Phase 5: Apex Programming (Developer)

Objective: To implement complex business logic that cannot be achieved with declarative tools.

Key Activities & Outcomes:

1. **Apex Class: A reusable helper class, LoanCalculator.cls, was created to contain the mathematical logic for calculating the EMI.**

2. **Apex Trigger: An Apex trigger, LoanApplicationTrigger.trigger, was created to fire before a Loan Application is inserted or updated. It calls the helper class to calculate and populate the Estimated EMI field automatically.**

3. **Apex Test Class: A test class, LoanCalculatorTest.cls, was written to validate the trigger's functionality and ensure it meets Salesforce's code coverage requirements.**

Supporting Evidence: Apex Code Snippets

// From LoanCalculator.cls

public static Decimal calculateEMI(Decimal principal, Decimal annualRate, Integer termInMonths) { ... }

// From LoanApplicationTrigger.trigger

trigger LoanApplicationTrigger on Loan_Application__c (before insert, before update) {

  for (Loan_Application__c loanApp : Trigger.new) {

    loanApp.Estimated_EMI__c = LoanCalculator.calculateEMI(...);

  }

}