

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

- Go to Setup → Data Import Wizard in Salesforce.
- Select the object (Student, Faculty, Course).
- Upload the CSV file containing sample data.
- Map CSV columns to Salesforce fields.
- Click Start Import.
- Verify import success via list views and reports.

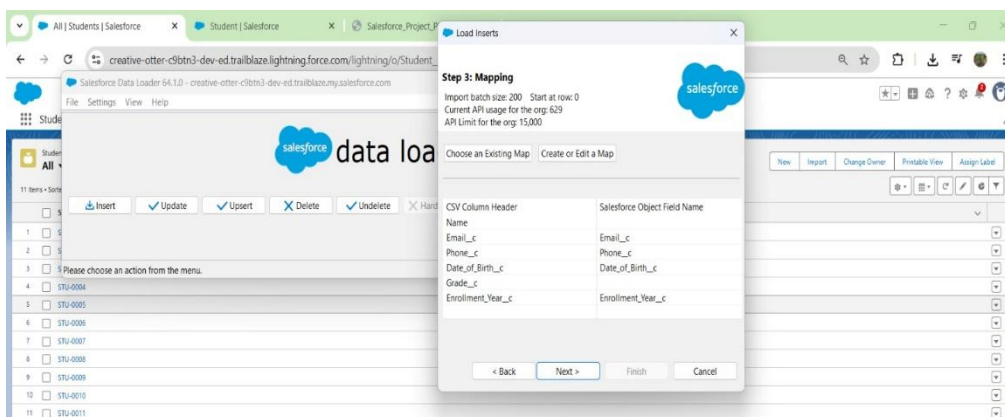
B2 john.doe@example.com

	A	B	C	D
1	Student Name	Email	DOB	Course(Lookup)
2	John Doe	john.doe@example.com	15/11/2002	Electronics
3	Jane Smith	jane.smith@example.com	7/7/2004	python
4	Michael Brown	michael.brown@example.com	5/10/2005	java
5	Alice Green	alice.green@example.com	5/12/2004	c
6	Robert Black	robert.black@example.com	12/4/2003	html
7				
8				
9				
0				
1				
2				
3				
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Clipboard Font					
A1		fx Id			
	A	B	C	D	E
1	Id	Success	Created	Error	
2	a01gL0000	TRUE	TRUE		
3	a01gL0000	TRUE	TRUE		
4	a01gL0000	TRUE	TRUE		
5	a01gL0000	TRUE	TRUE		
6	a01gL0000	TRUE	TRUE		
7					
8					
9					
10					

2. Data Loader (Optional for Bulk Operations)


- Download and install Data Loader.
- Open Data Loader → Insert → Log in to Salesforce.
- Choose the object (Student, Faculty, Course).
- Browse and select the CSV file.
- Map CSV columns to Salesforce fields.
- Click Next → Finish → OK.
- Review success and error CSVs for audit.



3. Duplicate Rules

- Go to Setup → Duplicate Management → Matching Rules.
- Create rules to detect duplicate student records.
- Configure Duplicate Rules to block or alert duplicates.
- Test with sample data to ensure data quality.

Your Salesforce matching rule is now activated Inbox x

 **Salesforce Duplicate Management (noreply@salesforce.com)** <noreply@salesforce.com>
to me ▾


Hello Maktumsabgari Juha Fathima,

Your matching rule Duplicate prevention for identifying duplicate records has been activated and is now ready to use.

Salesforce Duplicate Management

You're registered as zuhaf8899@gmail.com in CodeSphere Institute Of Technology. Need help? Contact Salesforce Customer Support.

Imission Date

_____ 

oto


udent ID

ourse

Search Courses


udent Status

--None--

 **Similar Records Exist** ×

This record looks like an existing record. Make sure to check any potential duplicate records before saving.

[View Duplicates](#)

 Cancel Save & New Save

4. Data Export & Backup

- Go to Setup → Data Export.
- Schedule weekly export of critical objects (Students, Courses, Enrollments).
- Download CSVs and store securely for rollback.

The screenshot shows the 'Schedule Data Export' configuration window. At the top, there are 'Save' and 'Cancel' buttons. Below them, the 'Export File Encoding' is set to 'ISO-8859-1 (General US & Western European, ISO-LATIN-1)'. There are three checkboxes: 'Include images, documents, and attachments' (checked), 'Include Salesforce Files and Salesforce CRM Content document versions' (unchecked), and 'Replace carriage returns with spaces' (checked). The 'Schedule Data Export' section contains a 'Frequency' dropdown set to 'On day 1 of every month'. Below this, there are fields for 'Start' (9/25/2025), 'End' (10/25/2025), and 'Preferred Start Time' (9:00 AM). A note at the bottom states: 'Exact start time will depend on job queue activity.'

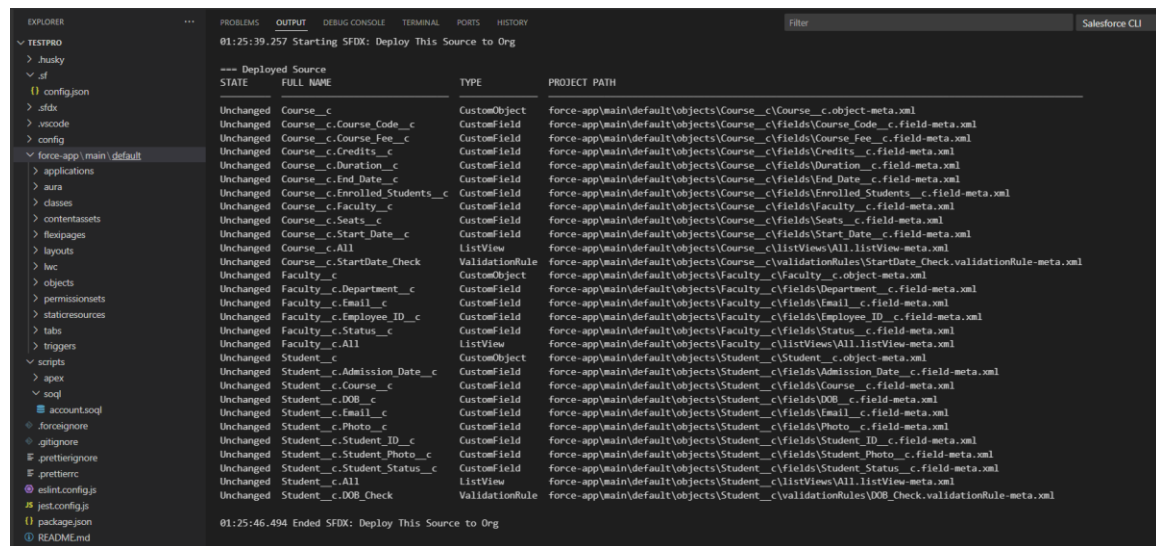
5. Deploy Metadata

Option A: VS Code & Salesforce CLI

- Move your project to a local folder (avoid OneDrive).
- Open VS Code and authorize org:
`sf org login web --alias SourceOrg --set-default`
- Retrieve metadata (Student, Course, Faculty objects):
`sf project retrieve start --metadata CustomObject:Student__c --metadata CustomObject:Course__c --metadata CustomObject:Faculty__c`
- Verify retrieved files in `force-app/main/default/objects/`.
- Deploy to target org:
`sf project deploy start --source-dir force-app/main/default`
- Confirm success in terminal or VS Code output.

Option B: Change Sets

- In Source Org → Setup → Outbound Change Set → New.
- Add components (objects, fields, Apex classes).
- Upload to target org → Inbound Change Set → Deploy → Validate.



6. ANT Migration Tool

- Configure build.xml and package.xml.
- Retrieve custom object and Apex class metadata from source org.
- Deploy changes to target org.
- Validate success logs.

7. Notes & Best Practices

- Always retrieve metadata to a local folder, not OneDrive, to avoid empty folders.
- Verify all fields, list views, and validation rules are retrieved.
- Keep backups of CSV files and metadata.
- Use CLI commands with correct syntax in new Salesforce CLI (sf).