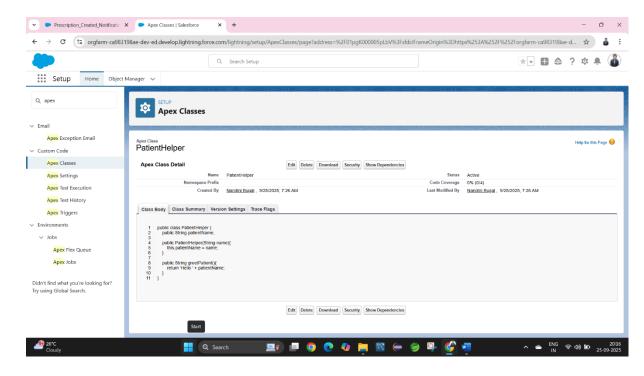
# **MediAid Healthcare Project**

## **Phase 5: Apex Programming (Developer)**

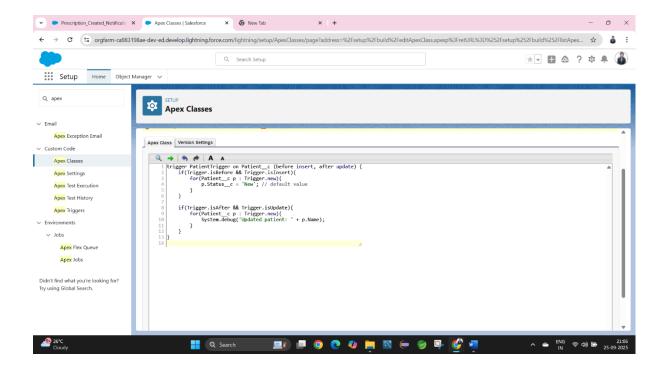
## 1. Classes & Objects

 Apex classes are templates for objects; contain variables, constructors, and methods.



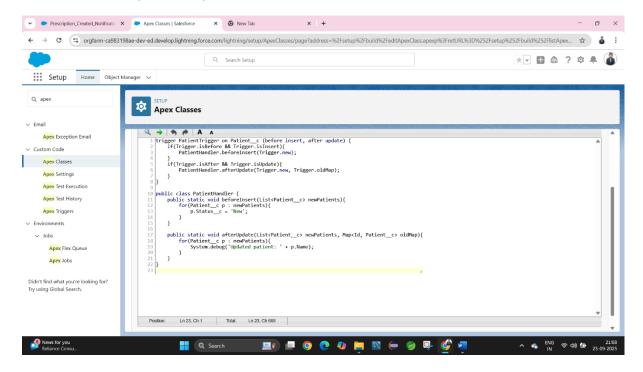
# 2. Apex Triggers (before/after insert/update/delete)

• Triggers execute **before or after** DML operations.

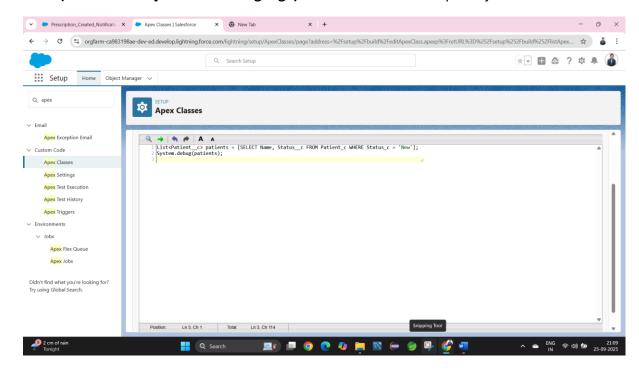


# 3. Trigger Design Pattern

- Separates logic from trigger into a handler class.
- Makes code clean, reusable, and maintainable.

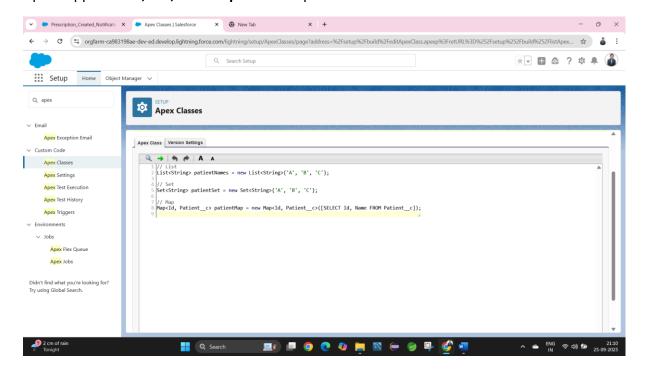


- **SOQL (Salesforce Object Query Language)** → Query records.
- SOSL (Salesforce Object Search Language) → Search across multiple objects.



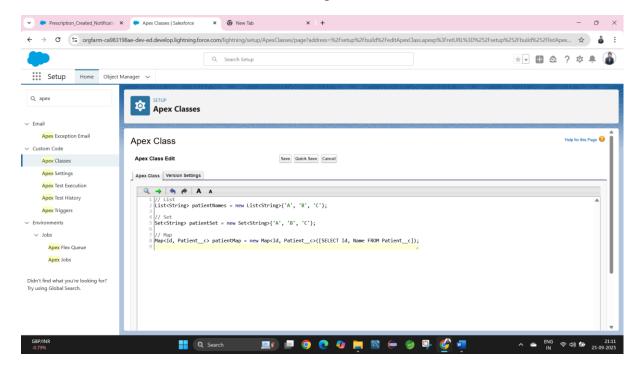
## 5. Collections (List, Set, Map)

• Apex supports **List**, **Set**, **and Map** for bulk operations.



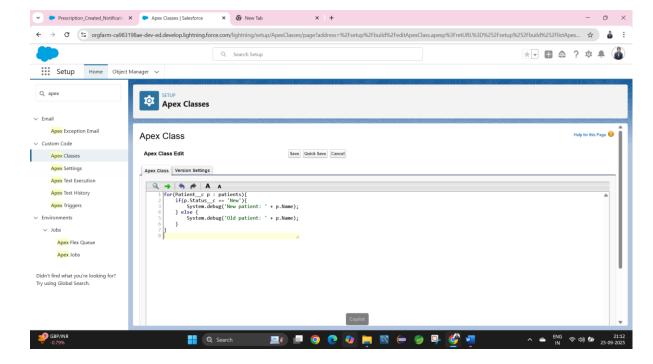
#### 6. Control Statements

• Use if-else, for, while, switch for conditional logic.



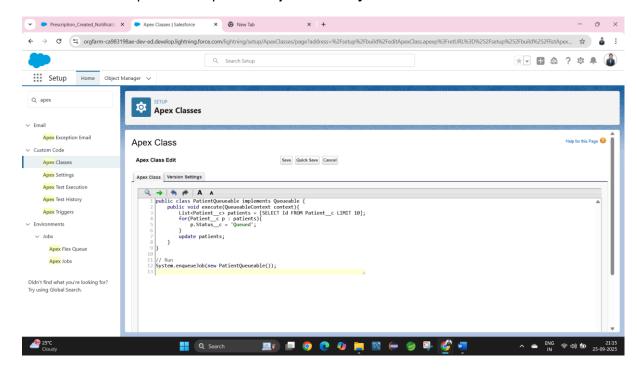
## 7. Batch Apex

- Processes large records asynchronously.
- Implement Database.Batchable<SObject> interface.



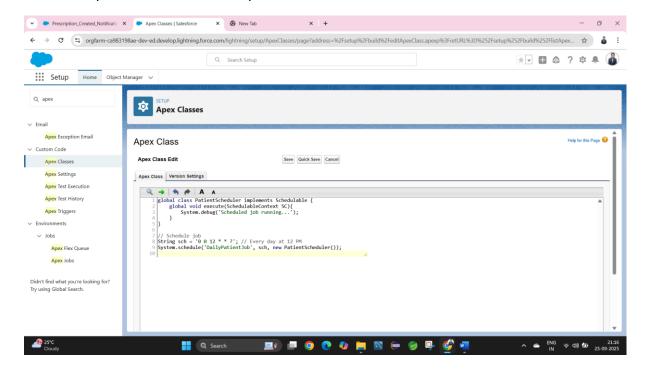
## 8. Queueable Apex

• Similar to Batch Apex but simpler for asynchronous jobs.



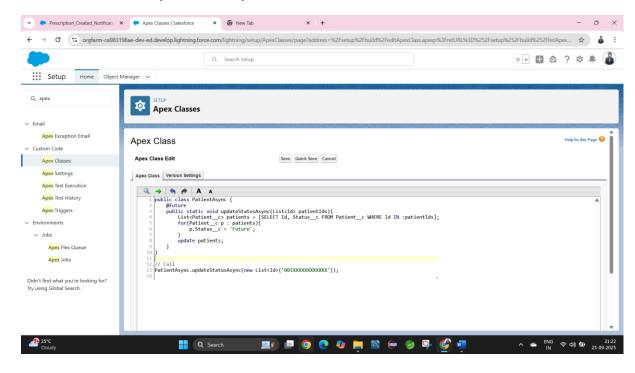
## 9. Scheduled Apex

• Schedule Apex classes to run at a specific time or interval.



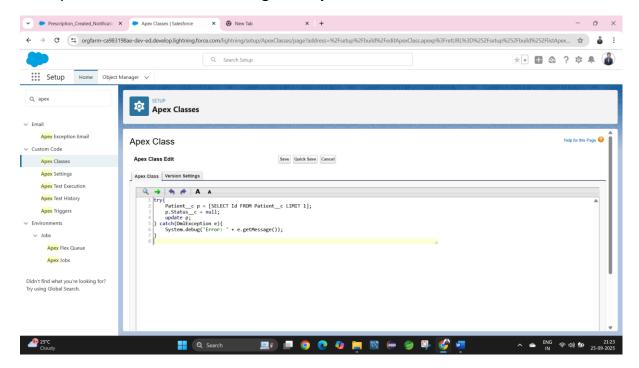
#### 10. Future Methods

Executes methods asynchronously.



## 11. Exception Handling

Use try-catch blocks to handle errors gracefully.



### 12. Test Classes

• Mandatory for **deployment**; must cover ≥75% of Apex code.

