

# Salesforce Project Phase 8

## Smart Education & E-Learning Management System

### Phase 8: Data Management & Deployment

#### 1. Data Import Wizard

Purpose: Import new records into Salesforce using the UI-based wizard.

Steps:

1. Setup → Data Import Wizard → Launch Wizard.
2. Selected objects: Students, Courses, Assignments.
3. Chose operation: Add New Records or Update.
4. Prepared CSV files (with headers = Salesforce API field names).
5. Mapped fields manually (e.g., Student External ID, Course Lookup).
6. Started import → Monitored progress → Checked success/error report.

Tips:

- Used External ID (External\_ID\_\_c) on Student for safe upserts.
- Ensured required fields like Name, Email, and Course Lookup were filled.
- Verified lookups (Course\_\_c, Student\_\_c) matched existing records.

#### 2. Data Loader

Purpose: Bulk import/update/export records.

Status: Skipped in Developer Edition (since Data Loader not available).

Instead used Data Import Wizard for all inserts and updates.

#### 3. Duplicate Rules

Purpose: Maintain data quality by preventing duplicate Students or Courses.

Steps:

- Created Matching Rule on Student → matched by Email / External ID.
- Created Duplicate Rule on Student → blocked duplicate records during import.
- Activated rule and tested by attempting to insert a duplicate Student.

#### 4. Data Export & Backup

Purpose: Backup Salesforce data before making changes.

Steps:

1. Setup → Data Export → Export Now.
2. Selected objects: Students, Courses, Assignments.
3. Included attachments/files.
4. Downloaded .zip backup folder (e.g., backup\_DE\_2025-09-27).

Tips:

- Maintained backups in versioned folders.
- Stored safely for recovery if import failed.

#### 5. Change Sets

Purpose: Deploy metadata from Sandbox → Production.

Status: Skipped. Developer Edition has no Sandbox/Prod separation.

All metadata managed directly in DE org.

#### 6. Unmanaged vs Managed Packages

Learning Point:

- Unmanaged Packages → editable in target org, used for sharing project code.
- Managed Packages → upgradeable, AppExchange distribution.
- For this project, unmanaged approach is more suitable (for learning & portability).

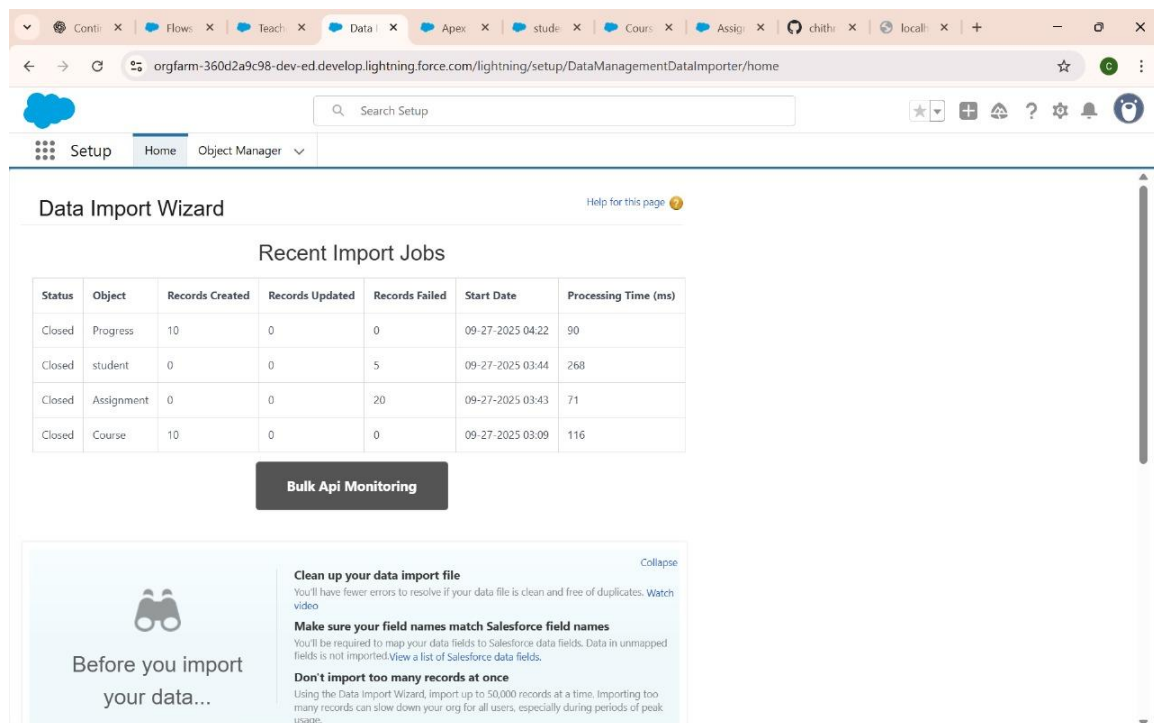
## 7. VS Code & SFDX

Purpose: Source-driven development & version control.

Steps:

1. Installed VS Code + Salesforce Extension Pack.
2. Installed Salesforce CLI (SFDX).
3. Opened Command Palette → SFDX: Create Project (Manifest project optional).
4. Authorized org → `sfdx force:auth:web:login -a MyDE`.
5. Retrieved metadata (Objects, Apex, Flows) → `sfdx force:source:pull -u MyDE`.
6. Made local changes and pushed back → `sfdx force:source:push -u MyDE`.
7. Ran Apex Tests via Test Explorer in VS Code.
8. Maintained local backup of metadata for safe future edits.

## Snapshots:



The screenshot shows the Salesforce Data Import Wizard interface. At the top, there's a navigation bar with 'Setup', 'Home', and 'Object Manager'. The main heading is 'Data Import Wizard'. Below it, there's a section titled 'Recent Import Jobs' with a table showing the status of various imports.

Status	Object	Records Created	Records Updated	Records Failed	Start Date	Processing Time (ms)
Closed	Progress	10	0	0	09-27-2025 04:22	90
Closed	student	0	0	5	09-27-2025 03:44	268
Closed	Assignment	0	0	20	09-27-2025 03:43	71
Closed	Course	10	0	0	09-27-2025 03:09	116

Below the table is a 'Bulk Api Monitoring' button. At the bottom, there's a section titled 'Before you import your data...' with a binoculars icon. It contains three key points:

- Clean up your data import file**: You'll have fewer errors to resolve if your data file is clean and free of duplicates. Watch video
- Make sure your field names match Salesforce field names**: You'll be required to map your data fields to Salesforce data fields. Data in unmapped fields is not imported. View a list of Salesforce data fields.
- Don't import too many records at once**: Using the Data Import Wizard, import up to 50,000 records at a time. Importing too many records can slow down your org for all users, especially during periods of peak usage.

Conti x Flows x Teach x Data x Apex x stude x Cours x Assig x chithr x local x +

orgfarm-360d2a9c98-dev-ed.develop.lightning.force.com/lightning/setup/DataManagementDataImporter/home

Search Setup

Setup Home Object Manager

Almost done

Choose data Edit mapping Start import

### Edit Field Mapping: Courses

Your file has been auto-mapped to existing Salesforce fields, but you can edit the mappings if you wish. Unmapped fields will not be imported.

Edit	Mapped Salesforce Object	CSV Header	Example	Example	Example
Change	Courses name	Courses_Name	Java Basics	Advanced Java	Data Structures
Change	Courses_Code	Courses_Code	JB101	AJ201	DS301
Change	Duration	Duration	6 Weeks	8 Weeks	10 Weeks
Change	Credits	Credits	4	6	5

Cancel Previous Next

Conti x Flows x Teach x Data x Apex x stude x Cours x Assig x chithr x local x +

orgfarm-360d2a9c98-dev-ed.develop.lightning.force.com/lightning/setup/DataManagementDataImporter/home

Search Setup

Setup Home Object Manager

Great job

Choose data Edit mapping Start import

### Review & Start Import

Review your import information and click Start Import.

**Your selections:**

Courses ✓  
Add new records ✓  
Courses.csv ✓

**Your import will include:**

Mapped fields  
4

**Your import will not include:**

Unmapped fields  
0

Cancel Previous Start Import

https://orgfarm-360d2a9c98-dev-ed.develop.lightning.force.com/dataImporter/dataImporter.app#

Continue phase 8 step 2

Teacher Po

Course | S

Teacher Po

Assignment

Home | S

chithras18

SB\_TCS VII

orgfarm-360d2a9c98-dev-ed.develop.lightning.force.com/lightning/setup/AsyncApiJobStatus/page?address=%2F750gK00000DxCX7QAN

Search Setup

SetupHomeObject Manager

data im

IntegrationsData Import Wizard

Didn't find what you're looking for? Try using Global Search.

SETUPBulk Data Load Jobs

Bulk Data Load Job750gK00000DxCX7

View the details of a bulk data load job.

Back to List: Bulk Data Load Jobs

Bulk Data Load Job Detail

Reload

Job ID	750gK00000DxCX7	Job Type	Bulk V1	Status	Closed
Submitted By	Chithra S	Operation	Insert	Total Processing Time (ms)	71
Start Time	9/27/2025, 8:43 AM PST	Queued Batches	0	API Active Processing Time (ms)	8
End Time	9/27/2025, 8:43 AM PST	In Progress Batches	0	Apex Processing Time (ms)	0
Time to Complete (hh:mm:ss)	00:02	Completed Batches	1		
Object	Assignment	Failed Batches	0		
External ID Field		Progress	100%		
Content Type	CSV	Records Processed	20		
Concurrency Mode	Parallel	Records Failed	20		
API Version	64.0	Retries	0		

Continue phase 8 step 2

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Home | Salesforce

Matching Rules | Salesforce

orgfarm-360d2a9c98-dev-ed.develop.lightning.force.com/lightning/setup/MatchingRules/page?address=%2F0JD%2Fe%3FretURL%3D%252F0JD

Search Setup

SetupHomeObject Manager

matching

DataDuplicate ManagementMatching Rules

Didn't find what you're looking for? Try using Global Search.

SETUPMatching Rules

New Matching Rulestudent

Step 2 of 2: Configure Matching Rule

PreviousSaveCancel

Rule Details

Required Information

Objectstudent

Rule NameMatch student by ID

Unique NameMatch\_student\_by\_ID

Description

Matching Criteria

Tell the rule which fields to compare and how.

Fieldstudent EmailMatching MethodExactMatch Blank FieldsAND

