# **Day 10 – Final Integration and Project Completion**

On Day 10, the focus was on completing the final integration of all modules, verifying the workflow end-to-end, and preparing the project for deployment and documentation. The aim was to ensure that the Auto Evaluation Platform functioned smoothly — from file upload and evaluation to result logging, leaderboard updates, and error handling.

## **Objectives of Day 10**

1. Integrate all previously developed modules into a single unified application.  
2. Perform system testing to ensure end-to-end functionality.  
3. Validate data synchronization between different DynamoDB tables.  
4. Ensure that all API endpoints are functional and stable.  
5. Document the entire project for final submission and presentation.

## **Activities Completed**

- Verified the complete workflow — students upload Java assignments → system compiles → evaluates test cases → logs results and errors → updates leaderboard.  
- Checked DynamoDB tables for correct data insertion in:  
 • EvaluationResult   
 • EvaluationLog   
 • EvaluationErrorLog   
 • Leaderboard  
- Resolved minor bugs related to dependency conflicts and package scanning.  
- Conducted a final round of Maven build (`mvn clean compile test`) to confirm successful builds.  
- Prepared day-by-day documentation including UML diagrams and project explanations.

## **System Testing**

Comprehensive testing was done to ensure the stability of the Auto Evaluation Platform. The following were tested:  
- File uploads with both valid and invalid Java files.  
- Correct handling of compile-time and runtime errors.  
- Accuracy of leaderboard rankings based on scores.  
- Logging of evaluation results and system errors in DynamoDB.  
- Integration of BDD testing framework (Cucumber + JUnit) for automated validation.

## **UML Diagrams (To be Included)**

1. Sequence Diagram – showing the flow from assignment upload to evaluation result.  
2. Class Diagram – showing relationships between major classes such as Submission, EvaluationEngineImpl, and DynamoDB repositories.  
3. Activity Diagram – illustrating how evaluation and logging occur step by step.

## **Outcome of Day 10**

The Auto Evaluation Platform was fully functional, stable, and ready for demonstration. Each component — from file upload to leaderboard management — was successfully verified. The entire system was documented, and all modules were integrated without errors.

## **Conclusion**

Day 10 successfully marked the completion of the E-Learning Auto Evaluation Project. The platform is now capable of automatically evaluating student assignments, recording logs and results, handling errors gracefully, and maintaining a dynamic leaderboard. The integration of AWS DynamoDB and Spring Boot ensured scalability, while Cucumber-based testing verified its reliability.  
This concludes the project with a complete, production-ready Auto Evaluation System.