

AP Project Diagrams: University ERP

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1 Use Case Overview

The ERP system supports three primary roles: Student, Instructor, and Admin. The following tables summarize the main use cases for each actor and a short description of their behavior.

1.1 Student Use Cases

Use Case	Description
Login	Authenticate using username and password to access the student dashboard.
View Timetable	View registered course sections in a weekly timetable layout.
Browse Course Catalog	View the current semester course catalog, including instructor, timings, and seat availability.
Register for Section	Request registration in an available section (subject to capacity and deadlines).
Drop Section	Drop an enrolled section before the drop deadline.
View Grades	View component scores (Quiz, Midterm, Endterm) and final grades once published.
Download Transcript	Export final grades to a CSV file or view official transcript.
Logout	End the current session safely.

Table 1: Student Use Cases

1.2 Instructor Use Cases

Use Case	Description
Login	Authenticate as an instructor and access the dashboard.
View Assigned Sections	See list of sections assigned for the current term.
Enter / Edit Scores	Input Quiz, Midterm, and Endterm scores for enrolled students.
Compute Final Grades	Trigger computation of final letter grades based on the 20/30/50 weighting rule (or configurable weights).
View Class Statistics	View average, maximum, minimum and distribution of scores per component.
Change Password	Update instructor account password.
Logout	End the current session safely.

Table 2: Instructor Use Cases

1.3 Admin Use Cases

Use Case	Description
Login	Authenticate as an admin and access the admin dashboard.
Manage Users	Create, edit, or delete student, instructor, or admin accounts; assign roles.
Manage Courses	Create and edit course entries (course code, title, credits).
Manage Sections	Create and edit sections (instructor, timings, capacity, location).
Set Deadlines	Configure registration and drop deadlines, grading windows, etc.
Toggle Maintenance	Enable or disable system-wide read-only/maintenance mode.
Post Alert	Post system-wide notifications or scheduled alerts.
Logout	End the current session safely.

Table 3: Admin Use Cases

2 Use Case Diagram

This diagram provides a visual overview of the actors and their interactions with the system.

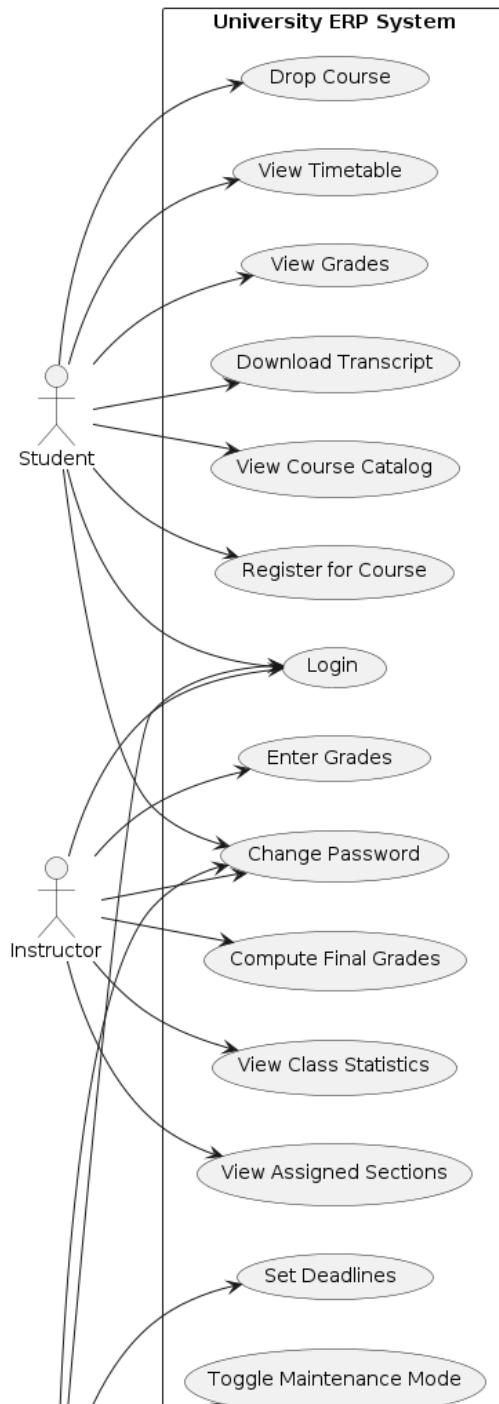


Figure 1: Use Case Diagram

3 Domain Model ("Things" Sketch)

This diagram illustrates the primary entities and relationships inside the ERP system, highlighting separation between authentication data and ERP data.

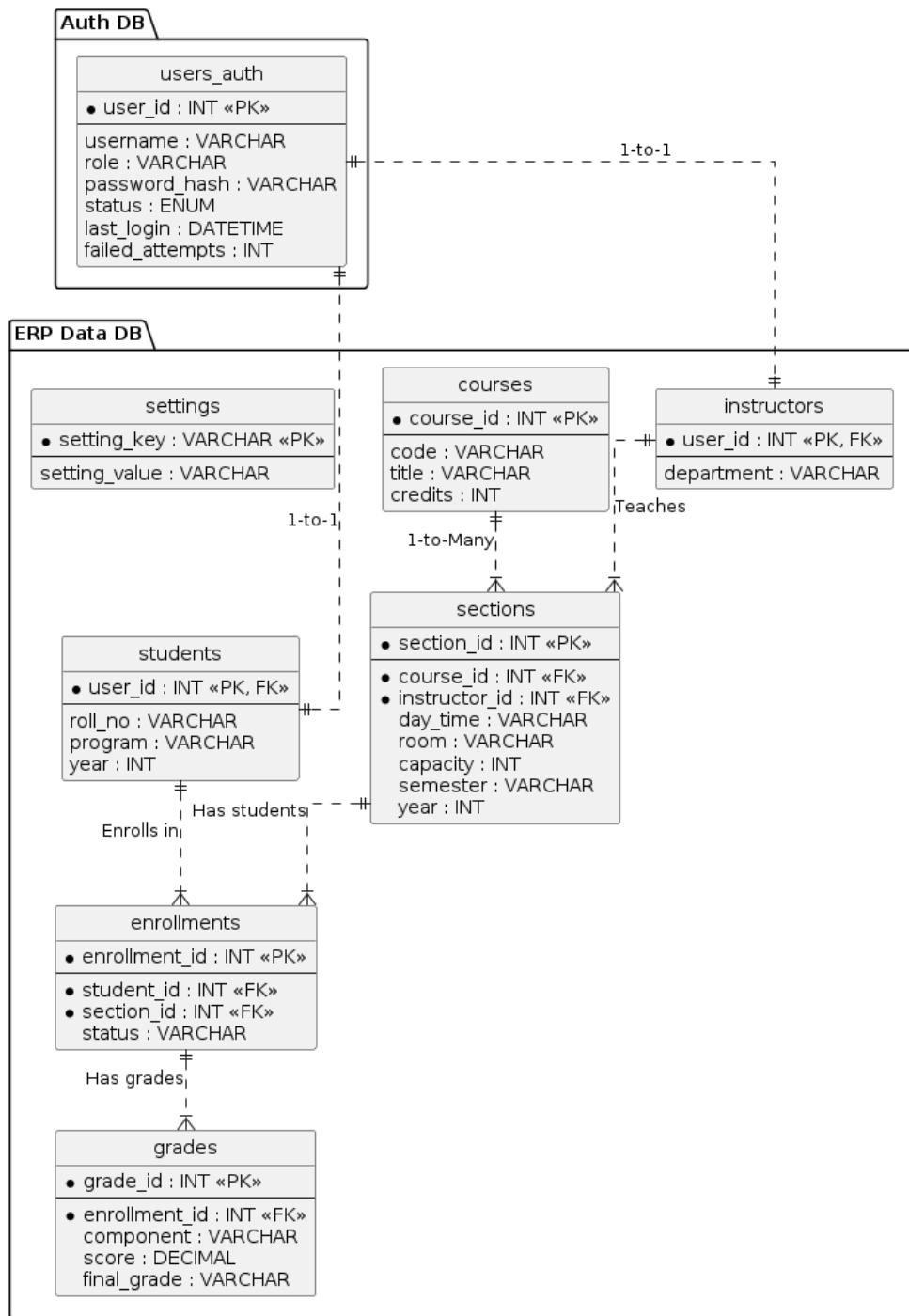


Figure 2: Entity Relationship Diagram (ERD)

4 Flow Diagrams

This section contains activity/flow diagrams describing important processes in the ERP.

4.1 Student Enrollment Flow

This flow charts the decision logic for a student attempting to register for a course section, including checks for maintenance mode, deadlines, and section capacity.

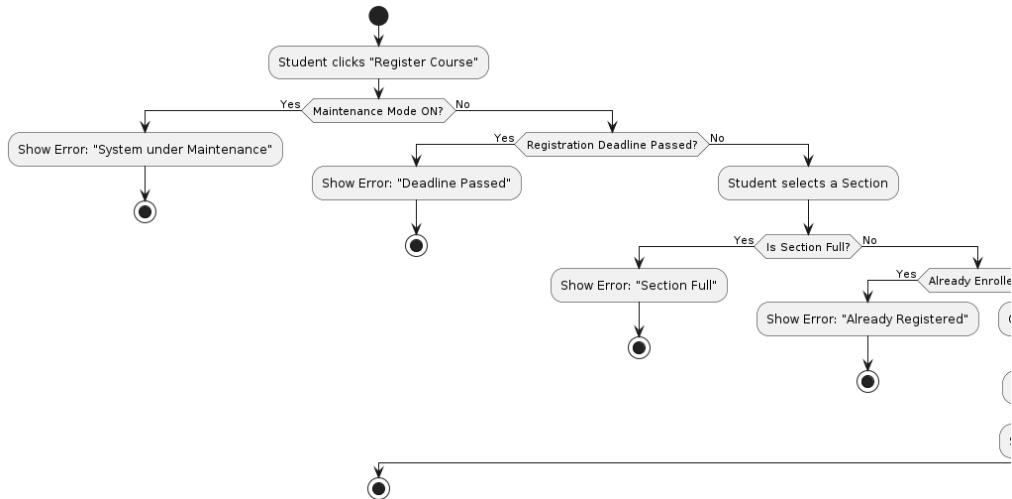


Figure 3: Activity Flow: Student Course Enrollment

4.2 Grade Entry and Final Grade Computation

This flow details the Instructor's process of entering raw scores, validating them, and triggering the final grade computation.

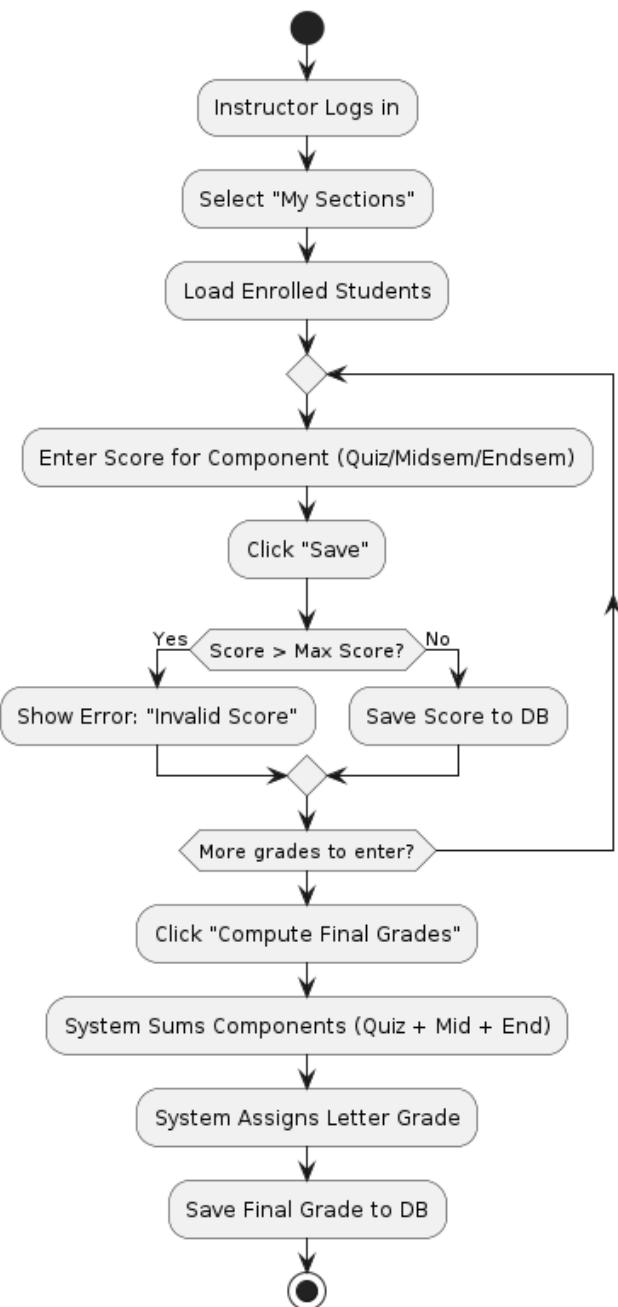


Figure 4: Activity Flow: Grade Entry and Computation

4.3 Maintenance Mode Toggle Flow

This flow illustrates the Admin's ability to toggle the global maintenance state and how it propagates to system settings and prevents modification actions while active.

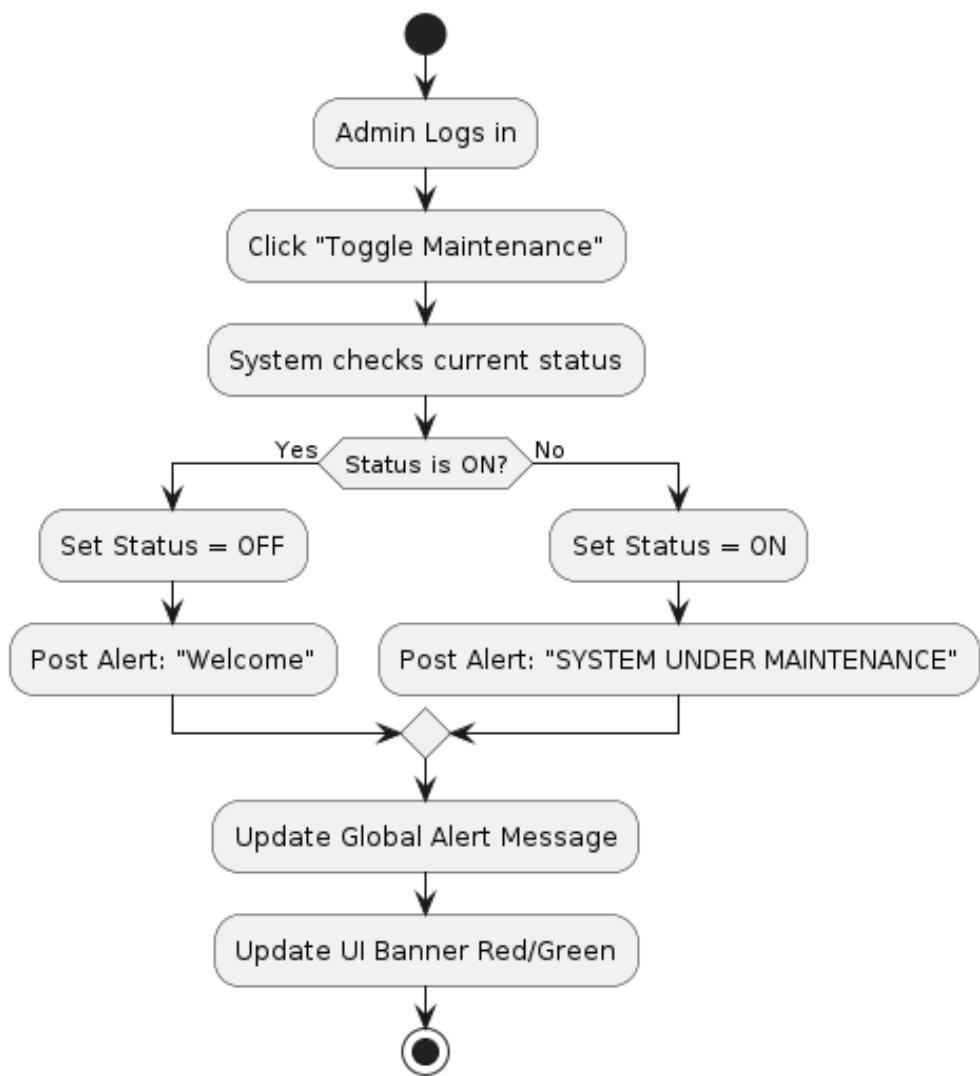


Figure 5: Activity Flow: Toggling Maintenance Mode