

# Phase 8: Data Management & Deployment

## Goal :

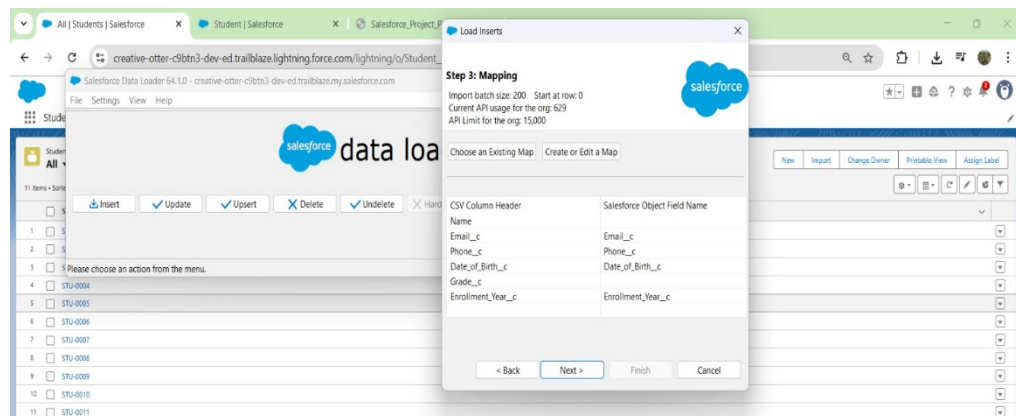
To efficiently manage, migrate, and secure student data and metadata across Salesforce environments using native tools, packages, and modern deployment methods.

### 1. Data Import Wizard

- Imported sample student records and related data through the Salesforce UI.
- Validated successful import with list views and reports.
- Documented mapping fields for reusability.

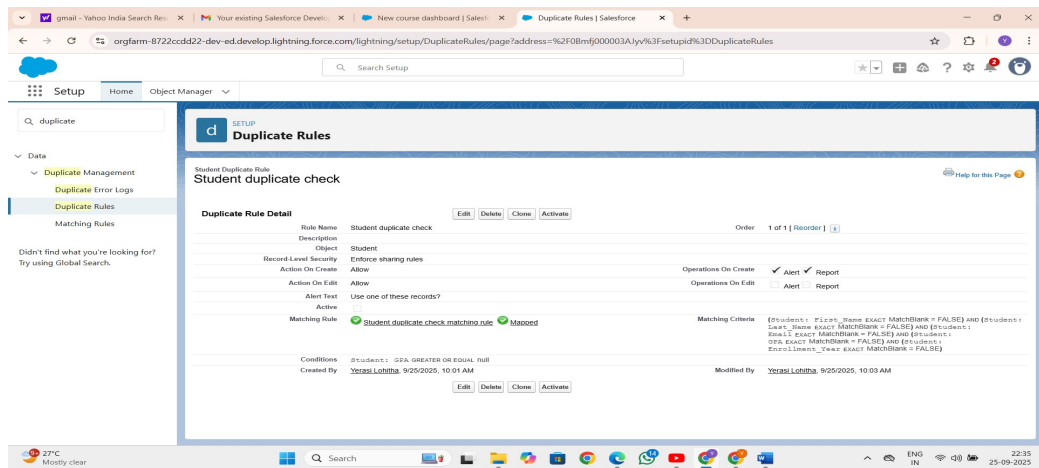
### 2. Data Loader

- Performed bulk inserts, updates, and deletes for large datasets.
- Created CSV templates for Student and Course objects.
- Logged and reviewed success/error CSVs for audit.



### 3. Duplicate Rules

- Defined matching rules to detect duplicate student records.
- Configured duplicate rules to block or allow with alerts.
- Tested with sample data to ensure data quality.



#### 4. Data Export & Backup

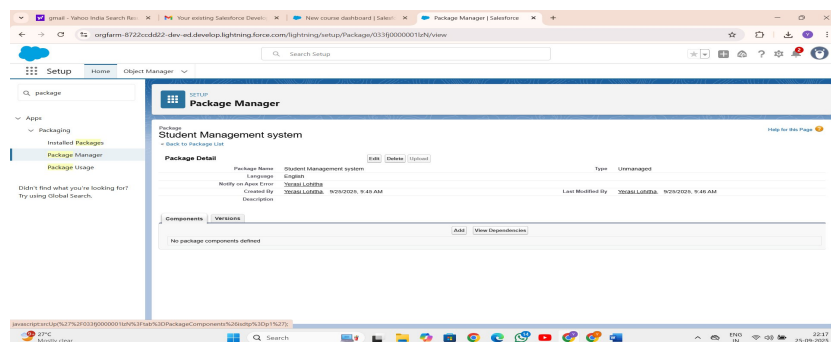
- Scheduled weekly data export from Setup for backup.
- Downloaded CSVs of critical objects (Students, Courses, Enrollments).
- Stored backup securely for rollback scenarios.

#### 5. Change Sets

- Created outbound change sets with custom objects and fields.
- Uploaded change sets to target sandbox and deployed.
- Validated deployment results post-migration.

#### 6. Unmanaged vs Managed Packages

- Built an unmanaged package containing custom objects for sharing.
- Created a managed package to test namespace and code protection.
- Installed both in a new org and documented differences.



#### 7. ANT Migration Tool

- Configured build.xml and package.xml for metadata retrieval.
- Retrieved custom object and Apex class metadata from source org.
- Deployed changes to target org and validated success logs.

## 8. **VS Code & SFDX**

- Set up VS Code project with Salesforce CLI and authorized orgs.
- Retrieved metadata using sf project retrieve start.
- Modified and deployed changes back using sf project deploy start.