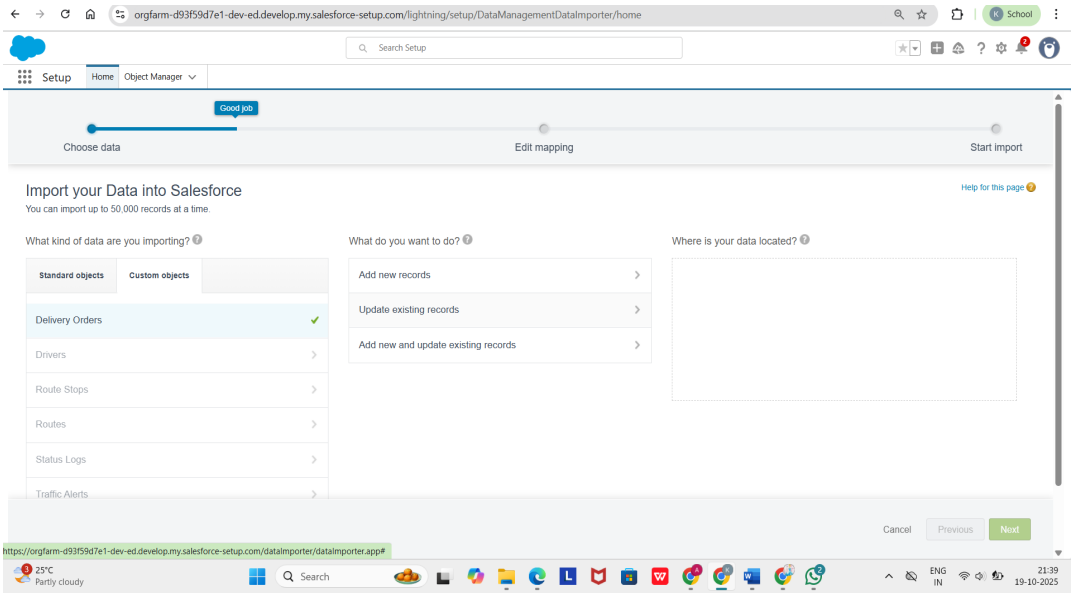
Phase 8: Data Management & Deployment — Dynamic Route Optimization

Data Import Wizard

The Data Import Wizard in Salesforce allows importing up to 50,000 records at a time. It is ideal for importing smaller datasets such as Delivery Orders, Routes, or Drivers. Users can select the object type, upload a CSV file, and map the fields accordingly. Once imported, Salesforce validates and adds the records to the system.

Steps:

1. Go to Setup → Data Import Wizard.
2. Select the object to import, e.g., Delivery Orders.
3. Choose the operation: Add, Update, or Upsert records.
4. Upload your CSV file and map fields.
5. Start the import and verify results from Bulk Data Jobs.



Data Loader

Salesforce Data Loader is a client application used for large-scale data operations (up to 5 million records). It is useful for inserting, updating, upserting, deleting, or exporting data. It ensures efficient data handling for Delivery Orders and Route records in bulk.

Steps:

1. Install Data Loader from Setup → Data Management.
2. Login using Salesforce credentials and security token.
3. Select the operation (Insert, Update, Delete, Export).
4. Choose the object and upload the CSV file.
5. Map fields and execute the operation.

6. Review success and error logs for confirmation.

Duplicate Rules

Duplicate Rules help maintain data accuracy by preventing duplicate Delivery Orders or Routes. They compare new and existing records based on selected fields and either alert or block duplicates.

Steps:

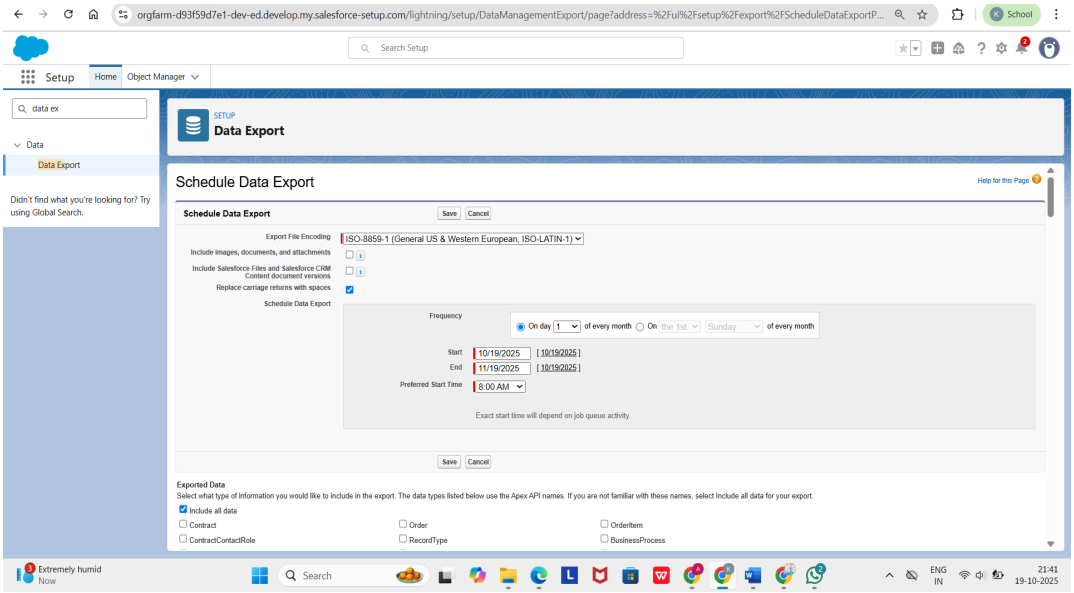
1. Go to Setup → Duplicate Management → Duplicate Rules.
2. Choose the object, such as Delivery Order.
3. Define matching criteria (e.g., Order Number or Route Name).
4. Select the action to either allow, alert, or block duplicates.
5. Activate the rule.

Data Export & Backup

Data Export allows administrators to schedule periodic backups of Salesforce data. This helps ensure data safety and recovery in case of accidental deletions or corruption. Data can be exported manually or automatically on a weekly or monthly basis.

Steps:

1. Go to Setup → Data Export.
2. Choose frequency (Weekly or Monthly).
3. Select the objects to include (e.g., Delivery Orders, Routes).
4. Set the schedule and preferred time.
5. Salesforce sends an email with download links for exported files.



Change Sets

Change Sets are used to deploy customizations such as Apex Classes, Triggers, and Objects from one Salesforce environment to another, like from Sandbox to Production. It simplifies deployment without manual migration.

Steps:

1. Setup → Outbound Change Sets → New.
2. Add necessary components (Objects, Classes, Flows).
3. Upload the Change Set to the target org.
4. In target org, go to Inbound Change Sets and deploy.

Unmanaged vs Managed Packages

Packages help distribute Salesforce components. Unmanaged packages are editable and used for testing or open-source distribution. Managed packages are locked and ideal for deploying commercial apps or final versions of a project.

ANT Migration Tool

The ANT Migration Tool is a command-line utility for deploying metadata between Salesforce orgs. It is efficient for automated CI/CD workflows.

Steps:

1. Install Apache ANT on your system.
2. Create build.xml and package.xml files to define deployment targets.
3. Authenticate your Salesforce org using credentials.
4. Use command `ant deployCode` to migrate metadata.
5. Review logs to confirm successful deployment.

VS Code & SFDX

Salesforce CLI (SFDX) integrated with Visual Studio Code enables modern Salesforce development. It allows developers to create, retrieve, and deploy metadata efficiently.

Steps:

1. Install Visual Studio Code and Salesforce CLI.
2. Authorize your org using:
sfdx auth:web:login -a DevOrg
3. Retrieve metadata with:
sfdx force:source:retrieve -u DevOrg -m ApexClass,Trigger
4. Deploy components using:
sfdx force:source:deploy -u DevOrg -p force-app
5. Use version control (Git) for team collaboration.