

# 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).

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## 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.

<input checked="" type="checkbox"/>	Record ID
<input checked="" type="checkbox"/>	Account
<input type="checkbox"/>	Amount Due
<input type="checkbox"/>	Auto Renew
<input type="checkbox"/>	Billing Frequency
<input type="checkbox"/>	Created By ID
<input type="checkbox"/>	Created Date
<input type="checkbox"/>	Deleted
<input checked="" type="checkbox"/>	Discount__c
<input checked="" type="checkbox"/>	End Date
<input type="checkbox"/>	External_ID__c
<input type="checkbox"/>	Is Expiring Within 7
<input type="checkbox"/>	Last Activity Date
<input type="checkbox"/>	Last Modified By ID
<input type="checkbox"/>	Last Modified Date
<input type="checkbox"/>	Last Referenced Date
<input type="checkbox"/>	Last Viewed Date
<input type="checkbox"/>	Needs End Date
<input type="checkbox"/>	Notes
<input type="checkbox"/>	Payment Status
<input type="checkbox"/>	Plan
<input checked="" type="checkbox"/>	Price
<input type="checkbox"/>	Primary_Contact
<input type="checkbox"/>	Record_Link__c
<input type="checkbox"/>	Reminder Sent
<input type="checkbox"/>	Renewal Required
<input checked="" type="checkbox"/>	Start Date
<input checked="" type="checkbox"/>	Status
<input type="checkbox"/>	Subscription Name
<input type="checkbox"/>	Subscription Number
<input type="checkbox"/>	System Modstamp
<input type="checkbox"/>	Total Paid

✓

Subscription Export

Task Run 103058355: 14 successes

last run: 14 minutes ago  
created on September 24th, 2025

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
a01gK00000L4lh1C	001gK00000L4lh0QAB		09/19/2025		09-10-2025	Expired
a01gK00000L4lh2C	001gK00000L4lh0QAB		09/30/2025		09/20/2025	Draft
a01gK00000L4lh3C	001gK00000L4lh0QAB				09/20/2025	Draft
a01gK00000L4xS4f	001gK00000L4xS3QAJ		09/19/2025		09-10-2025	Expired
a01gK00000L4xS5f	001gK00000L4xS3QAJ		09/19/2025		09/15/2025	Expired
a01gK00000L4ziOC	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
a01gK00000LMoqj	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).

Matching Rule

Subscription\_Match\_NameAccount

Help for this Page

Matching Rule Detail

Clone



Object	Subscription
Rule Name	Subscription_Match_NameAccount
Unique Name	Subscription_Match_NameAccount
Description	
Matching Criteria	Subscription: Billing_Frequency EXACT MatchBlank = FALSE
Status	Activating
Created By	varun nema, 9/24/2025, 11:59 AM
Modified By	varun nema, 9/24/2025, 12:00 PM

## 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.

Subscription Duplicate Rule  [Help for this Page](#) 

**Duplicate Rule Detail** Edit Delete Clone Activate

Rule Name	Subscription_Duplicate_Rule		Order	1 of 1 [ <a href="#">Reorder</a> ] 
Description				
Object	Subscription			
Record-Level Security	Enforce sharing rules			
Action On Create	Allow	Operations On Create	<input checked="" type="checkbox"/> Alert	<input checked="" type="checkbox"/> Report
Action On Edit	Allow	Operations On Edit	<input type="checkbox"/> Alert	<input type="checkbox"/> Report
Alert Text	Warning: A subscription with the same Name and Account already exists. Proceed only if this is a different subscription.			
Active	<input type="checkbox"/>			
Matching Rule	<input checked="" type="checkbox"/> <u>Subscription_Match_NameAccount Mapped</u> 	Matching Criteria	Subscription: Billing_Frequency EXACT MatchBlank = FALSE	
Conditions				
Created By	varun.nema, 9/24/2025, 12:03 PM		Modified By	varun.nema, 9/24/2025, 12:03 PM

Edit Delete Clone Activate

## 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.

Package

SmartSubscriptionTracker\_Unmanaged

[Help for this Page ?](#)

[« Back to Package List](#)

**Package Detail**

Edit

Delete

Upload

Package Name	SmartSubscriptionTracker_Unmanaged	Type	Unmanaged
Language	English		
Notify on Apex Error			
Created By	<a href="#">varun nema</a> , 9/24/2025, 12:26 PM	Last Modified By	<a href="#">varun nema</a> , 9/24/2025, 12:26 PM
Description			

Components

Versions

Add

View Dependencies

No package components defined

SETUP

Package Manager

Upload Package

Help for this Page

Please provide details about this package before upload. These settings determine what requirements must be met in order to install this package.

Package Details

UploadCancel

Version Name

Spring 2025 Initial Release

Example: Spring 2025

Version Number

1.0

Example: 1.2

Release Notes

None

URL

This link will be available during the installation process, and available from the package detail view after installation.

Release Notes URL

Post Install Instructions

None

URL

Shown after installation, and available from the package detail view after installation.

Description

Smart Subscription Tracker centralizes subscription records, automates renewal reminders, updates statuses in real-time, and provides dashboards

Password (Optional)

Password protect this Package by entering a password below. Leave blank if you do not want to require a password.

Password

Confirm Password

Package Requirements

Notify installers of any requirements and incompatibilities with this package. The requirements selected below will be displayed to the administrator prior to download.

Administrators will not be allowed to install this package if their salesforce.com configuration does not meet the requirements specified (some requirements have been automatically detected as part of the sharing process).

Feature	Required
Product	✓
Salesforce Mobile App	✓
Additional Feature Requirements	Required
Account Team	<input type="checkbox"/>

## 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 )

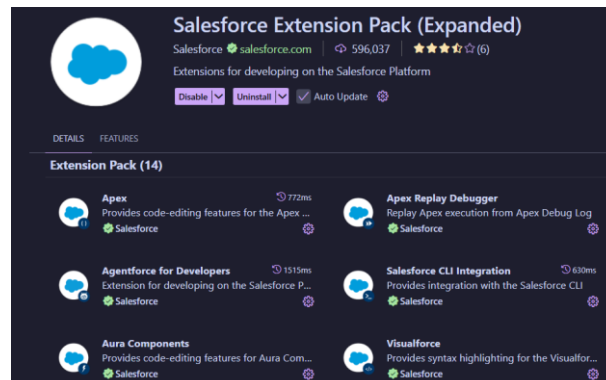
Linux	macOS	Windows
Product/file description	File size	Download
x64 Compressed Archive	204.30 MB	<a href="https://download.oracle.com/otjdp/25/windows-x64/">https://download.oracle.com/otjdp/25/windows-x64/</a>
x64 Installer	182.25 MB	<a href="https://download.oracle.com/otjdp/25/windows-x64/">https://download.oracle.com/otjdp/25/windows-x64/</a>
x64 MSI Installer	181.02 MB	<a href="https://download.oracle.com/otjdp/25/windows-x64/">https://download.oracle.com/otjdp/25/windows-x64/</a>



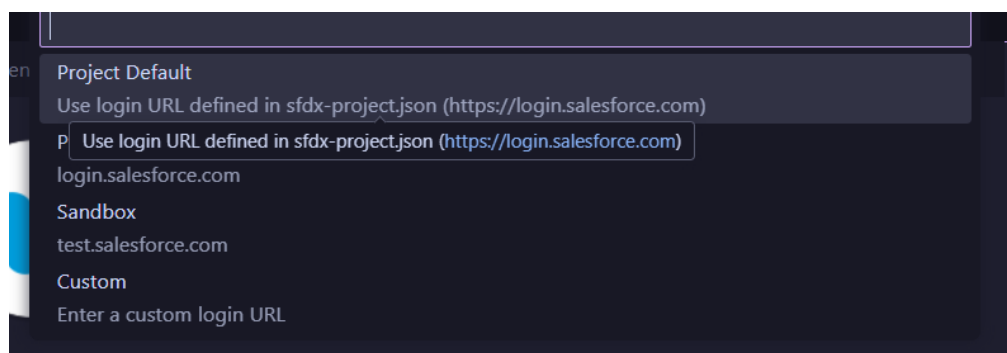
## 2. Installing Salesforce CLI for integration



## 3. Installing the necessary extensions in VS Code:



## 4. Authorizing the salesforce org with vs code



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