

EduTestPortal — Final Build Summary (Completed & Tested)

Tech Stack

Frontend: JSP, HTML5, CSS3, JSTL

Backend: Java Servlets (Jakarta EE), JDBC

Database: MySQL

Security: BCrypt password hashing

Server: Apache Tomcat 10

Modules Implemented

Student Module

- Login & Registration (bcrypt-secured)
- Dashboard with visible quizzes (filtered by batch)
- Attempt quizzes with real-time **timer + auto-submit**
- Session-based **answer persistence** (no data loss on refresh)
- View quiz results (with percentage, feedback message)
- Edit and delete profile

Teacher Module

- Login & Registration (bcrypt-secured)
- Dashboard for quiz management
- Add, edit, delete, and view questions
- Assign quizzes to batches
- View results per quiz with detailed student performance
- Toggle quiz visibility (show/hide)

Admin Module

- Login (bcrypt-secured)
- Dashboard with overall statistics (students, teachers, quizzes)
- Manage Students, Teachers, and Quizzes
- View results for any quiz
- Delete or toggle quiz visibility globally

Advanced Features

-  Quiz timer with session persistence
 -  Real-time answer saving via AJAX
 -  Secure password hashing using **BCrypt**
 -  Result analytics for teachers & admins
 -  Global message system (success/error feedback)
 -  Access control with session validation on every servlet
 -  Fully tested CRUD operations across all entities
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Unified Design & Theming

- **Global layout:** Shared header.jsp and layout.css
- **Background:** Education-themed image (bgimg1.png) with dark overlay
- **Glassmorphism containers:** White, semi-transparent cards with subtle blur
- **Unified Navbar:** Sticky, logo on the left, purple accent (#6c63ff)
- **Consistent color system:**
 - Primary: #6c63ff
 - Accent: #5a4fff
 - Background overlay: rgba(0,0,0,0.55)
- **Responsive design:** Works across desktop and tablet viewports