



ព្រះរាជាណាចក្រកម្ពុជា
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Report Week 4: Course Enrollment & Classroom Scheduling System

| Name Of Students | ID Of Students | Score |
|------------------------|----------------|-------|
| 1. LOU Chumdararith | e20220360 | |
| 2. CHEANG Seyha | e20221098 | |
| 3. HENG Nguonhour | e20221565 | |
| 4. DIN Rasy | e20220514 | |
| 5. CHORK Ratanakdavide | e20221642 | |

Lecturer: ROEUN Pacharoth (TP)

Academic year 2025-2026

1. Team Lead (LOU Chumdararith) – Database & DevOps Lead

Security Hardening

- Eliminated critical security flaw by replacing hardcoded *studentId* = 3L with dynamic authenticated user resolution in *EnrollmentController*.
- Ensured students can only manage their own *enrollments*.

Architecture Cleanup

- Removed legacy *StudentController.java* to prevent routing conflicts.
- Split concerns cleanly: *LecturerViewController* now handles **only HTML views**; API logic moved to dedicated REST controllers.
- Centralized export logic into *AdminExportController*.

Frontend Stabilization

- Fixed routing (/student-view → /student) for consistent navigation.
- Resolved 500 errors in dashboard.html by correcting Thymeleaf property paths (e.g., en.offering.course.title).
- Secured “Drop Course” with proper POST form instead of unsafe links.
- Connected enter-code.html and schedule.html to backend services with correct form actions and data binding.

Service Layer Modernization

- Refactored *StudentService* into a proper interface with full implementation (*StudentServiceImpl*).
- Added **GPA calculation**, **credit tracking**, and **active-schedule** filtering.

2. Seyha – Admin Module Developer

- Implemented a complete **admin backend** with DTOs, service layer, and controllers.
- Delivered full CRUD for **users, courses, rooms, academic terms, and enrollments**.
- Enforced role-based access with `@PreAuthorize("hasRole('ADMIN')")`.
- Ensured data integrity and clean separation between UI and business logic.
- Provided aggregated system metrics for the admin dashboard.

3. David – Authentication & Security Developer

- Built a **dual-mode authentication system**: form login for web + JWT for APIs.
- Implemented secure “**Forgot Password**” flow with time-limited, single-use tokens.
- Created professional **403 access-denied** page with clear user guidance.
- Added startup safety checks to prevent runtime configuration failures.
- Ensured tokens expire after 24 hours and are stored securely.

4. Rasy – Student & Enrollment Module Developer

- Delivered end-to-end **student enrollment workflow** with waitlist support.
- Implemented **automatic waitlist promotion** when seats become available.
- Built my-courses.html UI for students to view and drop enrollments.
- Designed DTOs (StudentEnrollmentDTO) to simplify complex data relationships.
- Prevented duplicate enrollments and enforced course capacity rules.

5. Hour – Lecturer Module Developer

- Developed comprehensive **lecturer dashboard** with course, student, and schedule views.
- Implemented full **attendance management** (create, edit, delete, approve).
- Built **analytics and reporting** features: attendance trends, pass rates, course summaries.
- Added **CSV/PDF export** for grades, attendance, and reports using Apache PDFBox.
- Enforced strict **ownership verification**: lecturers only access their own courses.