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

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

   Architecture Cleanup

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

   Frontend Stabilization

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

   Service Layer Modernization

   - o Refactored *StudentService* into a proper interface with full implementation (*StudentServiceImpl*).
   - o 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.