Phase 8: Data Management & Deployment

1. Data Import Wizard

Purpose:
Easily import standard and custom object records into Salesforce.

Steps:

1. Go to Setup → Data → Data Import Wizard.

2. Click Launch Wizard.

3. Choose the object to import (e.g., CarbonFootprint__c, Subscription__c).

4. Select CSV file with your data.

5. Map CSV columns to Salesforce fields.

6. Optional: Choose Trigger workflow rules and processes if needed.

7. Click Start Import.

8. Monitor the import status via the Bulk Data Load Jobs link.

Outcome:
All initial data (subscriptions, carbon footprints, users) imported into Salesforce.

2. Data Loader

Purpose:
Bulk import/export data, or perform update/delete operations not possible with Data Import Wizard.
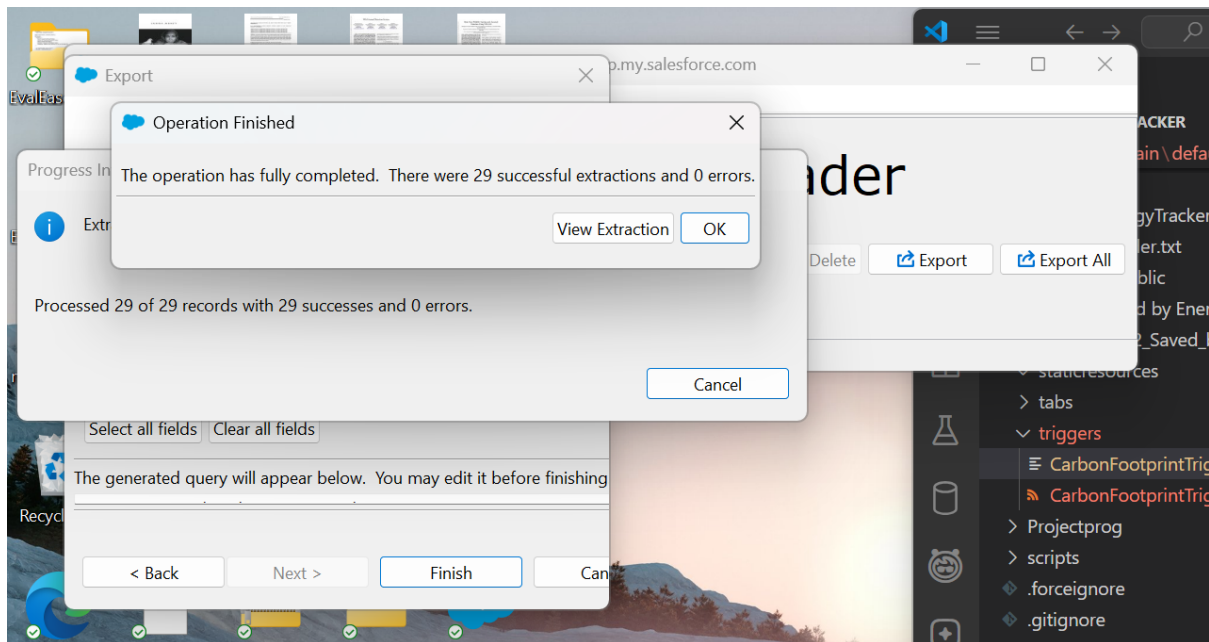
Steps:

1. Download Data Loader: Go to Setup → Data Loader → Download.

2. Install and open Data Loader on your machine.

3. Login with Salesforce credentials (use Security Token if needed).

4. Select CSV file.

5. Map CSV columns to Salesforce fields.

6. Click Finish to start the operation.

7. Check the success.csv and error.csv files for results.

Outcome:
Bulk data management done efficiently.

CSV Viewer

Row Number	CO2_Saved__c	CreatedById	Energy_Type__c	Entry_Date__c
1	70.0	005gK000005CSQfQAO	Wind	2025-09-21T19:00:00.000Z
2	50.0	005gK000005CSQfQAO	Solar	2025-09-21T19:00:00.000Z
3	30.0	005gK000005CSQfQAO		2025-09-21T19:00:00.000Z
4	40.0	005gK000005CSQfQAO	Wind	2025-09-22T18:15:00.000Z
5	70.0	005gK000005CSQfQAO	Solar	2025-09-16T18:15:00.000Z
6	80.0	005gK000005CSQfQAO		2025-09-24T19:00:00.000Z
7	500.0	005gK000005CSQfQAO	Solar	2025-09-22T19:00:00.000Z
8	100.0	005gK000005CSQfQAO	Solar	2025-09-24T19:00:00.000Z
9	300.0	005gK000005CSQfQAO	Solar	2025-09-16T19:00:00.000Z
10	40.0	005gK000005CSQfQAO	Solar	2025-09-23T19:00:00.000Z
11	90.0	005gK000005CSQfQAO	Solar	2025-09-17T19:00:00.000Z
12	60.0	005gK000005CSQfQAO	Solar	2025-09-25T19:00:00.000Z
13	800.0	005gK000005CSQfQAO	Solar	2025-09-17T19:00:00.000Z
14	30.0	005gK000005CSQfQAO	Solar	2025-09-24T19:00:00.000Z
15	90.0	005gK000005CSQfQAO	Solar	2025-09-26T19:00:00.000Z
16	80.0	005gK000005CSQfQAO	Solar	2025-09-25T19:00:00.000Z
17	30.0	005gK000005CSQfQAO	Wind	2025-09-26T19:00:00.000Z
18	40.0	005gK000005CSQfQAO	Solar	2025-09-25T19:00:00.000Z
19	70.0	005gK000005CSQfQAO	Solar	2025-09-19T19:00:00.000Z
20	70.0	005gK000005CSQfQAO	Solar	2025-09-25T19:00:00.000Z
21	80.0	005gK000005CSQfQAO	Solar	2025-09-25T19:00:00.000Z
22	90.0	005gK000005CSQfQAO	Solar	2025-09-25T19:00:00.000Z
23	80.0	005gK000005CSQfQAO	Solar	2025-09-26T19:00:00.000Z
24	80.0	005gK000005CSQfQAO	Solar	2025-09-18T19:00:00.000Z
25	80.0	005gK000005CSQfQAO	Wind	2025-09-26T19:00:00.000Z
26	75.0	005gK000005CSQfQAO		2025-09-26T19:00:00.000Z

3. Duplicate Rules

Purpose:
Prevent duplicate records in key objects like Subscription__c or CarbonFootprint__c.

Steps:

1. Go to **Setup → Duplicate Management → Duplicate Rules**.

2. Click **New Rule**.

3. Select object (e.g., Subscription__c).

4. Define **matching rules** (e.g., match on Email, User ID).

5. Set actions:

   o **Alert** user when duplicate is found.

   o **Block** creation if necessary.

6. Save and **Activate** the rule.

Outcome:
System prevents duplicate subscriptions or footprint entries.

4. Data Export & Backup

Purpose:
Regularly backup org data to prevent loss.

Steps:

1. Go to **Setup → Data → Data Export**.

2. Click **Export Now** or schedule a **weekly/monthly export**.

3. Select objects to export (e.g., CarbonFootprint__c, Subscription__c).

4. Choose file format (CSV recommended).

5. Click **Start Export**.

6. Download the ZIP file containing CSVs for backup.

Outcome:
All Salesforce data is safely backed up.

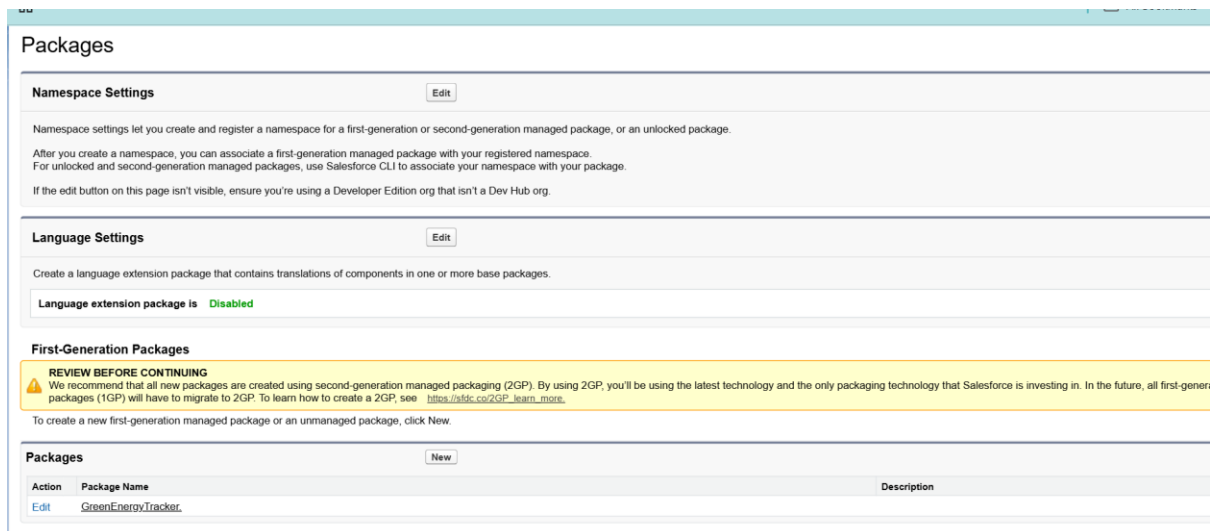**5. Unmanaged vs Managed Packages**

Purpose:
Understand how to deploy and share your app.

- **Unmanaged Package:**

    o Contains metadata only, can be modified after installation.

    o Ideal for internal org deployment or sharing code for learning.

- **Managed Package:**

    o Locked components, upgradeable, used for AppExchange distribution.

Steps to create (Unmanaged):

1. Go to **Setup → Packages → New**.

2. Name: GreenEnergyTracker.

3. Add components: Objects, Flows, Apex, Named Credentials.

4. Save → Upload → Get installation link for another org.
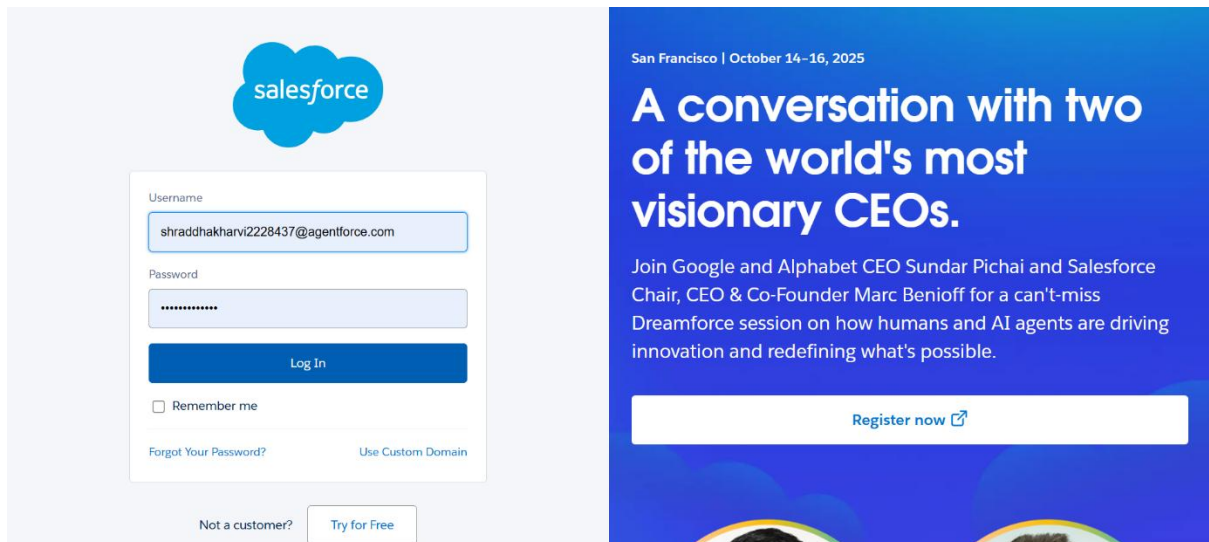

VS Code & Salesforce DX (SFDX)

Purpose:
Modern development, source control, and CI/CD for Salesforce.

Steps:

1. **Install VS Code →** Install **Salesforce Extension Pack**.

2. **Authorize org:**

        sfdx auth:web:login -a GreenEnergyTrackerDev

3.Create SFDX Project:

```
sfdx force:project:create -n GreenEnergyTracker
```

4.Retrieve metadata from org:

```
sfdx force:source:retrieve -m ApexClass,ApexTrigger,CustomObject
```