

Phase 9: Reports & Dashboards

Debug Log Analysis and Bug Fixing in Salesforce Apex

1. Objective of Phase 9

The purpose of this phase is to create **reports and dashboards** that provide **insights into Apex execution, test results, and debugging activities**.

Even though the primary focus of this project is **Apex debugging**, using reports and dashboards helps:

- Track **test coverage and results**.
- Visualize **debug log trends** or recurring issues.
- Demonstrate project functionality in a **presentation-ready format**.
- Evaluate the impact of fixes applied during debugging.

2. Reports for Debugging Insights

a. Apex Test Results Report

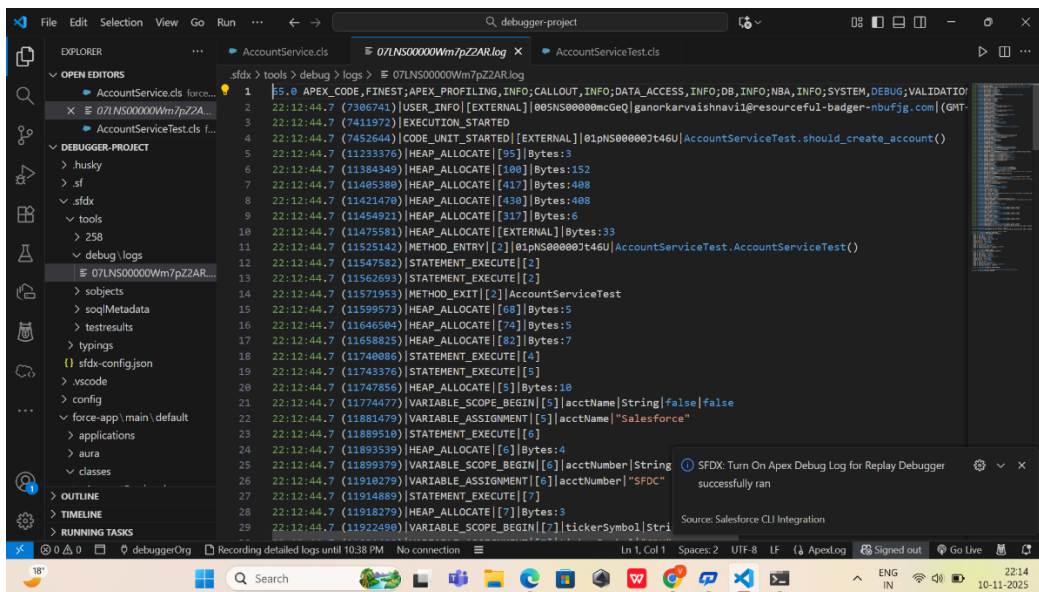
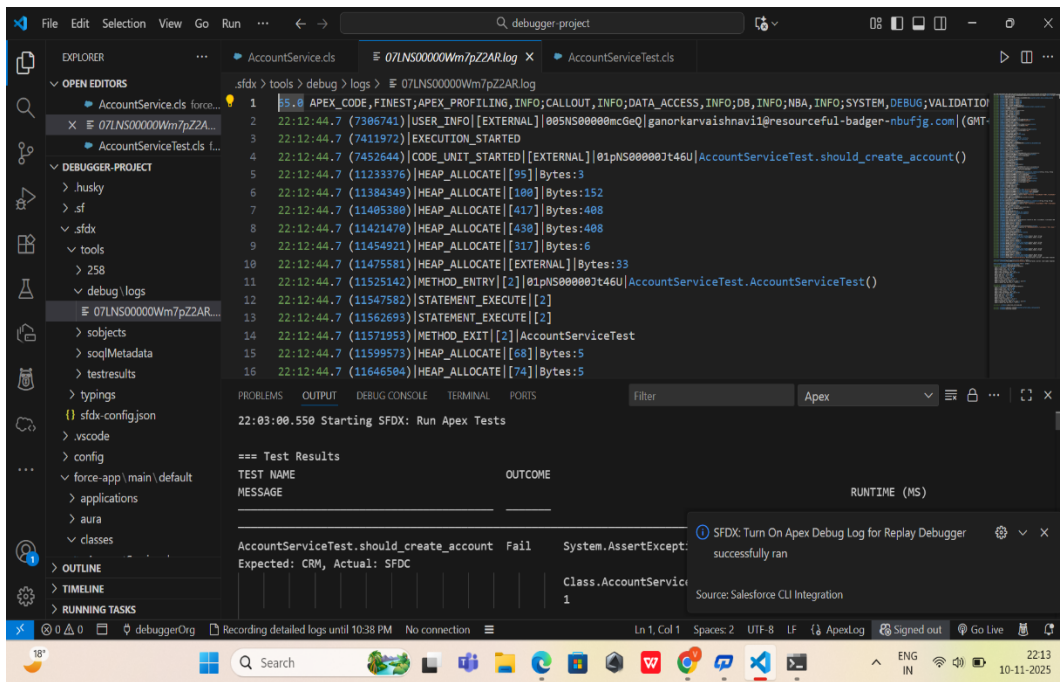
- Lists all executed test classes and their results.
- Fields included:
 - Test Class Name
 - Test Method Name
 - Status (Pass/Fail)
 - Execution Time
- Helps quickly identify failing tests and verify bug fixes.

b. Deployment & Metadata Status Report

- Tracks which Apex classes and components are deployed.
- Ensures that all deployed metadata is aligned with the Salesforce DX project.

c. Optional Debug Log Summary Report

- If debug logs are stored in a custom object (optional), reports can show:
 - Logs generated per user or session
 - Execution duration
 - Error occurrences



3. Dashboards for Visualization

Dashboards can provide **graphical representation** of the above reports:

- **Test Execution Dashboard**
 - Pie chart showing passed vs failed tests
 - Line chart showing test execution over time

- **Bug Tracking Dashboard**
 - Bar chart showing frequency of specific errors (e.g., TickerSymbol bug)
 - Helps visualize how fixes improve code quality
- **Deployment Overview Dashboard**
 - Visualizes which Apex classes and UI components are deployed successfully
 - Quick reference for project completeness

4. Benefits of Reports & Dashboards

- Provides a **visual summary** of testing and debugging efforts.
- Helps **track progress** after applying fixes.
- Useful for **project presentation** and demonstrating workflow.
- Supports **decision-making** for future improvements in Apex code.

5. Deliverables of Phase 9

By the end of this phase, you will have:

- ✓ Reports showing Apex test results and execution details
- ✓ Dashboards visualizing test pass/fail statistics
- ✓ Optional reports for debug log insights
- ✓ Clear, presentation-ready summary of project debugging activities

6. Outcome

- Provides a **complete end-to-end view** of Apex code testing and debugging.
- Demonstrates **impact of debugging** on Apex test results.
- Enhances the **overall professional presentation** of the Salesforce DX project.