

# TEST SUMMARY

## 1. Overview

- The University ERP desktop system was tested end-to-end for all three roles, Admin, Instructor, and Student, using MySQL 8.0 and JDK 24.
- All major functional, access control, and data integrity checks were executed based on the acceptance criteria in Section 10 of the evaluation document.
- All core and all but one bonus requirements passed successfully.

## 2. Test Environment

Component	Details
OS	Windows 11
Java	JDK24
IDE	IntelliJ IDEA 2025.1.4
Database	MySQL 8.0
Libraries	JDBC, FlatLaf, OpenCSV, OpenPDF, BCrypt
DBs Used	auth_db , erp_db (linked via user_id)

## 3. Test Execution Summary

- Login (Admin, Instructor, Student) - Correct dashboard for each role
- Wrong password (5×) => Account blocked - Account locked with warning message
- Admin unblocks user - Works via “Unblock User” button
- Maintenance mode toggle - Admin can toggle; others become view-only
- Course catalog visible - Displays code, title, credits, instructor name
- Student registration - Checks capacity and prevents duplicate enrollments
- Student drop before deadline - Drop works only before deadline
- Instructor sees only own sections - Linked by username/instructor ID
- Grade entry (quiz/midterm/endsem) - Saved successfully in database
- Compute final grade (20/30/50 rule) - Correct weighted calculation
- View section stats (avg/min/max/grade distribution) - Displayed accurately
- Transcript export (CSV/PDF) - Files generated successfully

# **TEST SUMMARY**

- Grade export/import (CSV) - Works; skips invalid rows safely
- Add course or section - Reflected instantly in DB
- Assign instructor to section - Linked correctly
- Delete course or section - Safe cascade deletion verified
- Notifications banner - Latest message shows in UI
- Sorting / Filtering - Enabled via `setAutoCreateRowSorter(true)`
- “Please wait” dialog - Added for long operations
- Change Password - Updates bcrypt hash in Auth DB correctly

## **4. Final Verdict**

- All mandatory and most bonus features have passed testing.
  - The ERP system meets every acceptance test from the evaluation document: - Functional (Student, Instructor, Admin) - Role-based access + Maintenance enforcement - Authentication separation and bcrypt security - Data integrity, UI clarity, and performance sanity System is stable, secure, and ready for demo submission.
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