

# Smart E-Commerce CRM – Customer Engagement & Order Management System

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## Phase 8: Data Management & Deployment

### Overview

This phase explains how to manage Salesforce data using Data Loader for bulk operations and how to deploy metadata using Visual Studio Code (VS Code) with manifest-based deployment.

### Part 1: Data Loader

#### Step 1: Install Data Loader

- Download Data Loader from Salesforce Setup.
- Install on your machine.

#### Step 2: Login to Data Loader

- Open Data Loader and choose Production or Sandbox.
- Enter Username, Password + Security Token.

#### Step 3: Perform Data Operations

- Insert: Import new Leads, Accounts, Orders, and Cases from CSV.
- Update: Modify existing customer data and order records.
- Upsert: Ensure product catalog and inventory sync without duplicates.

#### Step 4: Review Results

- Data Loader provides Success.csv and Error.csv files.
- Correct errors and re-upload if necessary.

```

Microsoft Windows [Version 10.0.26100.6584]
(c) Microsoft Corporation. All rights reserved.

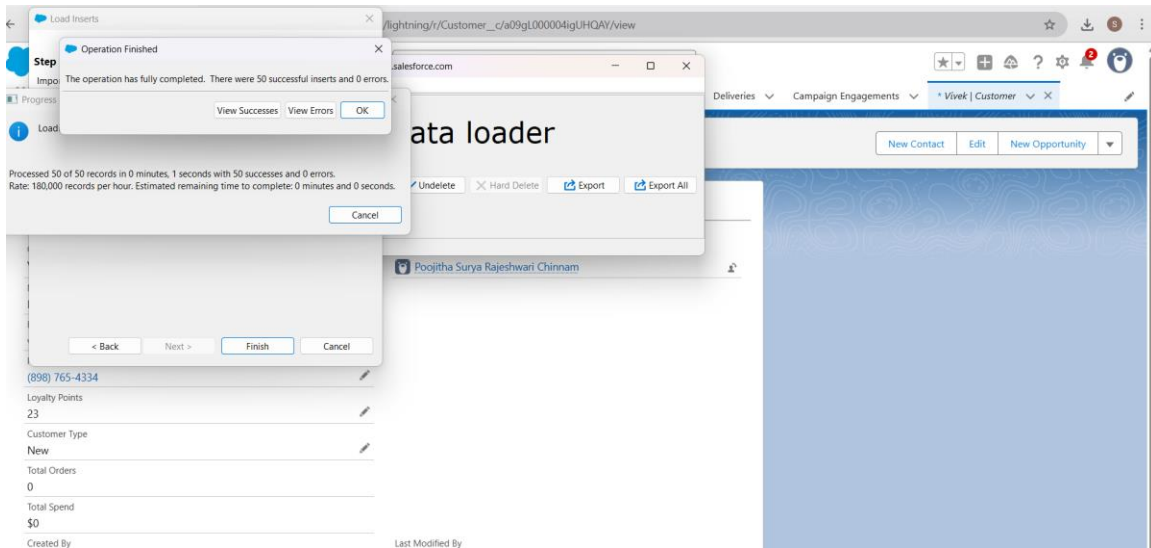
D:\Downloads\dataloader_v64.1.0>java -jar DataLoader-64.1.0.jar

*****
**                                     **
**           Salesforce Data Loader           **
**           =====**
**
** Data Loader v64 is a Salesforce supported Open Source project to
** help you import data to and export data from your Salesforce org.
** It requires Java JRE 17 or later to run.
**
** Github Project Url:
**   https://github.com/forcedotcom/dataloader
** Salesforce Documentation:
**   https://help.salesforce.com/articleView?id=data_loader.htm
**
*****

```

## Authorization Successful!

You can now close this browser window and return to Data Loader.



Order Name	Order Date	Status of Order	Payment Status	Total Amount	Customer_c
ORD-5001	15-03-2025	Placed	Paid	520	a09gl000004igUHQAY
ORD-5002	10-03-2025	Shipped	Pending	650	a09gl000004igXVQAY
ORD-5003	28-02-2025	Delivered	Paid	780	a09gl000004igUHQAY
ORD-5004	15-02-2025	Cancelled	Refunded	590	a09gl000004igUHQAY
ORD-5005	30-01-2025	Placed	Paid	810	a09gl000004hwXQXAY
ORD-5006	25-01-2025	Shipped	Pending	920	a09gl000004hwXQXAY
ORD-5007	20-01-2025	Delivered	Paid	550	a09gl000004igUHQAY
ORD-5008	18-01-2025	Cancelled	Refunded	630	a09gl000004igUHQAY
ORD-5009	15-01-2025	Placed	Paid	740	a09gl000004hzymQAA
ORD-5010	12-01-2025	Shipped	Pending	810	a09gl000004hwXQXAY
ORD-5011	10-01-2025	Delivered	Paid	970	a09gl000004hwXQXAY
ORD-5012	08-01-2025	Cancelled	Refunded	660	a09gl000004igUHQAY
ORD-5013	05-01-2025	Placed	Paid	880	a09gl000004igUHQAY
ORD-5014	02-01-2025	Shipped	Pending	950	a09gl000004hzymQAA
ORD-5015	30-12-2024	Delivered	Paid	1020	a09gl000004hwXQXAY
ORD-5016	28-12-2024	Cancelled	Refunded	780	a09gl000004igUHQAY
ORD-5017	25-12-2024	Placed	Paid	860	a09gl000004igXVQAY
ORD-5018	22-12-2024	Shipped	Pending	910	a09gl000004igXVQAY
ORD-5019	20-12-2024	Delivered	Paid	970	a09gl000004igUHQAY
ORD-5020	18-12-2024	Cancelled	Refunded	830	a09gl000004hzymQAA
ORD-5021	15-12-2024	Placed	Paid	990	a09gl000004igUHQAY
ORD-5022	12-12-2024	Shipped	Pending	870	a09gl000004hzymQAA
ORD-5023	10-12-2024	Delivered	Paid	940	a09gl000004hzymQAA
ORD-5024	08-12-2024	Cancelled	Refunded	880	a09gl000004igUHQAY
ORD-5025	05-12-2024	Placed	Paid	1020	a09gl000004igXVQAY
ORD-5026	02-12-2024	Shipped	Pending	910	a09gl000004igXVQAY

## Part 2: Deployment Using VS Code

### Step 1: Prepare VS Code Project

- Open Salesforce DX project in VS Code.
- Ensure all LWCs, Apex classes, and metadata are stored in force-app/main/default.

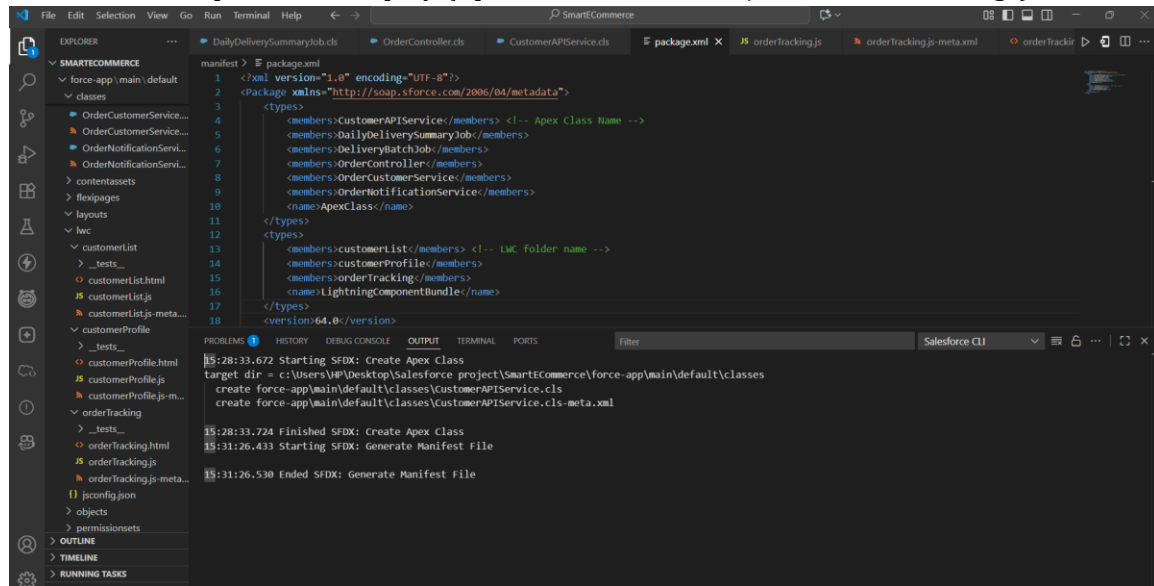
```

force-app > main > default > classes > CustomerAPIService.cls > CustomerAPIService
1  public with sharing class CustomerAPIService {
2      @AuraEnabled(cacheable=true)
3      public static List<Map<String, Object>> fetchCustomers() {
4          Http http = new Http();
5          HttpRequest request = new HttpRequest();
6          request.setEndpoint('https://reqres.in/api/users/1'); // API endpoint
7          request.setMethod('GET');
8          HttpResponse response = http.send(request);
9
10         if(response.getStatusCode() == 200){
11             Map<String, Object> result = (Map<String, Object>) JSON.deserializeUntyped(response.getBody());
12             return (List<Map<String, Object>>) result.get('data');
13         }
14         return new List<Map<String, Object>>();
15     }
16 }

```

### Step 2: Use Manifest (package.xml) for Deployment

- Define the components to deploy (Apex Classes, LWCs, Objects, Custom Settings).



Step 3: Deploy to Salesforce Org

- Right-click manifest/package.xml → SFDX: Deploy Source to Org.
- Check Output Panel for success or error logs.

Step 4: Verify Deployment

- Login to Salesforce Org.
- Validate LWCs, Apex classes, workflows, and custom objects.

