Project Title – “Smart Subscription Tracker”

Phase 8: Data Management & Deployment

Data Import Wizard-

In Salesforce (Lightning): click Setup (⚙).

Quick Find → type Data Import Wizard → click it.

Click Launch Wizard (or Open Data Import Wizard).

Scroll to the relevant object area: choose Standard Objects or Custom Objects → Subscription__c.

Choose the action: Add new records, Update existing records, or Add new and update existing.

Upload your CSV file for the object you selected.

Field mapping & lookups

After upload the wizard auto-maps columns to fields. Verify each mapping.

For Account lookup on subscriptions, map your CSV column Account_External_ID__c to Account → External_ID__c (or to Account Id if you used Salesforce Ids).

Double-check date, picklist and number mappings.

When ready, click Start Import (or Next → Start Import).

Bulk Data Load Job Detail Reload

Job ID	750gK00000DiJQs	Job Type	Bulk V1	Status	Closed
Submitted By	varun nema	Operation	Upsert	Total Processing Time (ms)	116
Start Time	9/24/2025, 11:12 AM PST	Queued Batches	0	API Active Processing Time (ms)	31
End Time	9/24/2025, 11:12 AM PST	In Progress Batches	0	Apex Processing Time (ms)	0
Time to Complete (hh:]mm:ss)	00:02	Completed Batches	1		
Object	Subscription	Failed Batches	0		
External ID Field	Name	Progress	100%		
Content Type	CSV	Records Processed	3		
Concurrency Mode	Parallel	Records Failed	0		
API Version	64.0	Retries	0		

Reload

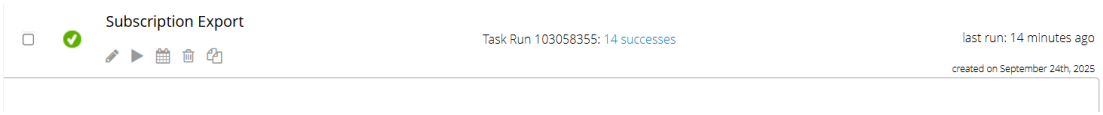
Batches

View Request	View Result	Batch ID	Start Time	End Time	Total Processing Time (ms)	API Active Processing Time (ms)	Apex Processing Time (ms)	Records Processed	Records Failed	Retry Count	State Message	Status
View Request	View Result	751gK00000B6ICS	9/24/2025, 11:12 AM	9/24/2025, 11:12 AM	116	31	0	3	0	0		Completed

Data loader-

➢ Data export

- In Data Loader choose **Export**.
- Select object **Account**.
- Click **Browse…** to choose a CSV output path.
- Use SOQL query or select fields: `Id, Name` (or `Id, Name, BillingCity` if helpful).
- Click **Next** → **Finish**. Open the CSV and match names to Ids for use in the Subscriptions file.

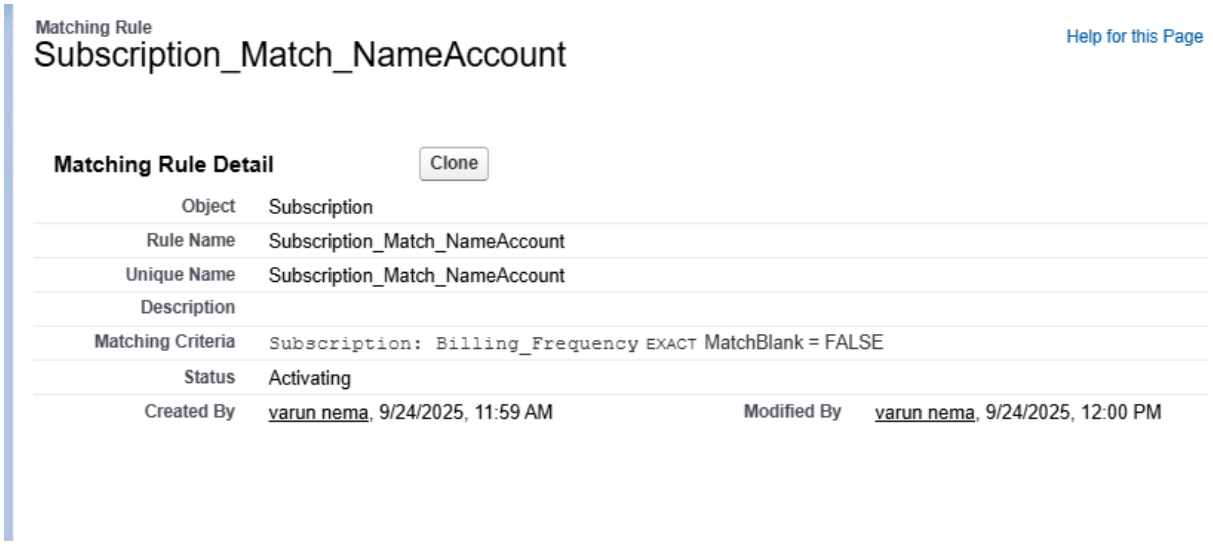


Record ID	Account	Discount__c	End Date	Price	Start Date	Status
a01gK00000L4caU	001gK00000L4caTQAR		09/19/2025		09-10-2025	Expired
a01gK00000L4caV	001gK00000L4caTQAR		09/30/2025		09/20/2025	Draft
a01gK00000L4caW	001gK00000L4caTQAR				09/20/2025	Draft
a01gK00000L4lh1(	001gK00000L4lh0QAB		09/19/2025		09-10-2025	Expired
a01gK00000L4lh2(	001gK00000L4lh0QAB		09/30/2025		09/20/2025	Draft
a01gK00000L4lh3(	001gK00000L4lh0QAB				09/20/2025	Draft
a01gK00000L4xS4(	001gK00000L4xS3QAJ		09/19/2025		09-10-2025	Expired
a01gK00000L4xS5(	001gK00000L4xS3QAJ		09/19/2025		09/15/2025	Expired
a01gK00000L4ziO(	001gK00000L4ziNQAR		09/19/2025		09-10-2025	Expired
a01gK00000L4ziPC	001gK00000L4ziNQAR		09/30/2025		09/20/2025	Active
a01gK00000L52ee	001gK00000L52edQAB		09/19/2025		09-10-2025	Expired
a01gK00000L52ef(	001gK00000L52edQAB		09/19/2025		09/15/2025	Expired
a01gK00000LMoq	001gK00000LMoq6QAD		10/17/2025		09/22/2025	Active
a01gK00000LMuXI	001gK00000LMuXKQA1		10/17/2025		09/22/2025	Active

Duplicate Rules

➢ Matching rule

- Setup → Quick Find → Duplicate Management → Matching Rules.
- Click New Rule.
- Select Object = subscription_c.
- Give it a Label: subscription_Match_NamePhone. Add a short description.
- Add matching criteria:
- Field: Account: Name → Matching Method: Fuzzy (or "Approximate/Name" if shown).
- Add another criterion: Account: Phone → Matching Method: Exact.
- Save → then Activate the matching rule (must be active before it's used by a Duplicate Rule).



Duplicate Rule (example: subscription)

Setup → Duplicate Management → Duplicate Rules → New Rule

1. Object: Subscription__c.
2. Rule Name: Subscription_Duplicate_Rule (or similar).
3. Matching Rule: add the Subscription_Match_NameAccount matching rule you just created.
4. Action on Create: Allow — (this lets bulk imports proceed; keeps record creation from being blocked).

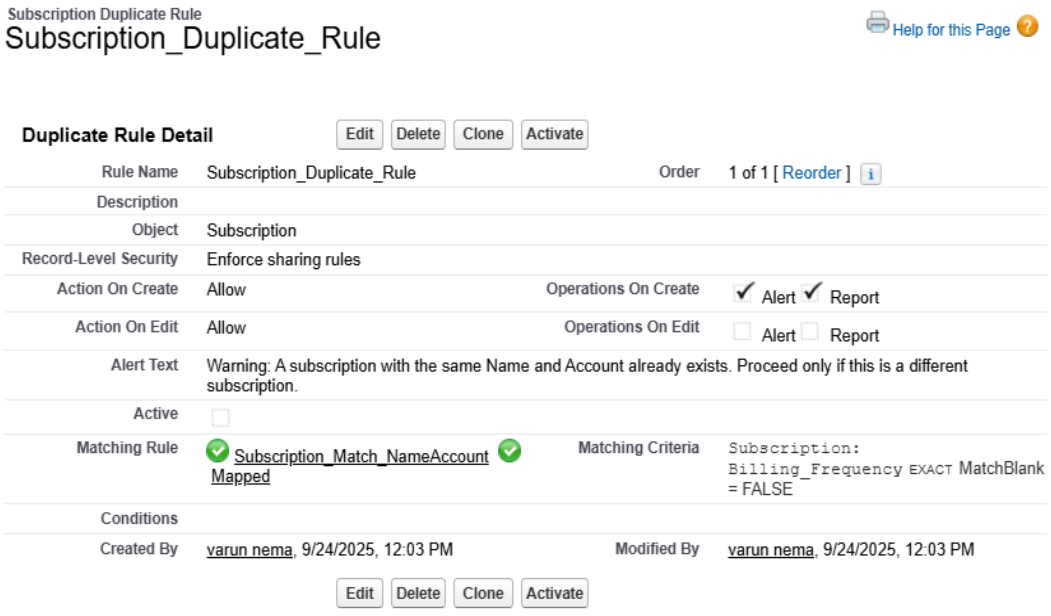
- Optionally Action on Edit: set to Allow (or Block if you want stricter editing controls).

5. Create Duplicate Record Sets (or “Report duplicates” / enable the option that records duplicates): enable this so Salesforce will create *Duplicate Record Set* entries you can review later.

6. Alert Text (optional) — enter a short message to show users during UI creation, for example:
   "Warning: A subscription with the same Name and Account already exists. Proceed only if this is a different subscription."

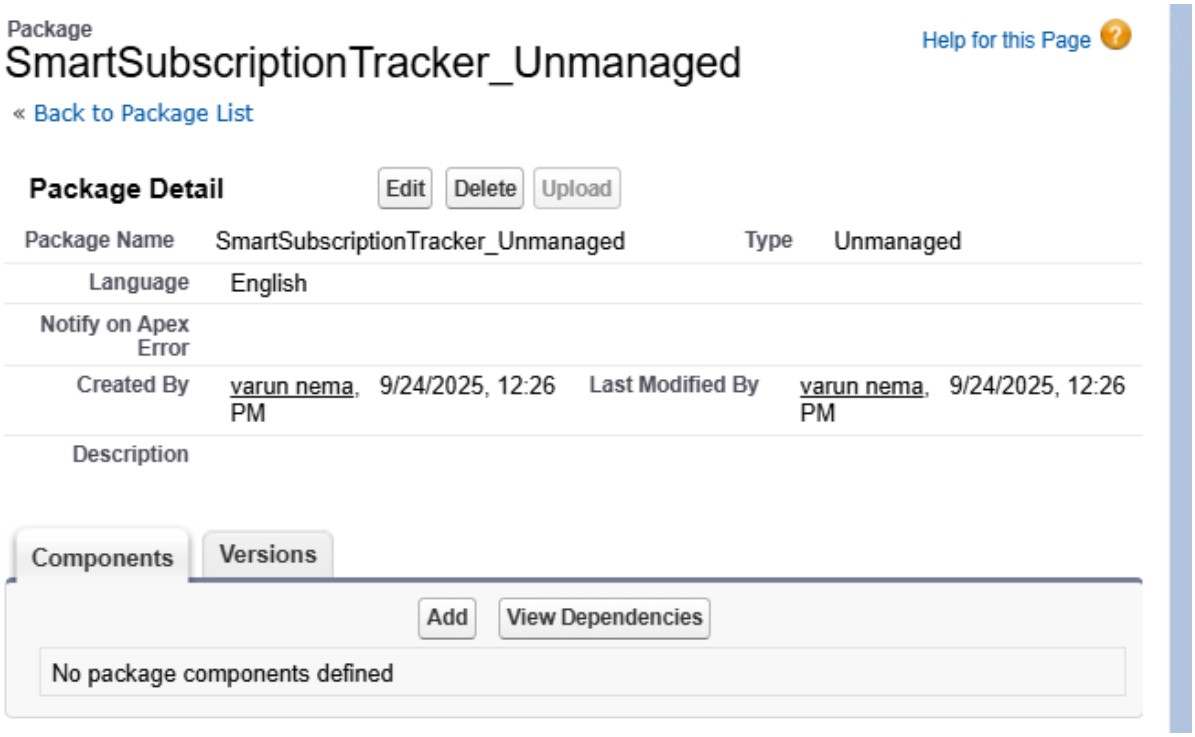
   - This will display when a user tries to create a possible duplicate in the Lightning UI while still allowing the save (because Action on Create = Allow).

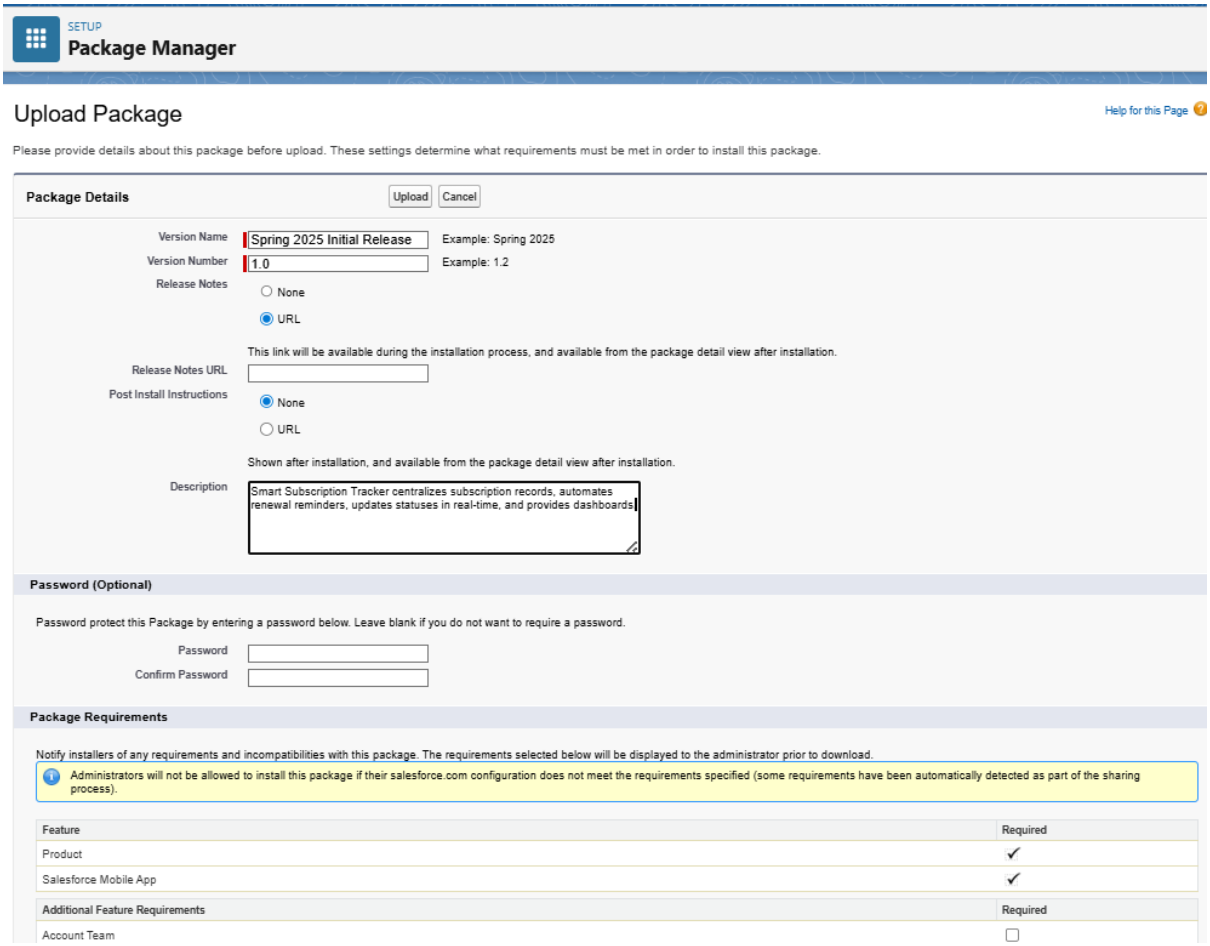
7. Save → Activate the duplicate rule**.**



Unmanaged vs Managed Packages

1. Go to Setup → Quick Find: “Packages” (or “App Manager / Packaging”).
2. Click New → give the package a name (e.g., SmartSubscriptionTracker_Unmanaged) → Save.
3. Open the package and click Add → add components: Custom Object Subscription__c, fields, Apex classes, flows, permission sets, matching & duplicate rules, reports, dashboards, etc. Add everything your app needs.
4. Click Upload → choose Unmanaged (if UI asks) → Upload. Wait until upload completes.
5. Once uploaded, get the Install URL from the package detail page and share with target orgs. Test install in a clean Dev org.
6. After install, run post-install checklist: assign permission sets, check duplicate rule behavior, run automation.





Change Sets

Change Sets are primarily utilized for migrating customizations and configurations between interconnected Salesforce environments, such as from a Sandbox to a Production instance. Since this project was developed entirely within a single Developer Org, environment-to-environment deployment was not required, and therefore Change Sets were not applied.

ANT Migration Tool

The ANT Migration Tool is a command-line–based deployment framework intended for use in large-scale projects, particularly where continuous integration and automated deployments are required. As this project was undertaken as an individual academic build within a single environment, the need for such advanced deployment automation did not arise, and the ANT Migration Tool was not employed.

VS CODE & SFDX

Setting Up the VS code for the Salesforce:

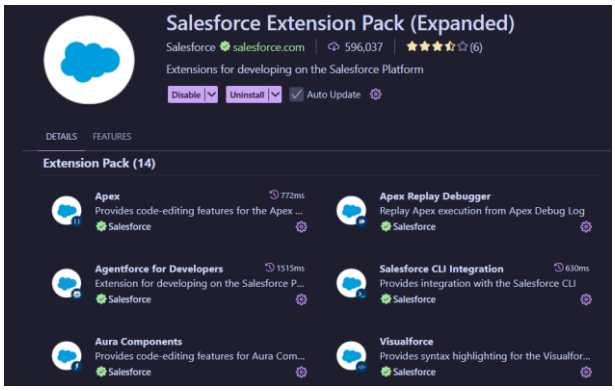
1. Installing JDK (Java Development Kit)

Linux macOS Windows

Product/file description	File size	Download
x64 Compressed Archive	204.30 MB	https://download. 25_windows-x64_
x64 Installer	182.25 MB	https://download. 25_windows-x64_
x64 MSI Installer	181.02 MB	https://download. 25_windows-x64_

2. Installing Salesforce CLI for integration

3. Installing the necessary extensions in VS Code:



4. Authorizing the salesforce org with vs code