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

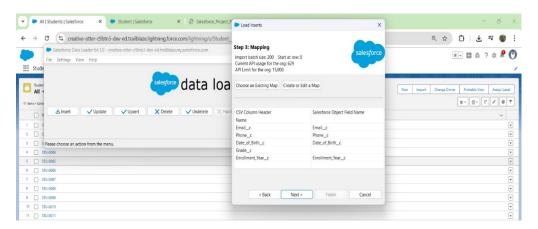
- Go to Setup → Data Import Wizard in Salesforce.
- Select the object (Student, Faculty, Course).
- Upload the CSV file containing sample data.
- Map CSV columns to Salesforce fields.
- Click Start Import.
- Verify import success via list views and reports.

	B2 ▼ john.doe@example.com								
4	А	В	С	D					
	Student Name	<u>Email</u>	DOB	Course(Lookup)					
2	John Doe	john.doe@example.com	15/11/2002	Electronics					
}	Jane Smith	jane.smith@example.com	7/7/2004	python					
Ļ	Michael Brown	michael.brown@example.com	5/10/2005	java					
;	Alice Green	alice.green@example.com	5/12/2004	С					
)	Robert Black	robert.black@example.com	12/4/2003	html					
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	А	В	С	D	Е
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		
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9					
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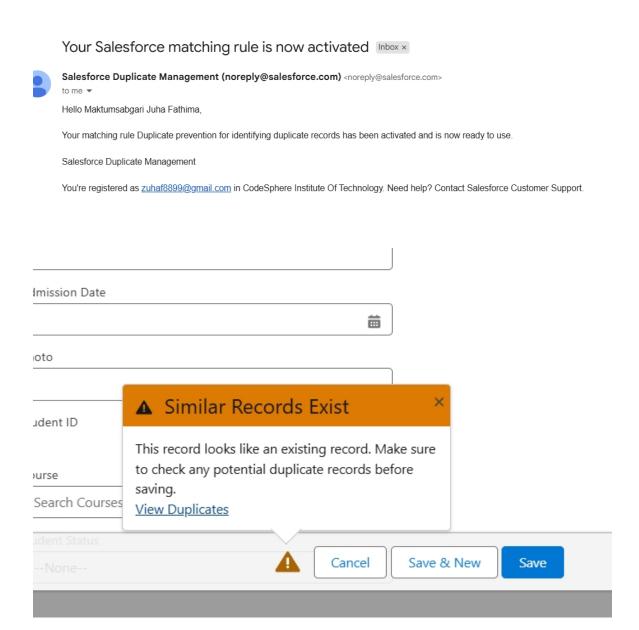
2. Data Loader (Optional for Bulk Operations)

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



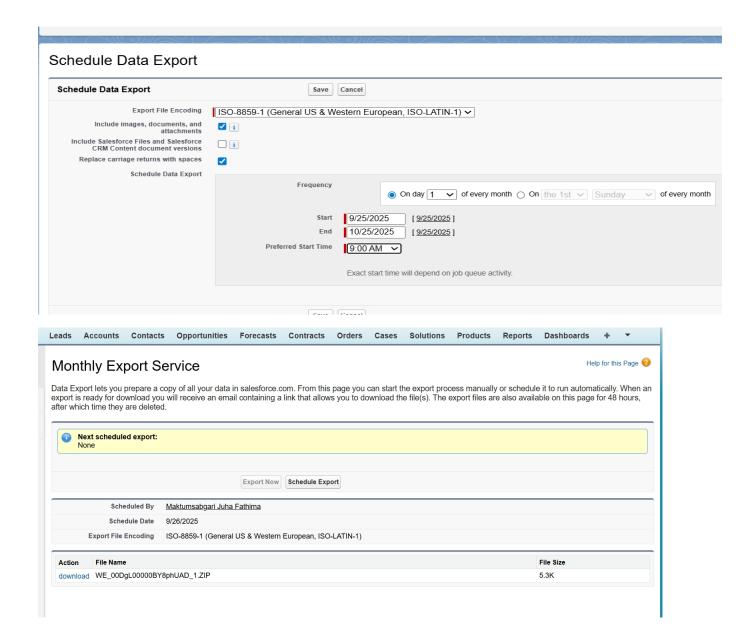
3. Duplicate Rules

- 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.



4. Data Export & Backup

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



5. Deploy Metadata

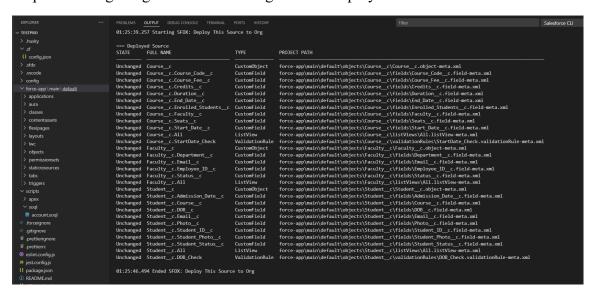
Option A: VS Code & Salesforce CLI

- 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 \rightarrow Setup \rightarrow Outbound Change Set \rightarrow New.
- Add components (objects, fields, Apex classes).
- Upload to target org \rightarrow Inbound Change Set \rightarrow Deploy \rightarrow 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).