College Examination System

Scenario

Admin, Lecturer, and Student interact with the system to manage exams, perform examinations, and handle accounts and results.

Triggering Event

- Admin wants to manage users.
- Lecturer wants to create or publish an exam.
- Student wants to start an available exam.

Brief Description

The system enables Admin to manage users, Lecturer to create and publish exams, and Student to take exams and view results. All actions are secured by roles and logged for auditing.

Actors

1- Admin   2- Lecturer   3- Student

Related Use Cases

Manage Users, Create Exam, Take Exam, Publish Results, View Grades

Preconditions

- User must be logged in.
- User must have valid permissions.
- Database server must be available.
- Exam must be activated (for Students).

Postconditions

- All actions are saved.
- Logs are recorded.
- Student exam attempts are stored.
- Grades are updated after evaluation.

Flow of Activities

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1) Actor: Admin
Admin manages users, subjects, approves grades, and publishes results.

System (for Admin)
1.1 Shows Admin Dashboard with: Manage Users, Manage Subjects, Review/Approve Grades, Publish Results, View Reports.
1.2 Displays user list, search, Add/Edit/Delete forms.
1.3 Validates data, checks duplicates, saves changes, sends activation emails, logs actions.
1.4 Displays subject list, allows Add Subject, Assign Lecturer/Students, validates and saves.
1.5 Shows pending grades for approval/rejection and logs all decisions.
1.6 Publishes results, sends notifications, updates records, and logs action.
1.7 Provides reports and audit logs (CSV/PDF export).

2) Actor: Lecturer
Lecturer creates exams, adds questions, sets answers/duration, modifies exams, views grades.

System (for Lecturer)
2.1 Shows Lecturer Dashboard with exam tools.
2.2 Displays Create Exam form, question bank, add/edit question UI.
2.3 Validates exam fields and question completeness.
2.4 Saves & publishes exam, notifies students, logs the action.
2.5 Tracks exam versions, updates schedule, sends notifications if modified.
2.6 Shows student attempts, auto-graded results, manual grading panel.
2.7 Provides analytics (average score, question time, item analysis).

3) Actor: Student
Student views available exams, starts exams, answers questions, submits attempts, views results.

System (for Student)
3.1 Displays Student Dashboard with exams, attempts, results, feedback options.
3.2 Shows available exams based on eligibility.
3.3 Verifies rules, starts timer, locks navigation, logs attempt start.
3.4 Auto-saves answers, tracks timestamps, prevents multiple attempts.
3.5 Finalizes attempt, auto-grades, queues manual grading, shows confirmation.
3.6 Publishes results, sends notifications, allows re-correction requests.
3.7 Handles connection loss with auto-save and session recovery.
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Exception Conditions

General system errors such as invalid inputs, unauthorized access, unavailable resources, network interruptions, or any unexpected issue preventing successful operation.