# Phase 8: Data Management & Deployment

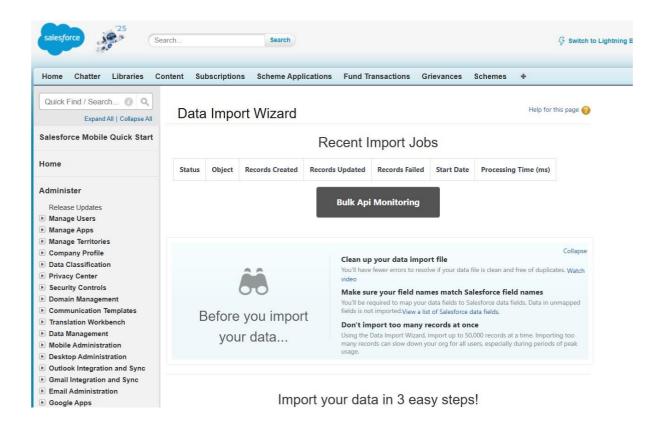## Data Import Wizard

The Data Import Wizard in Salesforce allows importing records for standard and custom objects.

For this project, government scheme-related data such as **Schemes, Scheme Applications, Fund Transactions, and Grievances** can be imported into their respective custom objects with the defined fields:
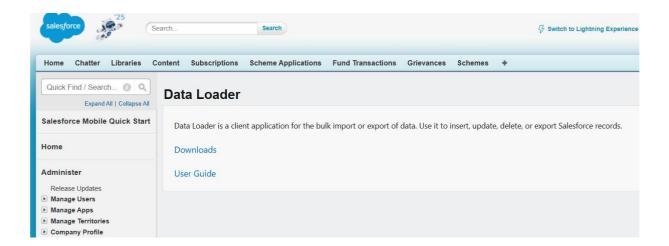
- **Schemes**: Scheme Code, Scheme Name, Description, Eligibility Criteria, Start Date, End Date, Max Amount, Active

- **Scheme Applications**: Application Name, Citizen Email, Citizen User, Contact, Requested Amount, Approved Amount, Date, Stage, Scheme

- **Fund Transactions**: Fund Transaction Name, Amount, Payment Date, Payment Status, Scheme Application

- **Grievances**: Grievance Name, Category, Contact, Resolution Notes, Scheme Application

This helps in populating sample/test data during development.

## Data Loader

Data Loader is used for bulk data import, export, update, and deletion.
In this project, **bulk Scheme Applications, Fund Transactions, and Grievances** can be uploaded through Data Loader using CSV files mapped to the above fields.



## Duplicate Rules

Duplicate rules prevent the creation of duplicate records in the system. Duplicate Rules were created for each custom object to ensure no duplicate entries are allowed.

### 1. Scheme Duplicate Rule

- Prevent duplicate scheme records based on Scheme Code.

- **Action on Create:** Alert

- **Action on Edit:** Alert

- **Matching Criteria:** Scheme Code__c field checked to prevent duplication

### 2. Scheme Application Duplicate Rule

- Prevent duplicate applications for the same citizen and scheme.

- **Action on Create:** Alert

- **Action on Edit:** Alert

- **Matching Criteria:** Citizen Email__c + Scheme__c fields checked to prevent duplication
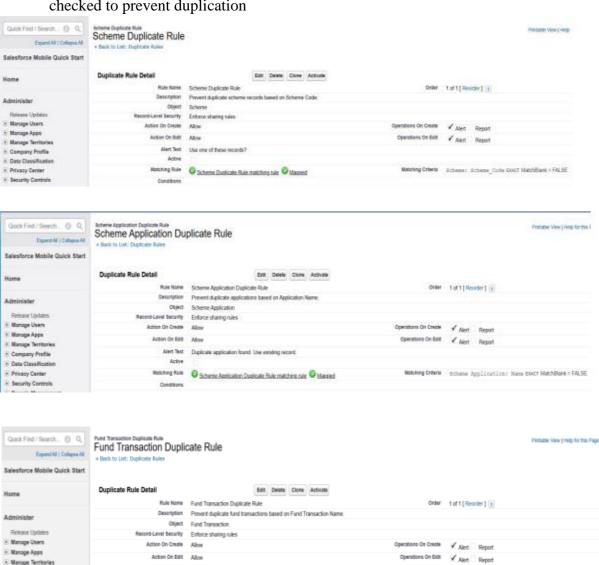
### 3. Fund Transaction Duplicate Rule

- Prevent duplicate fund transactions for the same application on the same date and amount.

- **Action on Create:** Alert

- **Action on Edit:** Alert

- **Matching Criteria:** Payment Date__c + Amount__c + Scheme Application__c fields checked to prevent duplication

## 4. Grievance Duplicate Rule

- Prevent duplicate grievances for the same citizen, scheme application, and category.

- **Action on Create:** Alert

- **Action on Edit:** Alert

- **Matching Criteria:** Citizen__c + Scheme Application__c + Category__c fields checked to prevent duplication

## Data Export & Backup

Regular data exports are required for backup.
For this project, **Schemes, Scheme Applications, Fund Transactions, and Grievances** data can be exported periodically to maintain historical records and ensure data safety.



Your Organization Data Export has completed - Govt Schemes Management System – Dev

Inbox x

**Do not reply** <noreply@salesforce.com>                    8:43 PM (33 minutes ago)
to me ▾

The export of your organization's data has been completed. Please click on the following link within the next 48 hours to receive the export.

https://rvrjccollegeofengineering72-dev-ed.develop.my.salesforce.com/ui/setup/export/DataExportPage/d

Thank you,
Salesforce

## Change Sets

Change Sets are used to migrate metadata between orgs (Sandbox → Production).
For this project, Change Sets can be used to deploy:

- Custom objects (**Schemes, Scheme Applications, Fund Transactions, Grievances**)

- Custom fields defined in each object

- Flows, email alerts, and other automation

## Unmanaged vs Managed Packages

- **Managed Packages**: Pre-built solutions from Salesforce AppExchange with limited customization.

- **Unmanaged Packages**: Provide full access to configuration and code.

For this project, no external packages were used. All objects, fields, and automation were custom-built.

## ANT Migration Tool

The ANT Migration Tool is a command-line utility for metadata deployment.
For this project, it was **not required**, as all development was done in a single Salesforce org.

**VS Code & SFDX**

VS Code with Salesforce DX allows advanced development and deployment.
In this project, **all development was done directly in Salesforce UI**, so VS Code and SFDX were not used.