Phase 5: Apex Programming (Developer)

Objective:

Handle complex logic beyond declarative tools and achieve fine-grained control over Salesforce data and processes.

Key Topics:

- **Apex Classes & Triggers:**

  - *Example Trigger:* When an Opportunity is won, automatically create a Project record.

- **SOQL & SOSL:**

  - Fetch data efficiently with filters.

- **DML Operations:**

  - Insert, Update, Delete multiple records.

- **Bulk Processing & Best Practices:**

  - Avoid SOQL/DML inside loops.

  - Use collections for performance.

- **Error Handling:**

  - Try-Catch blocks, Custom Exceptions.

- **Test Classes:**

  - Required for deployment. Must cover 75%+ code.

Deliverables:

✓ Apex Trigger: Auto-create Invoice when Opportunity closes.
✓ Apex Class: Business logic for calculating loyalty points.
✓ Batch Apex: Large data update job (e.g., mass price update).
✓ Test Class with assert statements.