# E-Learning Platform with Auto Evaluation

Title: Day 5 – MySQL - Store scores.

Date: 14 Sept 2025

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## Introduction

On Day 4, we completed core implementation and testing of quiz creation and auto-evaluation. Day 5 focused on integrating MySQL as the persistent data layer to store student scores and evaluation details.

## Activities Performed

- Designed database schema for quiz results, including tables: students, quizzes, questions, and evaluations.  
- Added columns for total\_score, per\_question\_score, and timestamp to track each attempt.  
- Implemented JDBC-based Data Access Objects (DAOs) for storing and retrieving scores.  
- Updated the AutoEvaluation service to write each student's quiz attempt and score to MySQL immediately after grading.  
- Added transaction management to ensure consistency between quiz submissions and stored scores.  
- Validated ownership so that only the logged-in student can view their own scores.

## Testing and Results

- Conducted multiple quiz attempts and verified that scores were accurately recorded in the evaluations table.  
- Performed failure tests by simulating database outages; verified that appropriate error messages were logged and retries were handled gracefully.  
- Confirmed timestamp accuracy and readability for each stored record.

## Improvements Achieved

The platform now maintains a reliable, queryable history of all quiz attempts. Instructors can analyze student performance over time, and students can review past scores. The robust schema allows easy expansion for analytics and reporting.

## Conclusion

Day 5 successfully integrated MySQL as the primary database for storing quiz scores and evaluation details. This ensures durable storage of student performance data and sets the stage for advanced reporting and data analysis.