

## Phase 8: Data Management & Deployment

**Goal:** Manage data and move changes for the Membership & Subscription Manager project. This phase ensures smooth handling of membership records, subscriptions, and invoices, and covers methods to migrate project changes between environments.

### 1. Data Import Wizard

- Used for small demo data imports (up to 50,000 records).
- Example: Import 20 demo Members with Name, Email, Phone, Membership Type.

### 2. Data Loader (Bulk Data)

- Handles large imports, updates, and deletes.
- Example: Import 50 Subscriptions linked to Members.
- Supports Insert, Update, Upsert, Delete.

### 3. Duplicate Rules

- Prevent duplicate Members.
- Example: Block record if Email\_\_c already exists.

### 4. Data Export & Backup

- Schedule weekly backup of Members, Subscriptions, Invoices.
- Path: Setup → Data Export → Schedule Weekly Export.
- Ensures recovery during data loss.

### 5. Change Sets

- Move configurations (objects, fields, flows, triggers) from Sandbox → Production.
- Outbound Change Set → Add Components → Upload → Deploy in Production.

### 6. Managed vs Unmanaged Packages

- Unmanaged: Share editable project (best for learning/demo).
- Managed: Locked components, used for AppExchange.

### 7. ANT Migration Tool

- Command-line deployment tool.

- Deploy metadata via XML package files.
- Ideal for automated CI/CD pipelines.

## **8. VS Code & Salesforce DX (SFDX)**

- Developer-friendly for version control & deployments.
- Common commands:
  - `sfdx force:source:pull` → Pull changes
  - `sfdx force:source:push` → Push changes
  - `sfdx force:apex:test:run` → Run test classes

### **Conclusion:**

- Use Data Import Wizard for demo Members.
- Use Data Loader for bulk Subscriptions.
- Implement Duplicate Rules for clean data.
- Schedule Weekly Exports for backup.
- Use Change Sets / Packages / SFDX for deployments.

This ensures data is secure, consistent, and easily migrated between environments.