

Phase 5: Apex Programming

TaskFlow Pro Project Management System

Apex Classes Developed

1. TaskHandler Class

Automatically updates task completion percentage based on status

2. ResourceAllocationHandler Class

Validates resource capacity and prevents overallocation

Apex Triggers Created

1. TaskTrigger

- Event: before insert, before update
- Calls TaskHandler methods

2. ResourceAllocationTrigger

- Event: before insert, before update
- Validates total allocation doesn't exceed 100%

VS Code Setup

- Installed Salesforce CLI
- Created SFDX project
- Connected to org
- Deployed Apex code

Test Cases

Test	Input	Expected
1	Task status = Completed	Completion = 100%
2	Allocation 80% + 30%	Error shown
3	Allocation 50% + 40%	Success

Learning Outcomes

- ✓ Apex Class-Trigger pattern
- ✓ SOQL queries
- ✓ Collection handling
- ✓ Error handling
- ✓ VS Code development