# Day 3 – Java API for E-Learning Platform with Auto Evaluation

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## Introduction:

On Day-3, I focused on building the Java API for the platform. The goal was to allow students and teachers to register, create courses, enroll students, and add quizzes, while storing all details in a MySQL database.

## Environment Setup:

- Installed and configured Java 23 and IntelliJ IDEA.  
- Project created with Maven build system.  
- Dependencies added in pom.xml: MySQL Connector/J, jBCrypt.  
- Database created: e\_learning\_db with tables students, courses, quizzes, results.  
- Verified connection with TestDB.java.

## Database Schema:

Students: id, name, email, password.  
Courses: id, title, description, teacher\_id.  
Quizzes: id, course\_id, question, options, correct\_answer.  
Results: id, student\_id, quiz\_id, score.

## Java Classes Implemented:

- DBConnection.java → Manages DB connection.  
- Student.java, Course.java, Quiz.java, Result.java → Model classes.  
- DAO classes for CRUD operations.  
- AuthService.java → Handles login & password hashing.  
- QuizService.java → Handles quiz creation & fetching.  
- MainApp.java → Console-based menu system.

## Testing Performed:

1. Registered a new student.  
2. Logged in with correct credentials.  
3. Created a course and assigned a quiz.  
4. Verified quiz and course details in the database.

## Conclusion:

On Day-3, I successfully developed the Java API components for the E-Learning Platform. The application now supports user registration, login, course creation, and quiz management. This marked the first working milestone of the system.