Dynamic Route Optimization

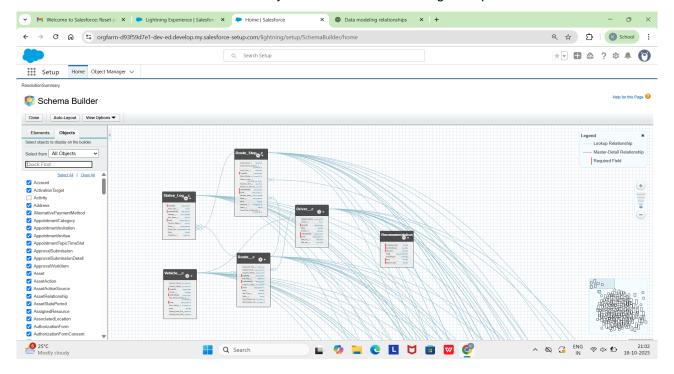
Salesforce-Based Delivery Management System

Phase 3: Automation & Business Logic

Academic Project Report

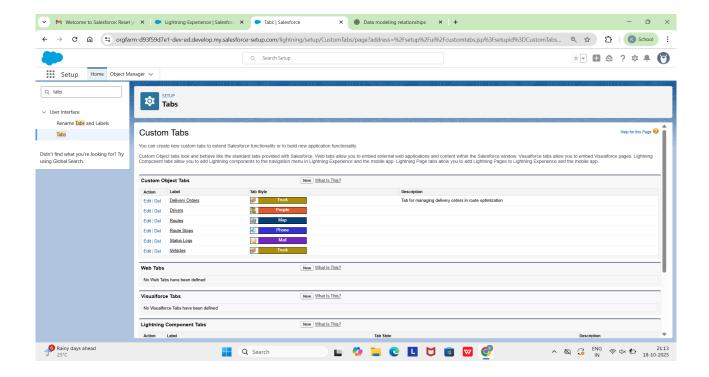
Step 1: Schema Builder Overview

The Schema Builder provides a visual representation of all objects, fields, and relationships in the Salesforce environment. In this project, custom objects such as Delivery Orders, Routes, Route Stops, Vehicles, Drivers, and Status Logs were created and connected using lookup relationships. This ensures seamless data connectivity and enables route tracking and optimization.



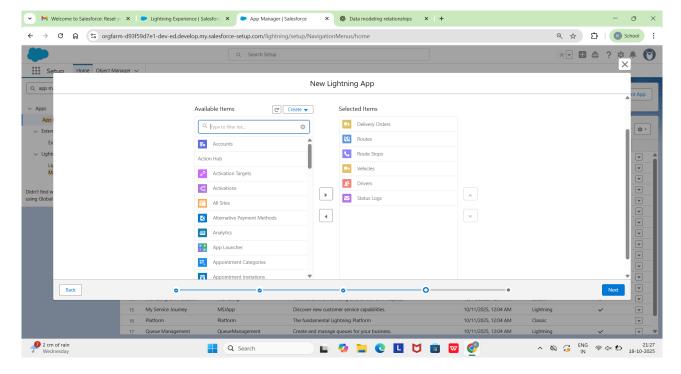
Step 2: Custom Tabs Creation

Custom tabs were created to provide easy navigation to each custom object within the Salesforce app. Tabs such as Delivery Orders, Routes, Route Stops, Vehicles, Drivers, and Status Logs were added to enhance usability.



Step 3: Lightning App Setup

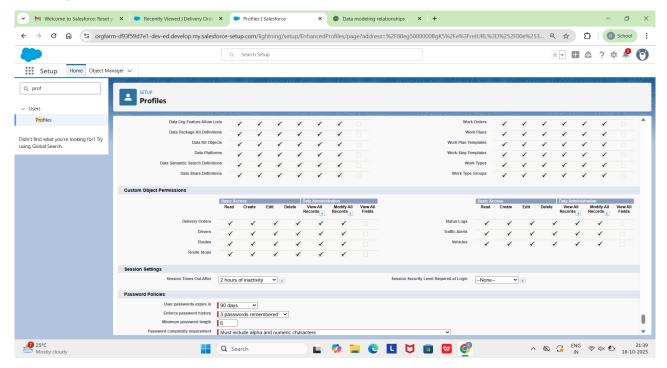
A new Lightning App named 'Dynamic Route Optimization' was created using the App Manager. The app includes navigation items for all primary custom objects, allowing streamlined access to manage routes, vehicles, and delivery orders.



Step 4: Profiles and Permission Management

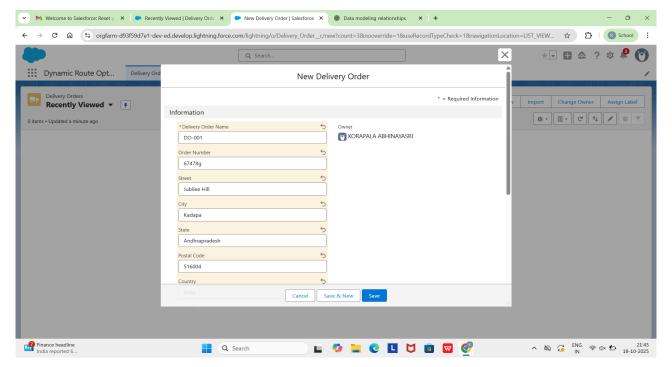
Profiles were configured to manage object-level and field-level access for different roles such as Admin, Dispatcher, and Driver. Each profile specifies permissions like Read, Create, Edit, and

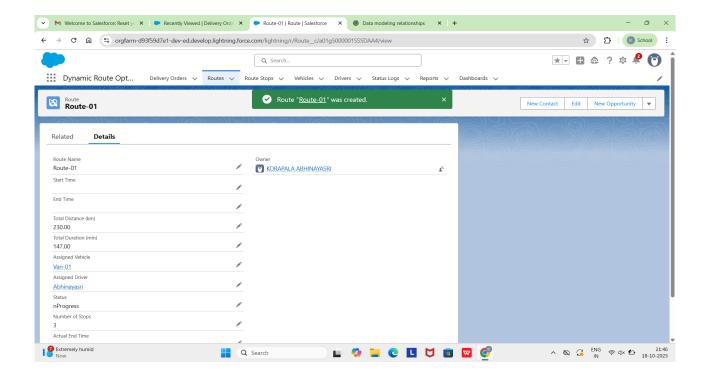
Delete for custom objects. Password policies and session timeouts were also enforced for security compliance.



Step 5: Record Creation Examples

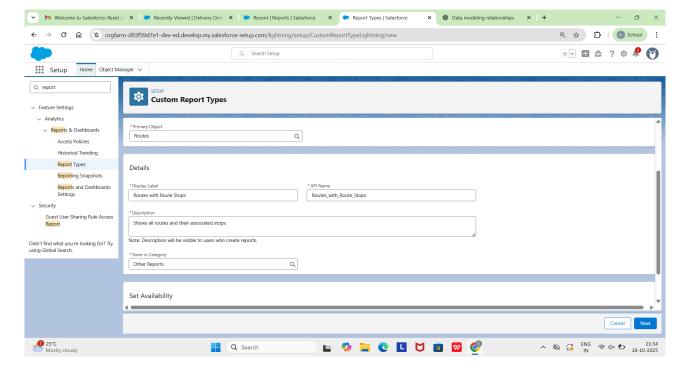
Sample records were created to validate object relationships and workflow triggers. For instance, a new Delivery Order record was created with address and timing details. Similarly, a Route record was created linking driver and vehicle information.





Step 6: Custom Report Types

A custom report type was created under Setup \rightarrow Reports & Dashboards \rightarrow Report Types. The report 'Routes with Route Stops' allows generating combined data insights to monitor route efficiency and stop performance.



Step 7: Automation Tools Overview

Automation tools such as Workflow Rules, Process Builder, and Flows are essential to streamline operations. In this phase, triggers can be used to automatically update Route status when all

associated Route Stops are marked as Completed. Flows may also be introduced to assign drivers dynamically based on route capacity and priority.

Conclusion

In Phase 3 of the Dynamic Route Optimization project, Salesforce automation and app configuration were implemented. The creation of custom tabs, a Lightning App, and schema design ensured better navigation and data integrity. Profiles and permission sets reinforced security and access control. Additionally, the configuration of reports and planned automation workflows set the foundation for efficient delivery management within Salesforce.