

Phase 8: Data Management & Deployment

- Data Import Wizard
- Data Loader
- Duplicate Rules
- Data Export & Backup
- Change Sets
- **Unmanaged vs Managed Packages**
- ANT Migration Tool
- VS Code & SFDX

Data Import Wizard

- A **point-and-click tool** in Salesforce used to import **standard and custom object records**.
- Supports importing up to **50,000 records** at a time.
- Handles duplicates according to Salesforce settings.
- **Ideal for:** Users who prefer **simple and guided imports** without complex configurations.

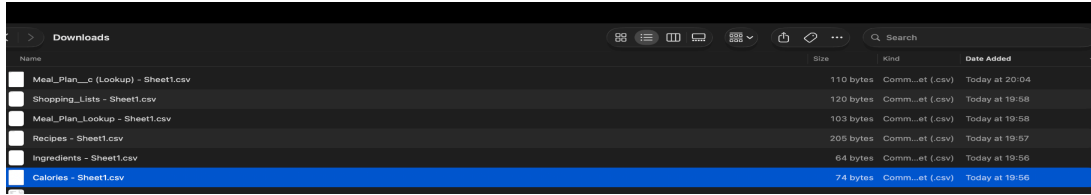
The screenshot shows the Salesforce Data Import Wizard interface in a web browser. The URL is `orgfarm-538aafab35-dev-ed.develop.lightning.force.com/lightning/setup/DataManagementDataImporter/home`. The interface is divided into three main sections: "Choose data", "Edit mapping", and "Start import".

Choose data: This section asks "What kind of data are you importing?". It has two tabs: "Standard objects" and "Custom objects". Under "Standard objects", a list of objects is shown: Calories (checked with a green checkmark), Ingredients, Meal Plan Lookup, Meal Plans, Quantities, Recipe Lookup, Recipes, and Shopping Lists. Each object has a right-pointing arrow next to it.

Edit mapping: This section asks "What do you want to do?". It has three options: "Add new records" (checked with a green checkmark), "Update existing records", and "Add new and update existing records". The "Add new records" option is expanded, showing a "Match by:" dropdown set to "Name", a "Which User field in your file designates record owners?" dropdown set to "External ID", and a checkbox for "Trigger workflow rules and processes?" which is checked.

Start import: This section asks "Where is your data located?". It has a "Drag CSV file here to upload" area and a "CSV" button.

At the bottom of the interface, there are three buttons: "Cancel", "Previous", and "Next".

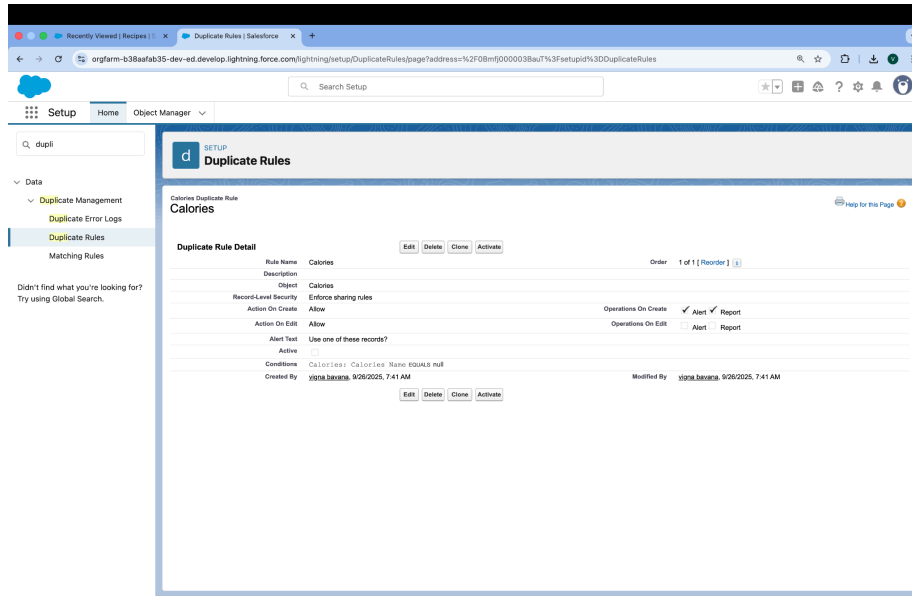


Data Loader

- A **client application** used to **insert, update, delete, and export records** in bulk.
- Can handle **millions of records**.
- Requires **installation** on a local machine.
- **Supports:** CSV files, command-line operations, and automation for scheduled tasks.
- **Ideal for:** Large-scale data operations and admin-level tasks.

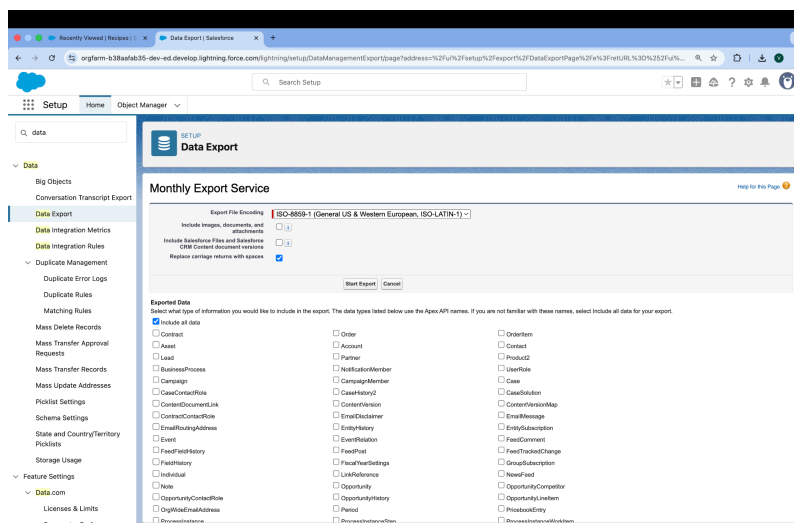
Duplicate Rules

- Define **how Salesforce identifies and manages duplicate records**.
- Can **alert users** or **block duplicates** during data entry.
- Works along with **Matching Rules**, which define **criteria for matching records**.
- Ensures **data integrity** and clean database.



Data Export & Backup

- Salesforce provides **weekly or monthly data export** to back up your org data.
- Can export **all objects or selected objects**.
- Supports **manual export** or **scheduled exports**.
- Ensures **data safety** before deployment or major updates.

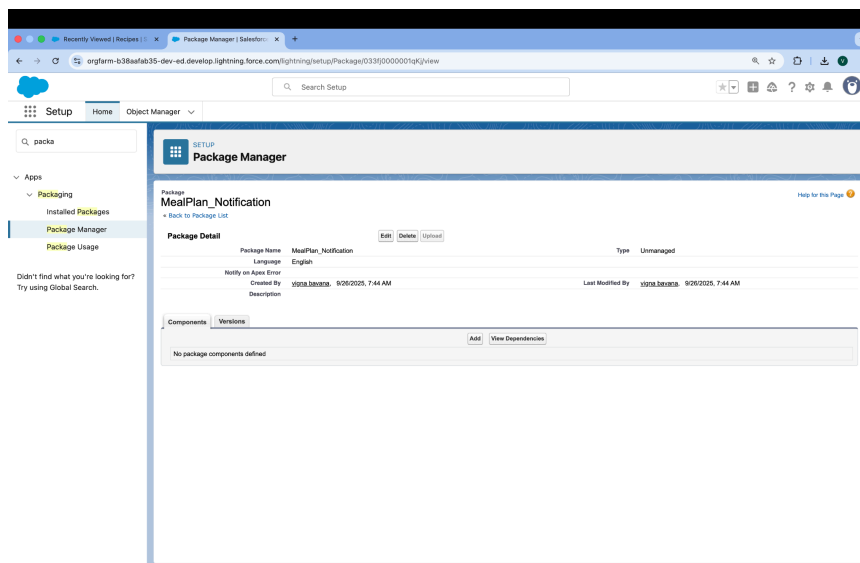


Change Sets

- A **declarative deployment tool** for moving **customizations** (objects, fields, workflows, etc.) between Salesforce orgs.
- Types:
 - **Outbound Change Set:** Sent from source org.
 - **Inbound Change Set:** Received in target org.
- **Limitations:** Cannot deploy everything (like certain Apex classes or settings).

Unmanaged vs Managed Packages

Feature	Unmanaged Package	Managed Package
Purpose	Sharing code/templates	Distributing commercial apps
Editable	Fully editable by recipient	Locked/limited edits
Namespace	No namespace	Has namespace
Upgrade	Cannot upgrade	Supports upgrades
Use Case	Training, sample apps	AppExchange apps

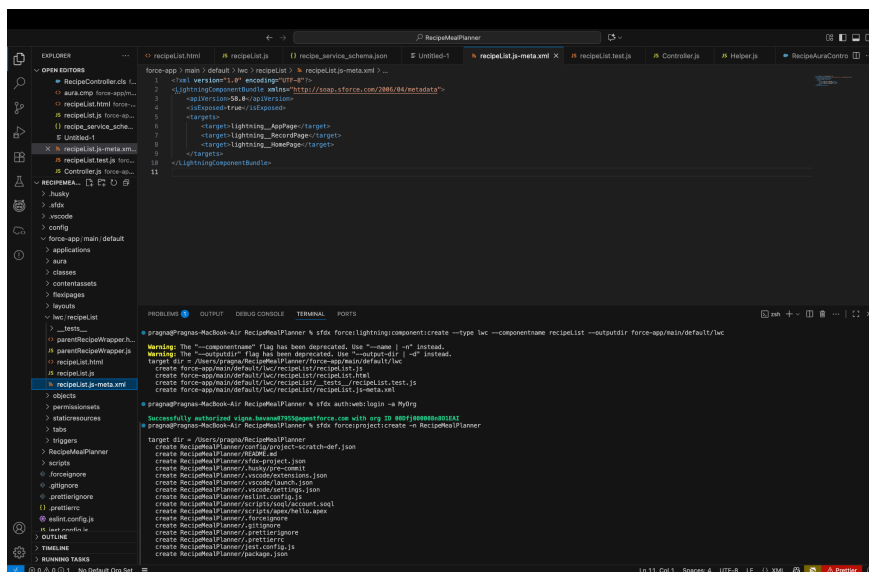


ANT Migration Tool

- A **command-line utility** for deploying metadata between Salesforce orgs.
- Built on **Apache ANT** and Salesforce **Metadata API**.
- Suitable for **automated, repeated, or bulk deployments**.
- Supports **version control integration**.

VS Code & SFDX

- **VS Code**: Salesforce-recommended IDE for development and deployment.
- **Salesforce DX (SFDX)**: Modern CLI tool for **source-driven development**.
- Key features:
 - **Scratch orgs** for development/testing.
 - **Push/pull metadata** between local and org.
 - **Run Apex tests** and manage orgs via CLI.
- **Ideal for**: Developers who want **modern, source-driven workflows**.



RecipeMealPlanner

force-app > main > default > lwc > recipeList > parentRecipeWrapper.js > ...

```
1 import { LightningElement, track } from 'lwc';
2
3 export default class ParentRecipeWrapper extends LightningElement {
4   @track recipeCount;
5
6   handleRecipesLoaded(event) {
7     this.recipeCount = event.detail.count;
8   }
9 }
10
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

pragna@Pragnas-MacBook-Air RecipeMealPlanner % sfdx auth:web:login -a MyOrg

pragna@Pragnas-MacBook-Air RecipeMealPlanner % sfdx force:project:create -n RecipeMealPlanner

target dir = /Users/pragna/RecipeMealPlanner
create RecipeMealPlanner/config/project-scratch-def.json
create RecipeMealPlanner/README.md
create RecipeMealPlanner/sfdx-project.json
create RecipeMealPlanner/.husky/pre-commit
create RecipeMealPlanner/.vscode/extensions.json
create RecipeMealPlanner/.vscode/launch.json
create RecipeMealPlanner/.vscode/settings.json
create RecipeMealPlanner/eslint.config.js
create RecipeMealPlanner/scripts/sql/account.sql
create RecipeMealPlanner/scripts/apex/hello.apex
create RecipeMealPlanner/.forceignore
create RecipeMealPlanner/.gitignore
create RecipeMealPlanner/.prettierrc
create RecipeMealPlanner/jest.config.js
create RecipeMealPlanner/package.json

pragna@Pragnas-MacBook-Air RecipeMealPlanner % sfdx force:lightning:component:create --type lwc --componentname recipeList --outputdir force-app/main/default/lwc

Warning: The "--componentname" flag has been deprecated. Use "--name | -n" instead.
Warning: The "--outputdir" flag has been deprecated. Use "--output-dir | -d" instead.
target dir = /Users/pragna/RecipeMealPlanner/force-app/main/default/lwc
identical force-app/main/default/lwc/recipeList/recipeList.js
identical force-app/main/default/lwc/recipeList/recipeList.html
identical force-app/main/default/lwc/recipeList/_tests_/recipeList.test.js
identical force-app/main/default/lwc/recipeList/recipeList.js-meta.xml

pragna@Pragnas-MacBook-Air RecipeMealPlanner %

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