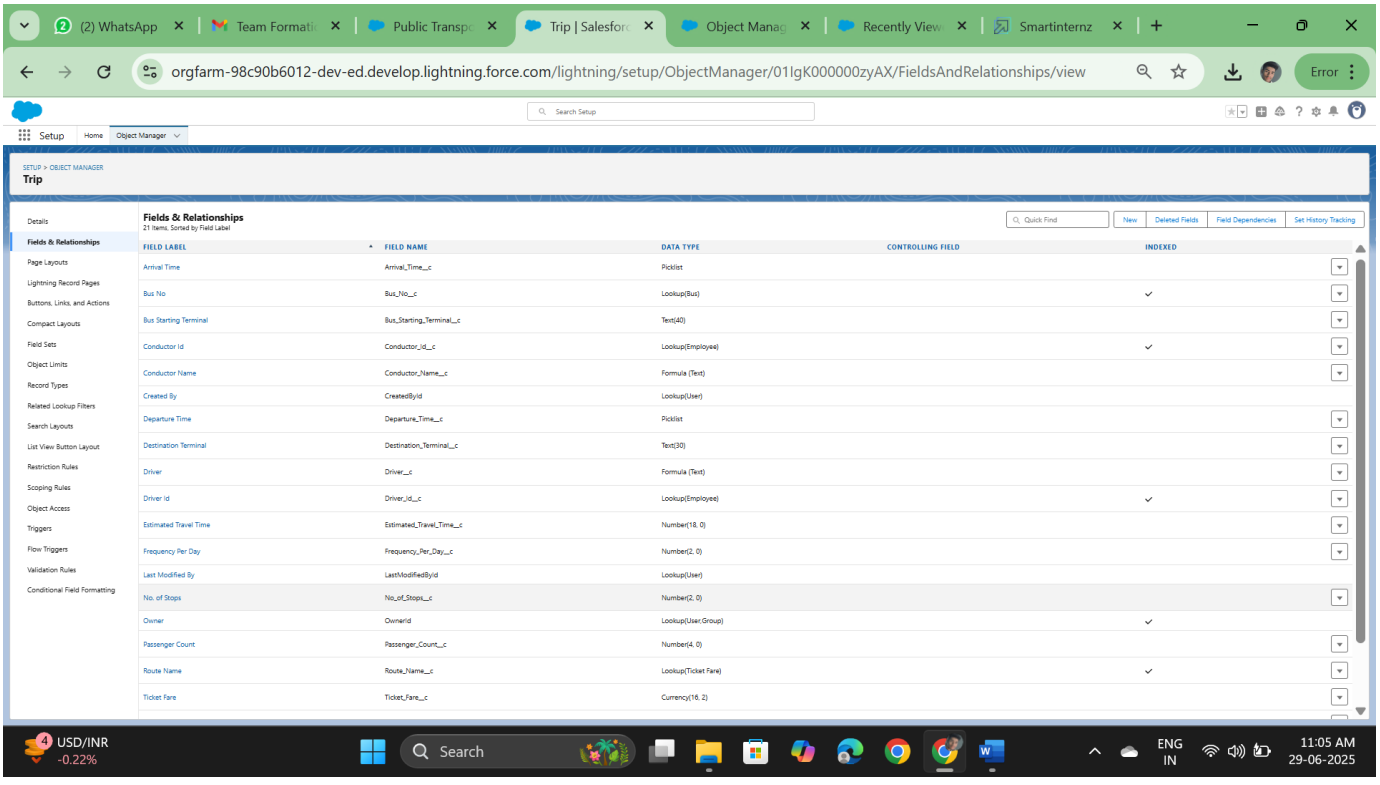
Error
Employee
Fields & Relationships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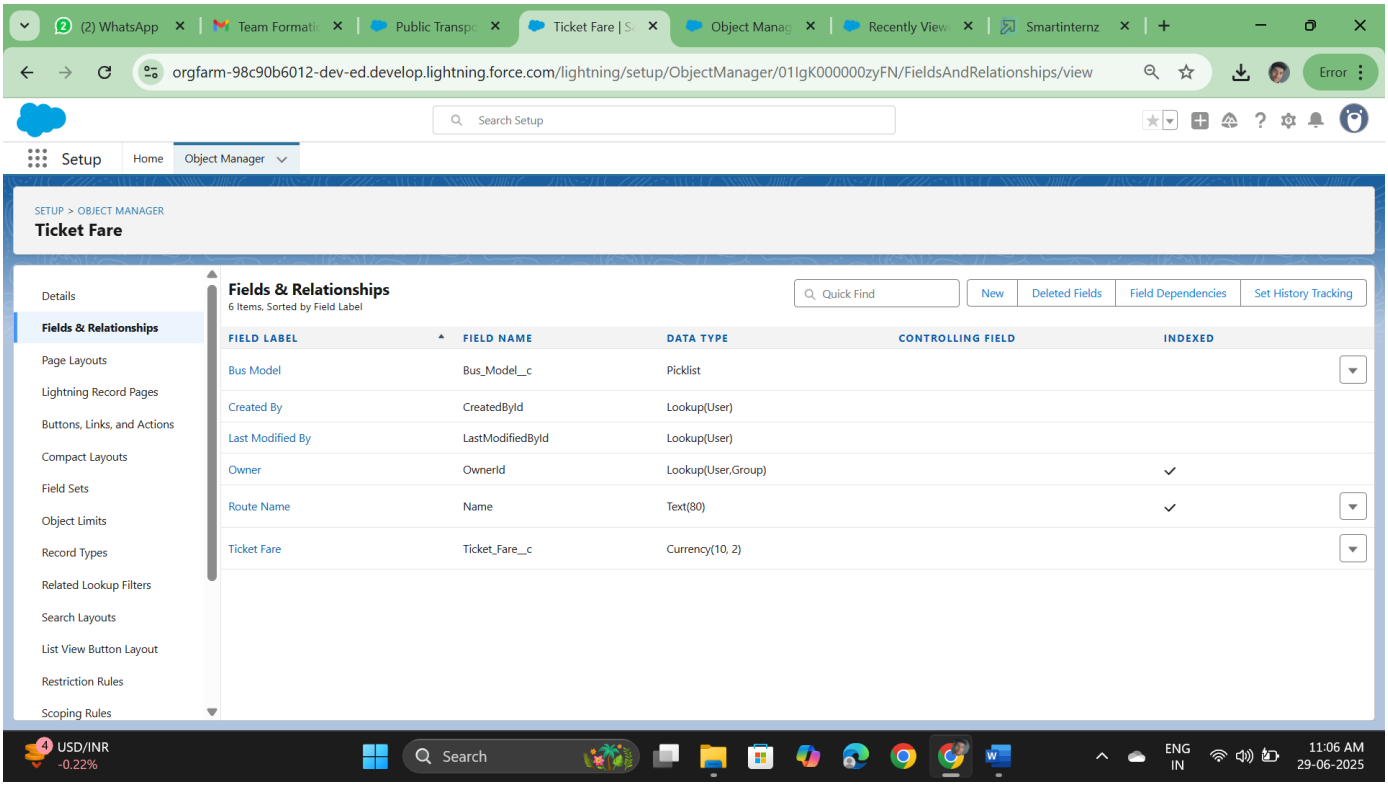
Related Lookup Filters
Search Layouts
List View Button Layout
Restriction Rules
Scoping Rules
Object Access
Triggers
Flow Triggers
Validation Rules
Conditional Field Formatting
Fields & Relationships
21 Items, Sorted by Field Label
Quick Find
New
Deleted Fields
Field Dependencies
Set History Tracking
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(40)
Conductor Id
Conductor_Id__c
Lookup(Employee)
Conductor Name
Conductor_Name__c
Formula (Text)
Created By
CreatedById
Lookup(User)
Departure Time
Departure_Time__c
Picklist
Destination Terminal
Destination_Terminal__c
Text(30)
Driver
Driver__c
Formula (Text)
Driver Id
Driver_Id__c
Lookup(Employee)
Estimated Travel Time
Estimated_Travel_Time__c
Number(18, 0)
Frequency Per Day
Frequency_Per_Day__c
Number(2, 0)
Last Modified By
LastModifiedById
Lookup(User)
No. of Stops
No_of_Stops__c
Number(2, 0)
Owner
OwnerId
Lookup(User,Group)
Passenger Count
Passenger_Count__c
Number(4, 0)
Route Name
Route_Name__c
Lookup(Ticket Fare)
Ticket Fare
Ticket_Fare__c
Currency(16, 2)
USD/INR
-0.22%
Search
ENG
IN
11:05 AM
29-06-2025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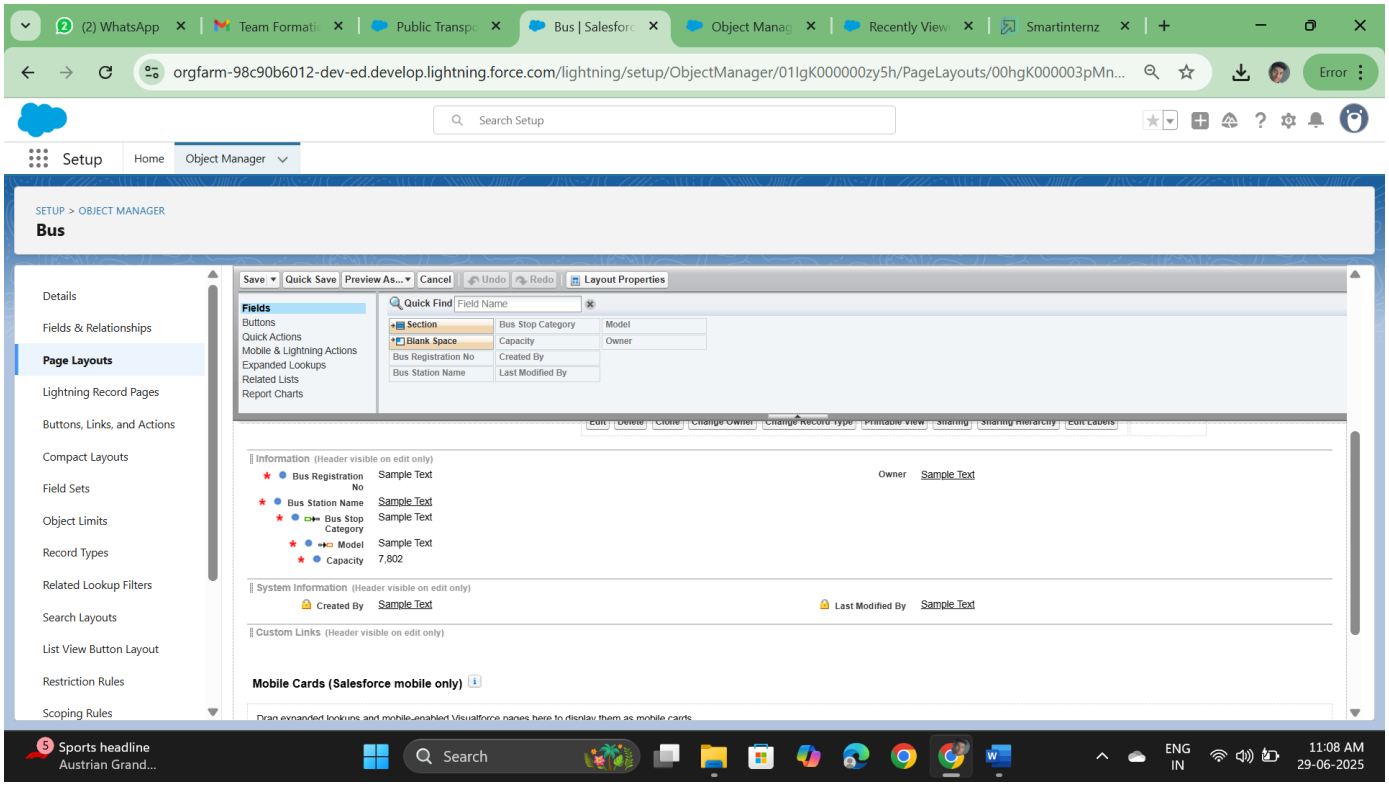
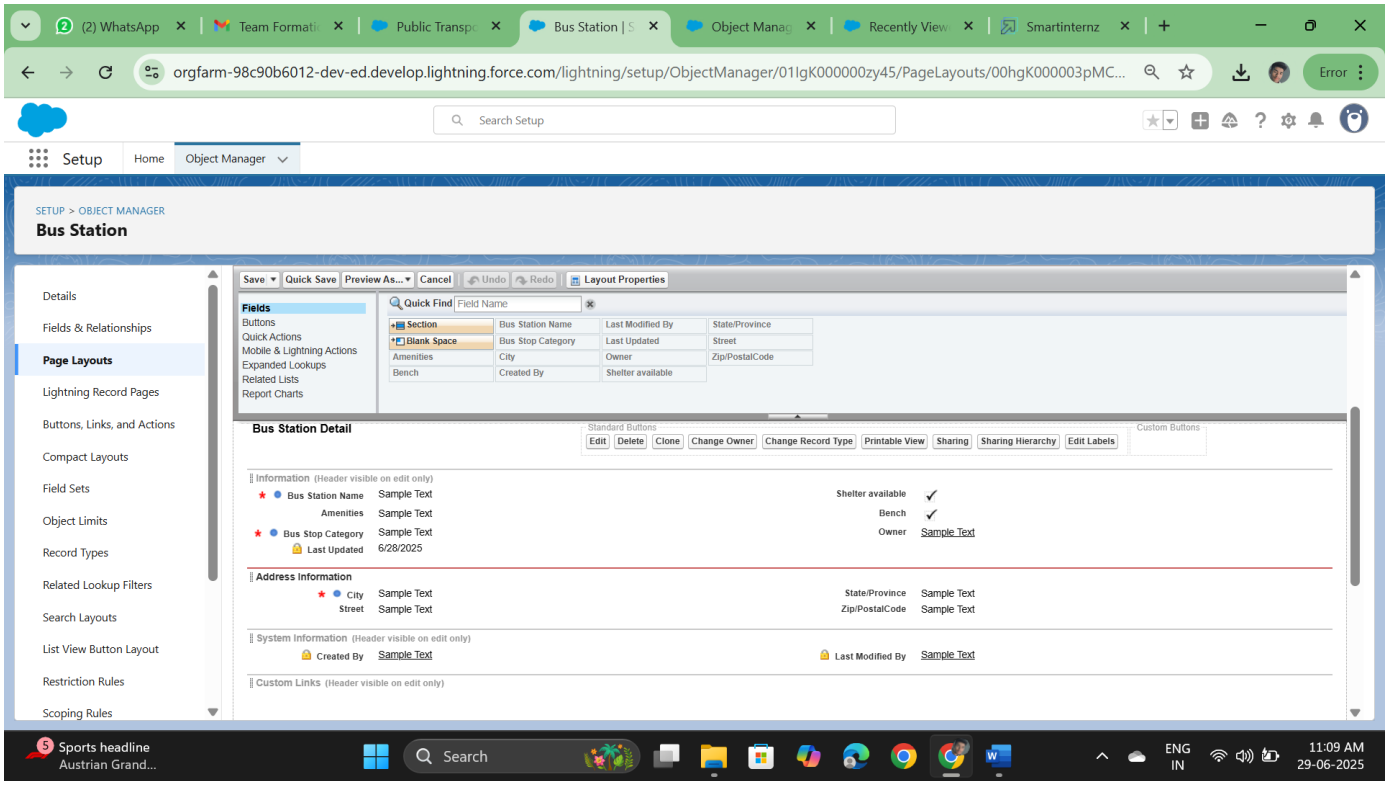
Field Sets
Object Limits
Record Types
Related Lookup Filters
Search Layouts
List View Button Layout
Restriction Rules
Scoping Rules
Fields & Relationships
6 Items, Sorted by Field Label
Quick Find
New
Deleted Fields
Field Dependencies
Set History Tracking
FIELD LABEL
FIELD NAME
DATA TYPE
CONTROLLING 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)
USD/INR
-0.22%
Search
ENG
IN
11:06 AM
29-06-2025

Milestone 6: Page Layouts

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

OUTPUT SCREENSHOT

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Bus Station
Details
Fields & Relationships
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Search Layouts
List View Button Layout
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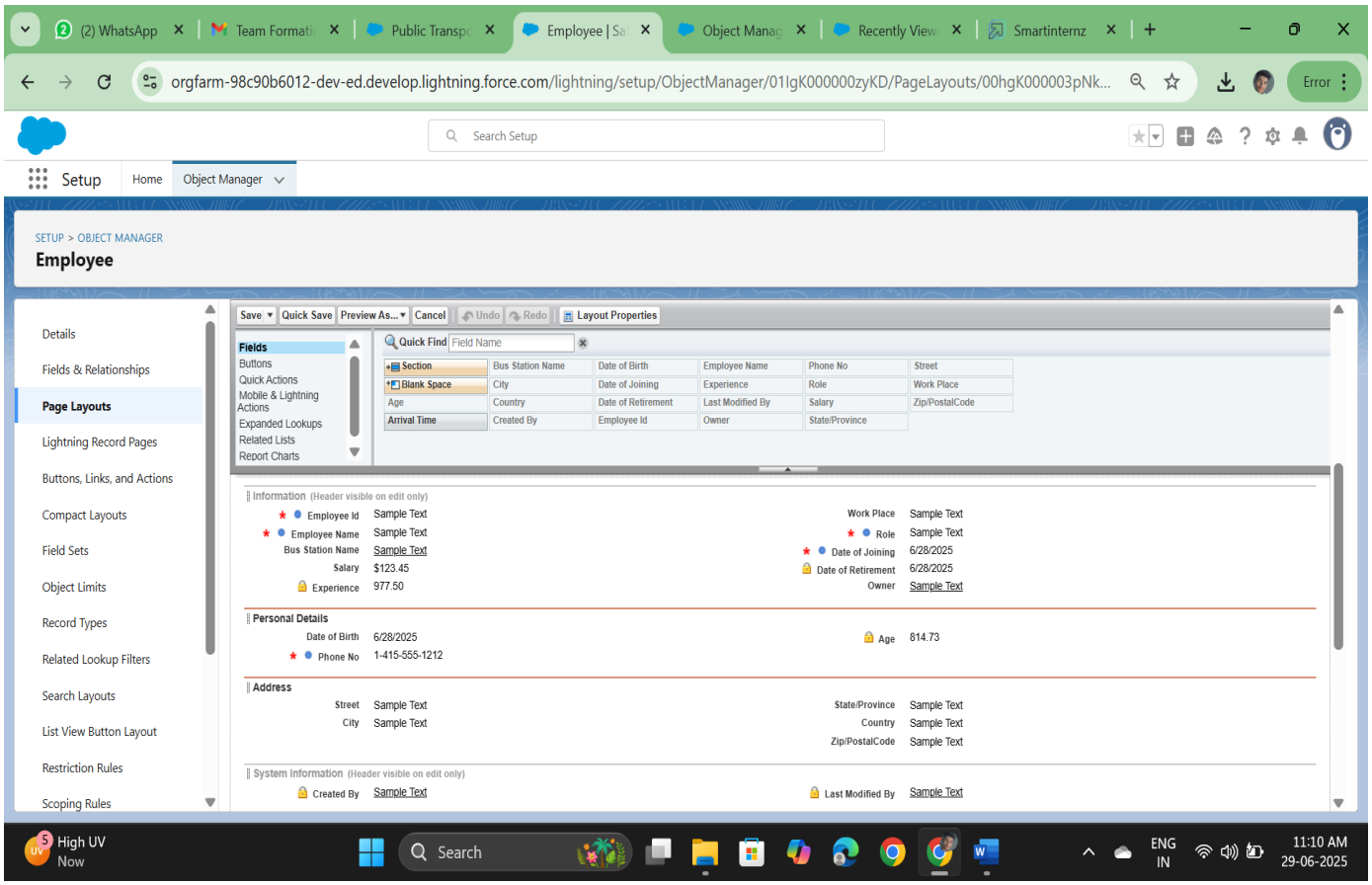
Scoping Rules
Bus Station Detail
Information
Address Information
System Information
Custom Links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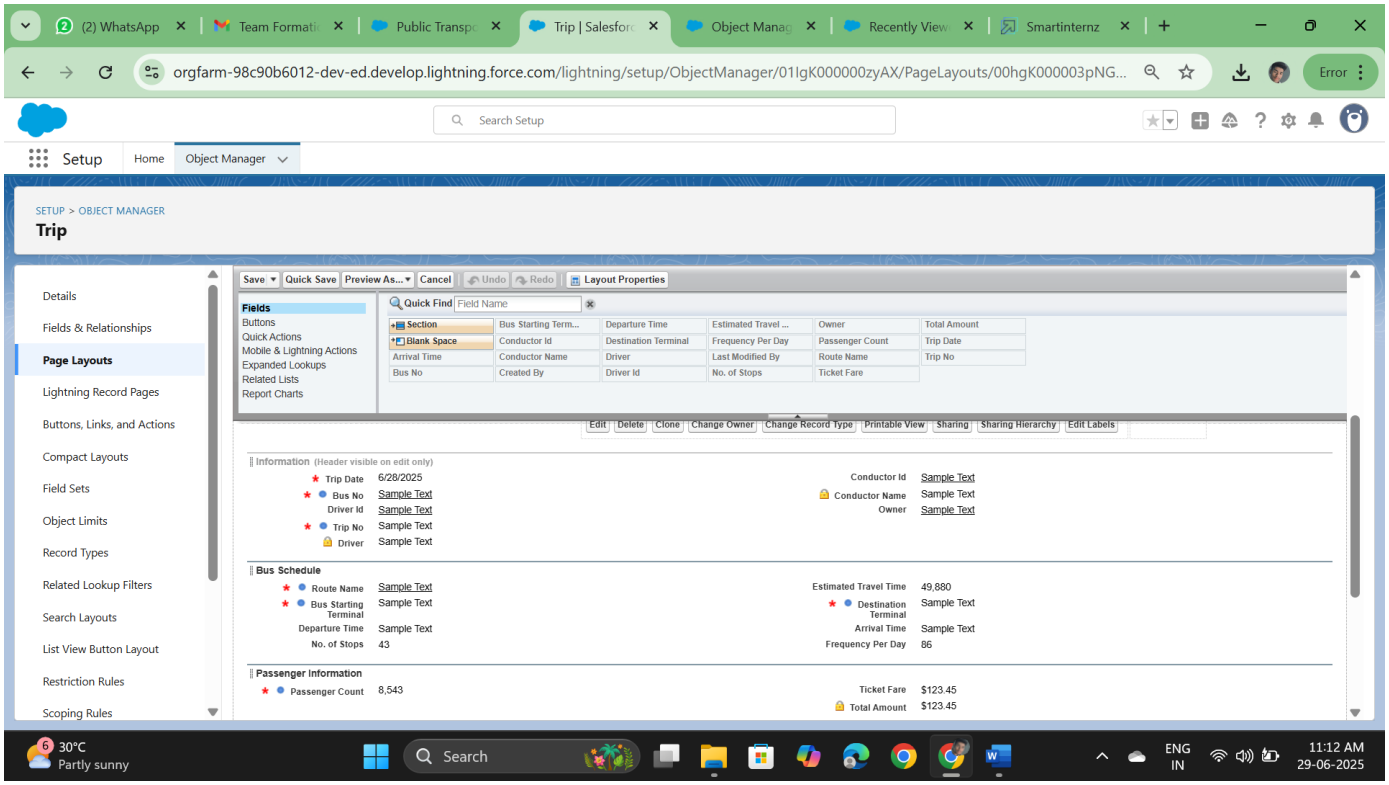
Personal Details
Address
System Information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Scoping Rules
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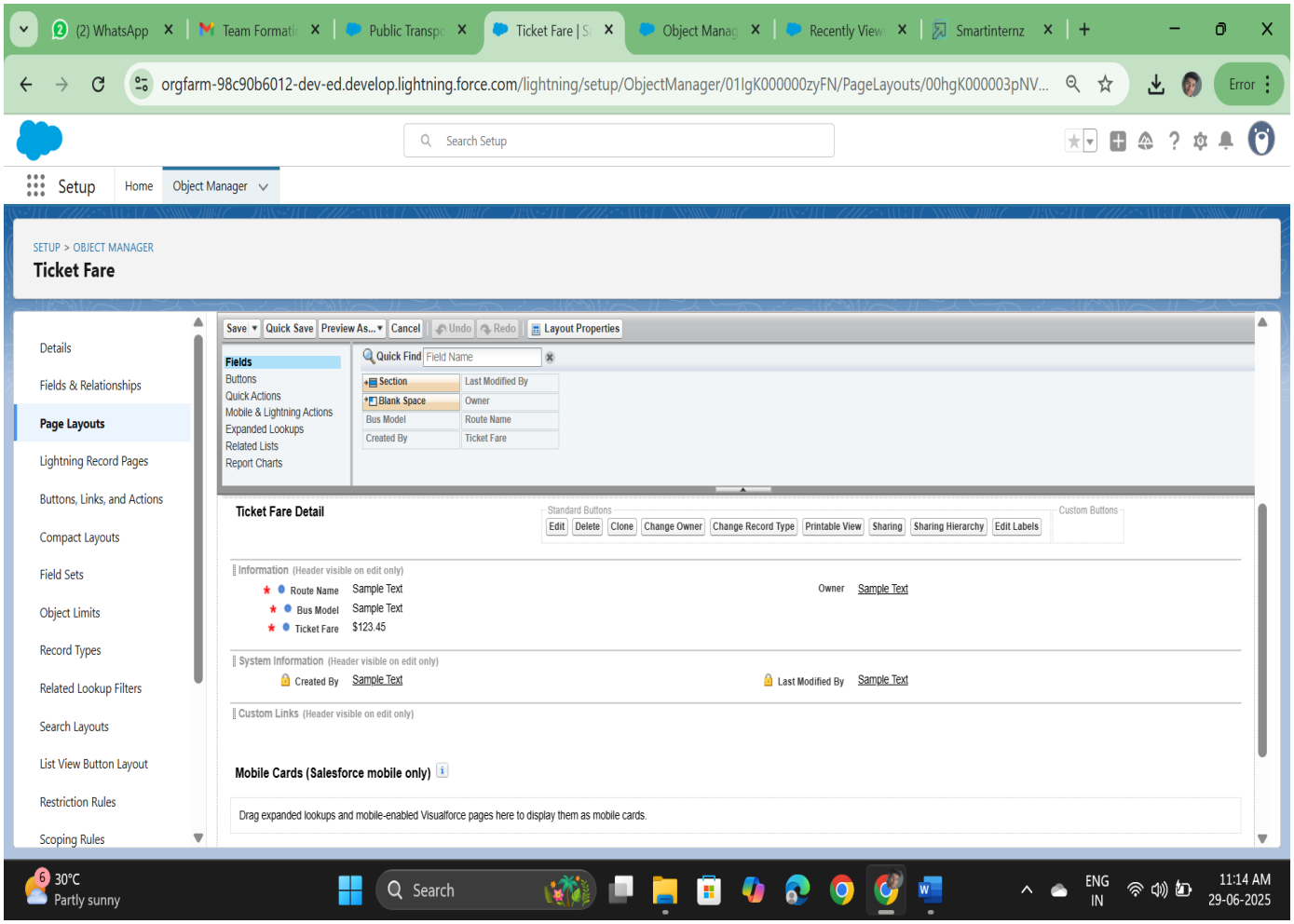
Quick Save
Preview As...
Cancel
Undo
Redo
Layout Properties
Fields
Buttons
Quick Actions
Mobile & Lightning Actions
Expanded Lookups
Related Lists
Report Charts
Quick Find
Field Name
Section
Blank Space
Bus Starting Term...
Departure Time
Estimated Travel ...
Owner
Total Amount
Conductor Id
Destination Terminal
Frequency Per Day
Passenger Count
Trip Date
Arrival Time
Conductor Name
Driver
Last Modified By
Route Name
Trip No
Bus No
Created By
Driver Id
No. of Stops
Ticket Fare
Edit
Delete
Clone
Change Owner
Change Record Type
Printable View
Sharing
Sharing Hierarchy
Edit Labels
Information
(Header visible on edit only)
Trip Date
6/28/2025
Bus No
Sample Text
Driver Id
Sample Text
Trip No
Sample Text
Driver
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
43
Estimated Travel Time
49,880
Destination Terminal
Sample Text
Arrival Time
Sample Text
Frequency Per Day
86
Passenger Information
Passenger Count
8,543
Ticket Fare
$123.45
Total Amount
$123.45
30°C
Partly sunny
Search
ENG
IN
11:12 AM
29-06-2025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Quick Actions
Mobile & Lightning Actions
Expanded Lookups
Related Lists
Report Charts
Quick Find
Field Name
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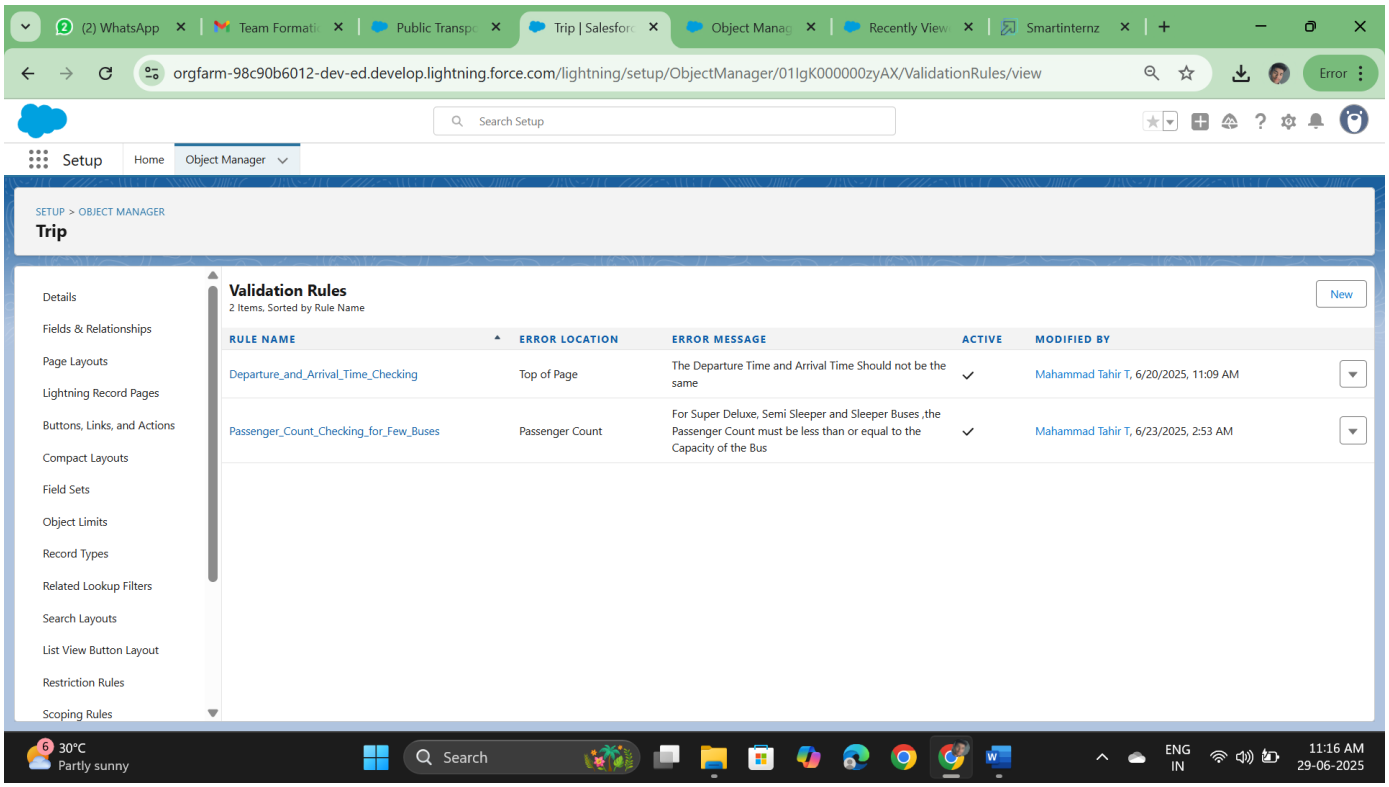
Blank Space
Bus Model
Created By
Last Modified By
Owner
Route Name
Ticket Fare
Ticket Fare Detail
Standard Buttons
Edit
Delete
Clone
Change Owner
Change Record Type
Printable View
Sharing
Sharing Hierarchy
Edit Labels
Custom Buttons
Information (Header visible on edit only)
Route Name
Sample Text
Bus Model
Sample Text
Ticket Fare
$123.45
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)
Mobile Cards (Salesforce mobile only)
Drag expanded lookups and mobile-enabled Visualforce pages here to display them as mobile cards.
30°C
Partly sunny
Search
ENG
IN
11:14 AM
29-06-2025

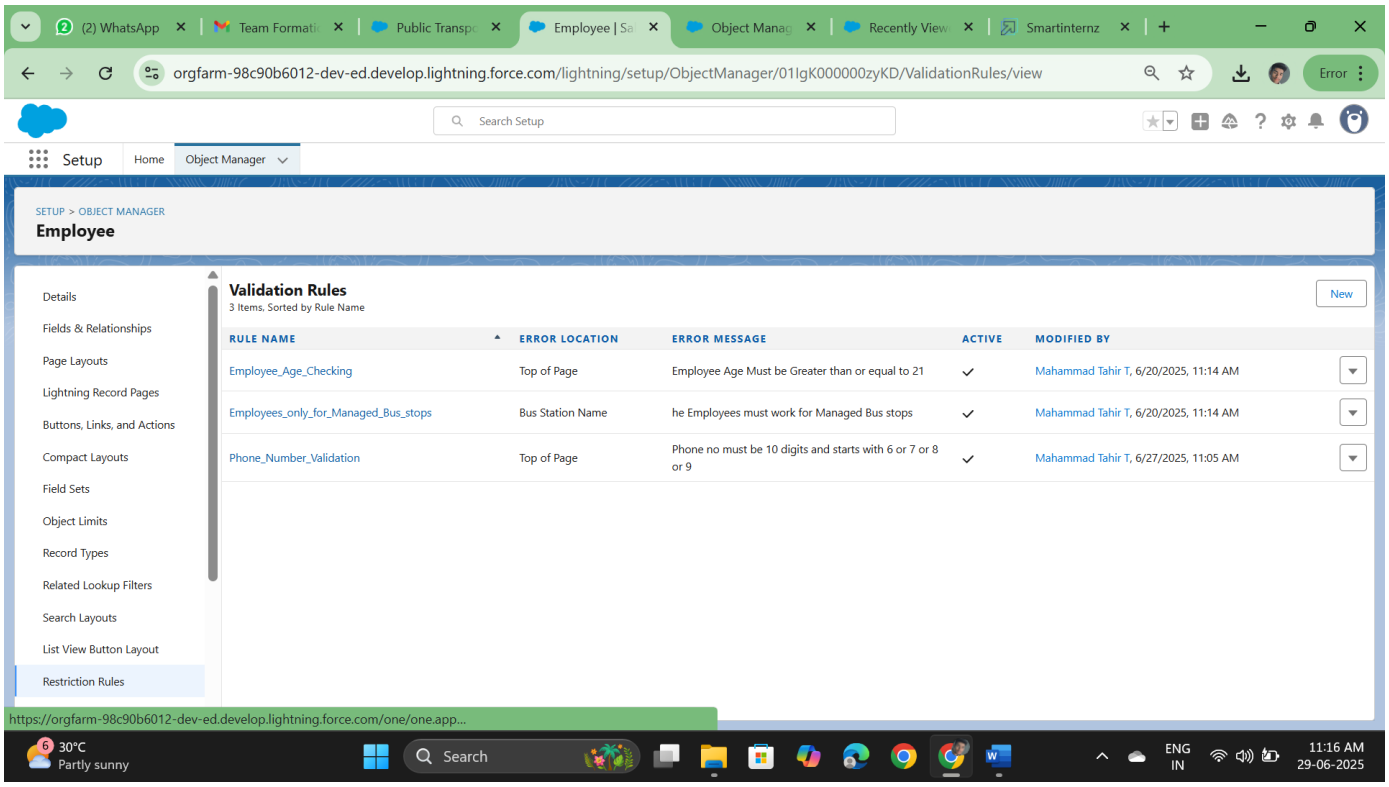
Milestone 7: Validation Rules

Enforced data quality with validations like:

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

OUTPUT SCREENSHOT

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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
Validation Rules
3 Items, Sorted by Rule Name
New
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
Mahammad Tahir T, 6/20/2025, 11:14 AM
Employees_only_for_Managed_Bus_stops
Bus Station Name
he Employees must work for Managed Bus stops
Mahammad Tahir T, 6/20/2025, 11:14 AM
Phone_Number_Validation
Top of Page
Phone no must be 10 digits and starts with 6 or 7 or 8 or 9
Mahammad Tahir T, 6/27/2025, 11:05 AM
https://orgfarm-98c90b6012-dev-ed.develop.lightning.force.com/one/one.app...
30°C
Partly sunny
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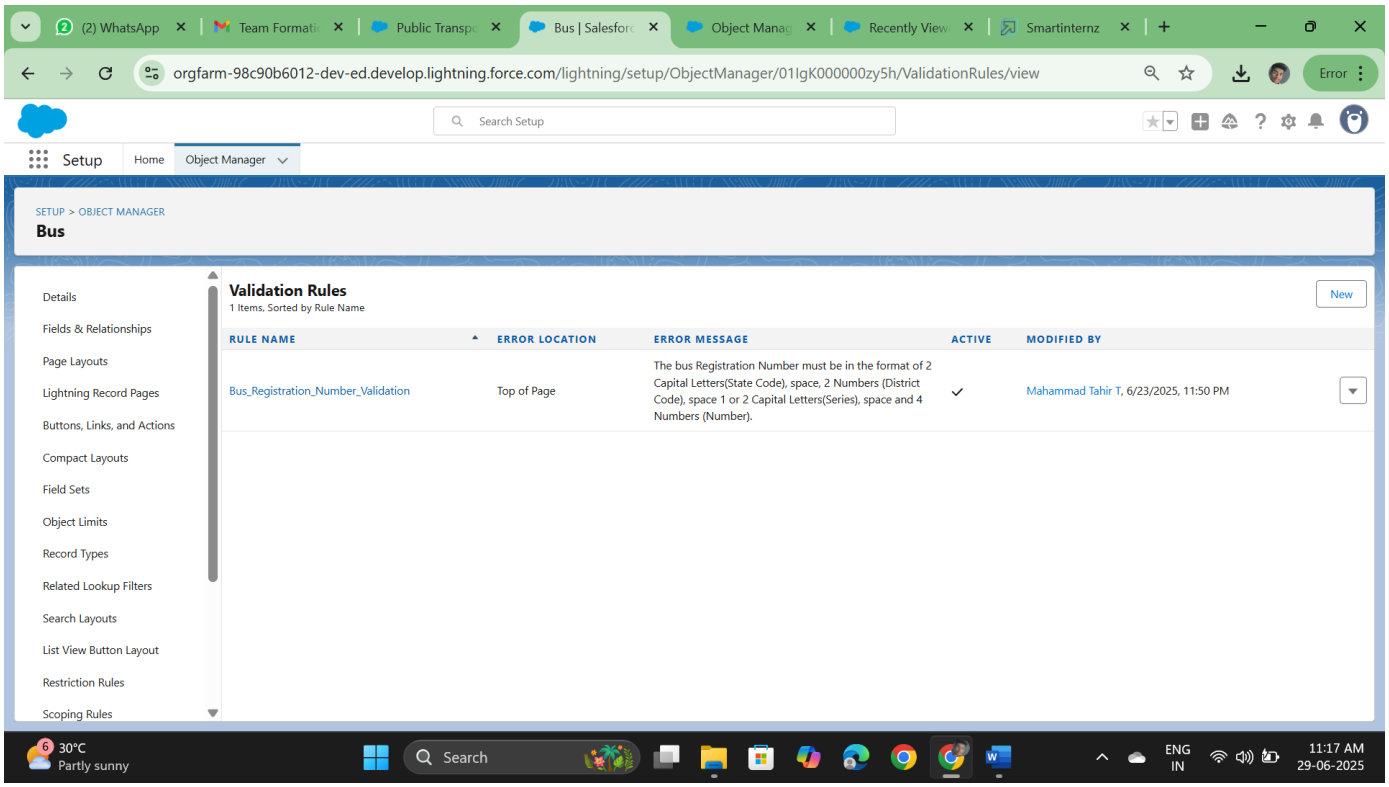
29-06-2025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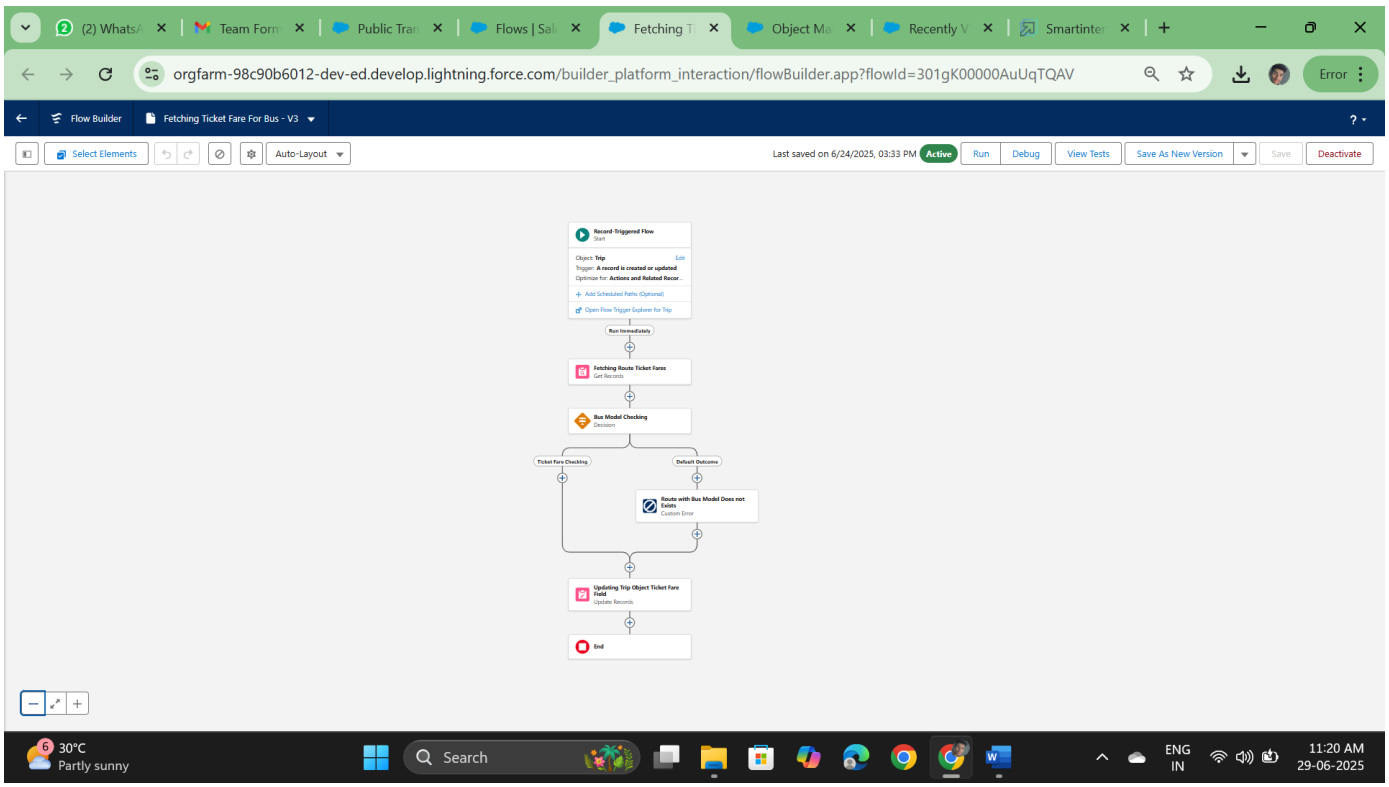
Field Sets
Object Limits
Record Types
Related Lookup Filters
Search Layouts
List View Button Layout
Restriction Rules
Scoping Rules
Validation Rules
1 Items, Sorted by Rule Name
New
RULE NAME
ERROR LOCATION
ERROR MESSAGE
ACTIVE
MODIFIED BY
Bus_Registration_Number_Validation
Top of Page
The bus Registration 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).
Mahammad Tahir T, 6/23/2025, 11:50 PM
30°C
Partly sunny
Search
ENG
IN
11:17 AM
29-06-2025

Milestone 8: Flow Setup

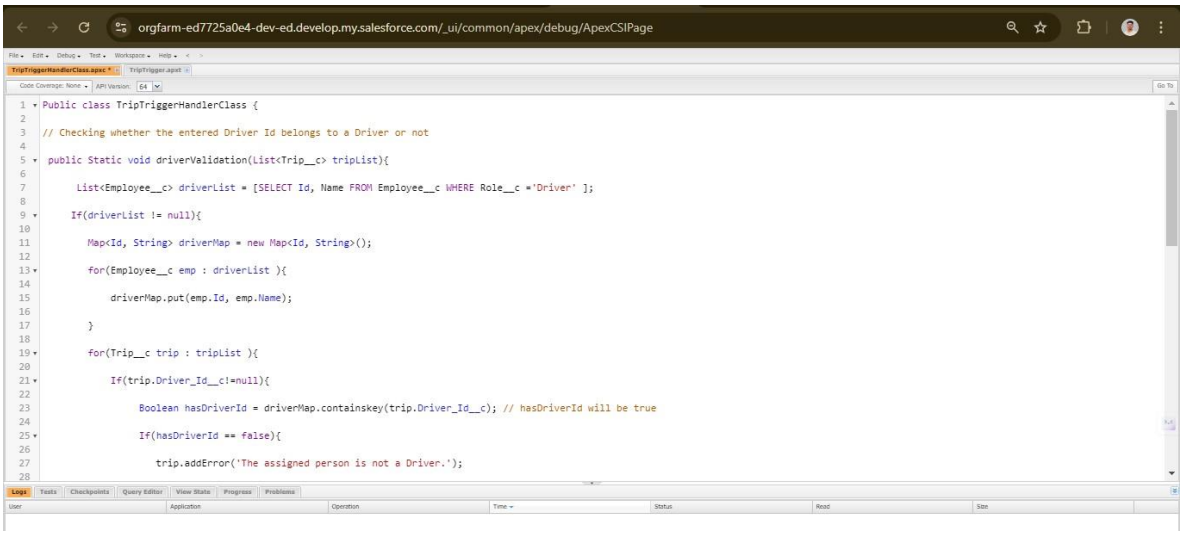
- Designed a **record-triggered flow**:
  - Automatically fetches fare based on route + model.
- Improved automation and reduced manual input errors.

OUTPUT SCREENSHOT



- 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



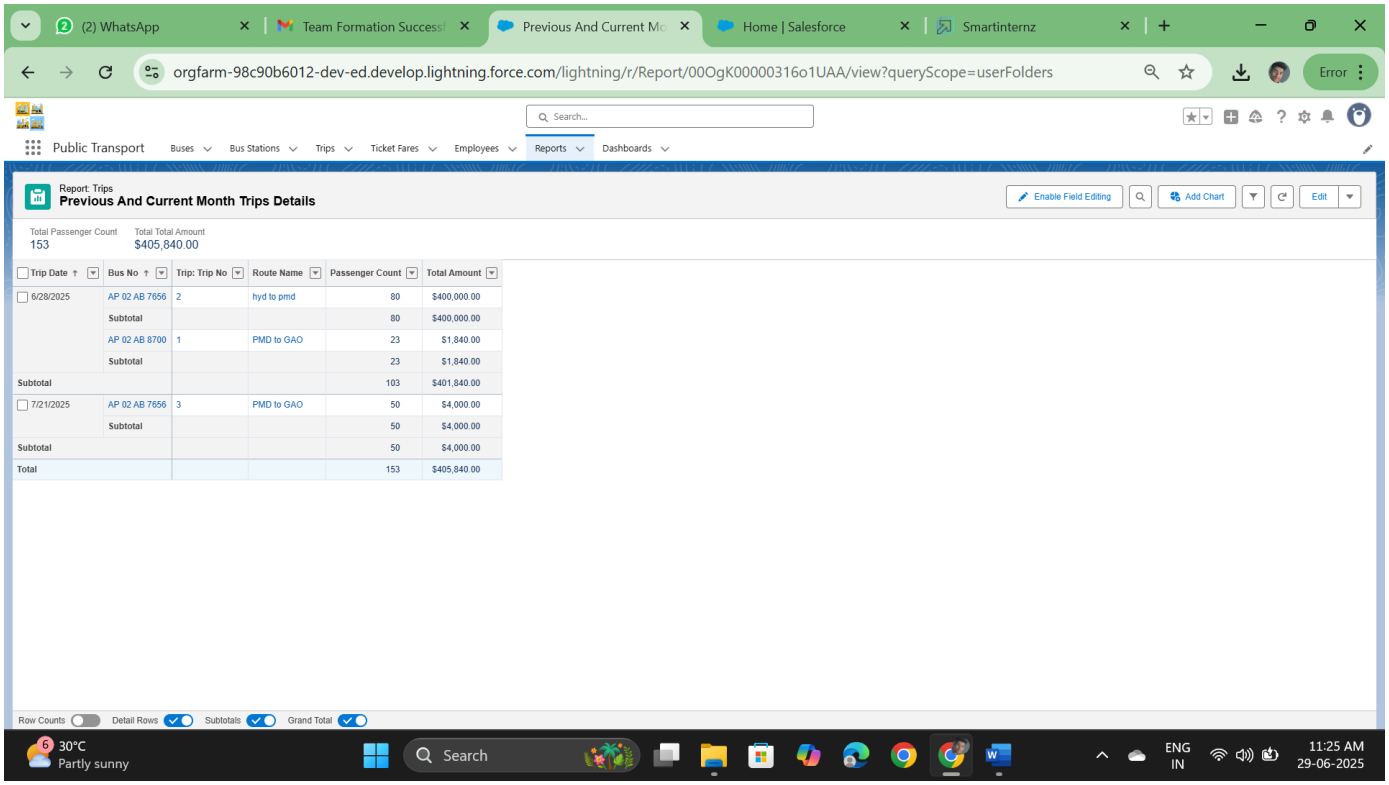
orgfarm-ed7725a0e4-dev-ed.develop.my.salesforce.com/_ui/common/apex/debug/ApexCSIPage
TripTriggerHandlerClass.apxc *
TripTrigger.apxt
Code Coverage: None
API Version: 64
Go To
// Checking whether the entered conductor Id belongs to a Conductor or not
public Static void conductorValidation(List<Trip__c> tripList){
List<Employee__c> conductorList = [SELECT Id, Name FROM Employee__c WHERE Role__c ='Conductor'];
Map<Id, String> conductorMap = new Map<Id, String>();
for(Employee__c emp : conductorList){
conductorMap.put(emp.Id, emp.Name);
}
for(Trip__c trip : tripList){
If(trip.Conductor_Id__c!=null){
Boolean hasConductorId = conductorMap.containskey(trip.Conductor_Id__c); // hasConductorId will be true
If(hasConductorId == false){
trip.addError('The assigned person is not a Conductor.');
}

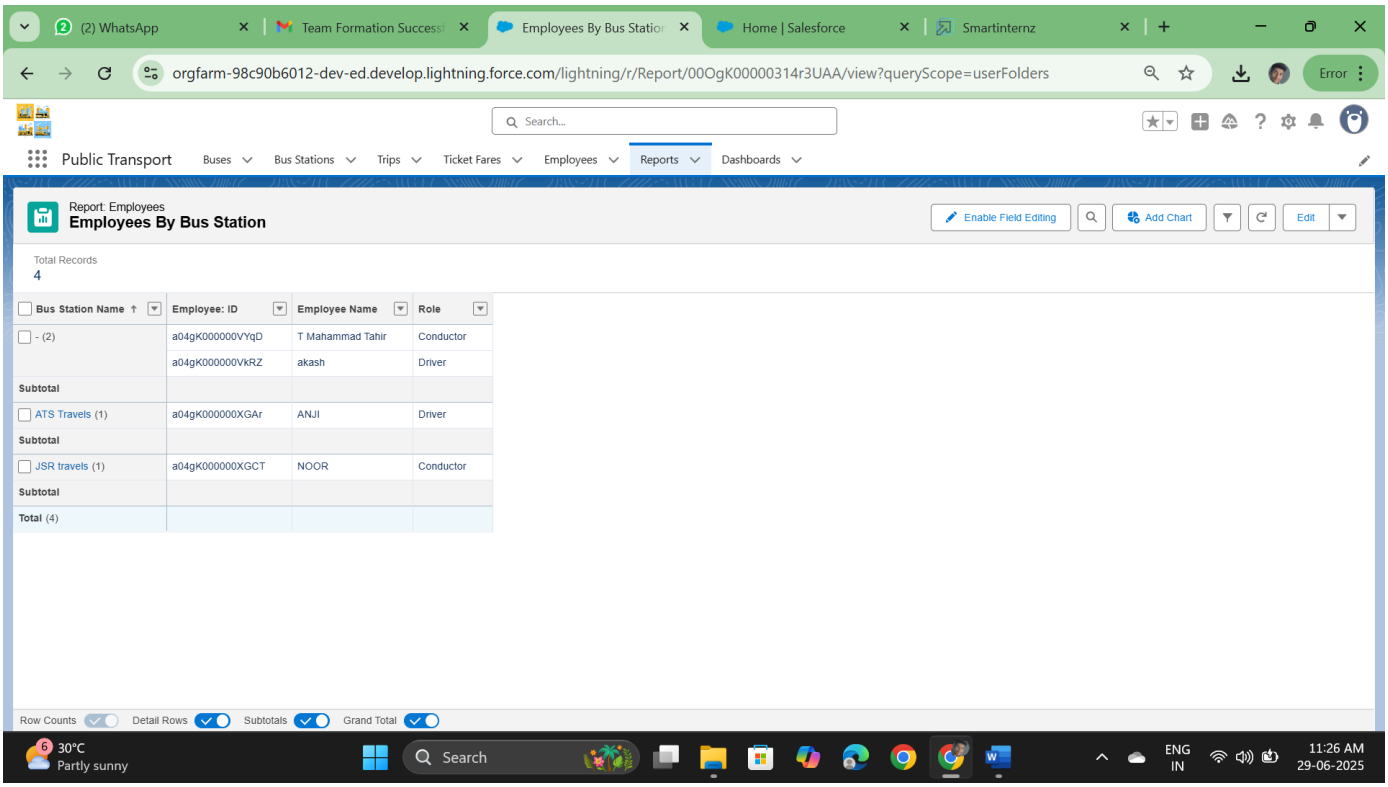
orgfarm-ed7725a0e4-dev-ed.develop.my.salesforce.com/_ui/common/apex/debug/ApexCSIPage
TripTriggerHandlerClass.apxc *
TripTrigger.apxt
Code Coverage: None
API Version: 64
Go To
trigger TripTrigger on Trip__c (before insert, before update) {
if(trigger.isBefore){
if(trigger.isInsert || trigger.isUpdate){
// Validating the Conductor Id in Trip is really a Conductor or not
TripTriggerHandlerClass.driverValidation(trigger.new);
// Validating the Conductor Id in Trip is really a Conductor or not
TripTriggerHandlerClass.conductorValidation(trigger.new);
}
}
}

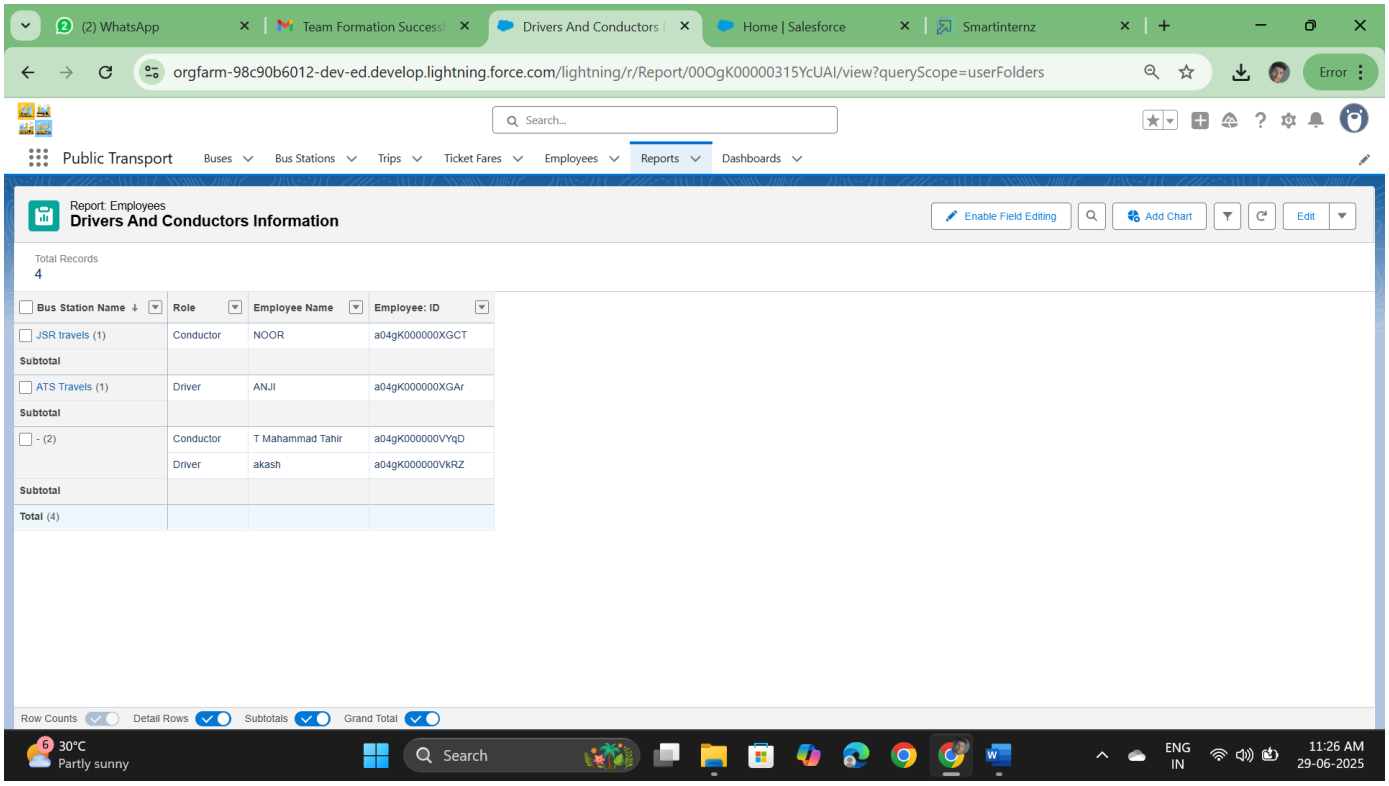
Milestone 10: Reports

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

OUTPUT SCREENSHOT



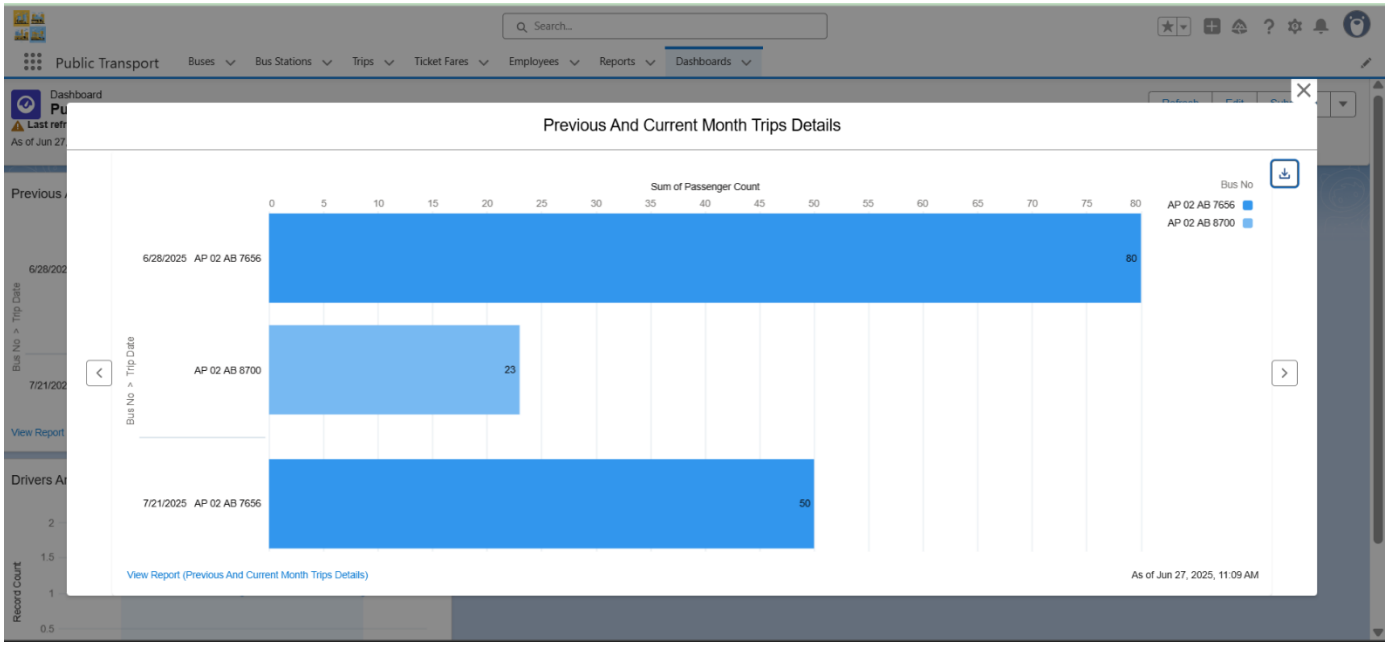

(2) WhatsApp
Team Formation Success
Employees By Bus Station
Home | Salesforce
Smartinternz
orgfarm-98c90b6012-dev-ed.develop.lightning.force.com/lightning/r/Report/00OgK00000314r3UAA/view?queryScope=userFolders
Error
Search...
Public Transport
Buses
Bus Stations
Trips
Ticket Fares
Employees
Reports
Dashboards
Report: Employees
Employees By Bus Station
Enable Field Editing
Add Chart
Edit
Total Records
4
Bus Station Name
Employee: ID
Employee Name
Role
- (2)
a04gK000000VYqD
T Mahammad Tahir
Conductor
a04gK000000VkRZ
akash
Driver
Subtotal
ATS Travels (1)
a04gK000000XGAr
ANJI
Driver
Subtotal
JSR travels (1)
a04gK000000XGCT
NOOR
Conductor
Subtotal
Total (4)
Row Counts
Detail Rows
Subtotals
Grand Total
30°C
Partly sunny
Search
ENG
IN
11:26 AM
29-06-2025

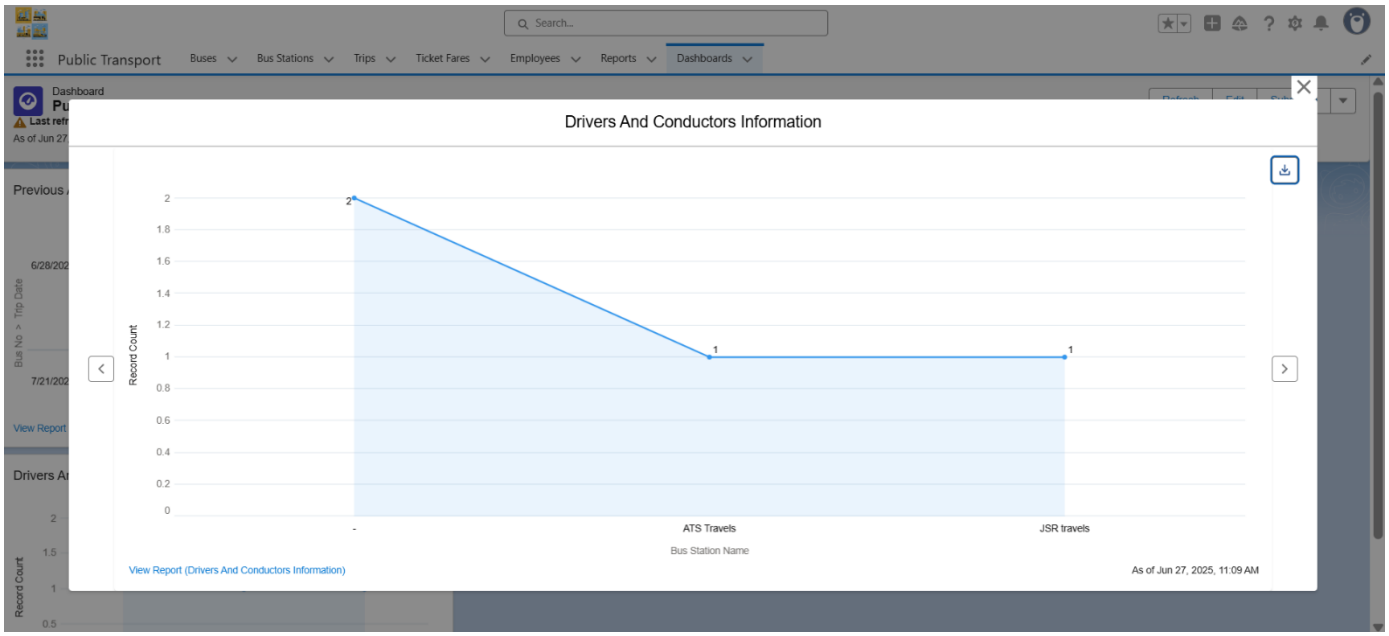

(2) WhatsApp
Team Formation Success
Drivers And Conductors
Home | Salesforce
Smartinternz
orgfarm-98c90b6012-dev-ed.develop.lightning.force.com/lightning/r/Report/00OgK00000315YcUAI/view?queryScope=userFolders
Error
Search...
Public Transport
Buses
Bus Stations
Trips
Ticket Fares
Employees
Reports
Dashboards
Report: Employees
Drivers And Conductors Information
Enable Field Editing
Add Chart
Edit
Total Records
4
Bus Station Name
Role
Employee Name
Employee: ID
JSR travels (1)
Conductor
NOOR
a04gK000000XGCT
Subtotal
ATS Travels (1)
Driver
ANJI
a04gK000000XGAr
Subtotal
- (2)
Conductor
T Mahammad Tahir
a04gK000000VYqD
Driver
akash
a04gK000000VkRZ
Subtotal
Total (4)
Row Counts
Detail Rows
Subtotals
Grand Total
30°C
Partly sunny
Search
ENG
IN
11:26 AM
29-06-2025

Milestone 11: Dashboards

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

OUTPUT SCREENSHOT




Search...
Public Transport
Buses
Bus Stations
Trips
Ticket Fares
Employees
Reports
Dashboards
Dashboard
Drivers And Conductors Information
Record Count
2
1
1
ATS Travels
JSR travels
Bus Station Name
View Report (Drivers And Conductors Information)
As of Jun 27, 2025, 11:09 AM

📁 Milestone 12: Final Review

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

🔹 2. Dataset

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