

# CS162 - Programming Techniques – Final project – Student management system

Class: 19APCS1-2, 19CLC1-2-5-7-9-10

## Use-cases

- **All roles**

1. Login
2. Show menu
3. View profile info
4. Change password
5. Logout

- **Academic staff**

### Class

6. Import students of a class such as 18CLC6 from a csv file.
  - The csv file should include columns such as No (1), Student ID (18125001), Lastname (Nguyen Van), Firstname (A), Gender (Male), DoB (2000-04-01).
  - Remember to create student accounts based on their Student ID and their DoB.
7. Manually add a new student to a class.
  - For example, there is a new student enrolled in 18CLC6.
  - Remember to create a student account based on his/her Student ID and their DoB.
8. Edit an existing student.
9. Remove a student.
10. Change students from class A to class B
11. View list of classes.
12. View list of students in a class.

### Course

13. Create / update / delete / view academic years (2018-2019), and semesters (Fall).
14. From a semester, import courses such as CTT008, CTT010 from a csv file.
  - The csv file should include columns such as No (1), Course ID (CTT008), Course Name (Programming Techniques), Class (18CLC6), LecturerAccount (nhminh), Start Date (2019-01-07), End Date (2019-04-13), Day of Week (Wed), Start Hour:Minute (08:00), and End Hour:Minute (11:00), Room (I33).
  - By default, all students in the mentioned classes will be enrolled to imported courses.
15. Manually add a new course.
16. Edit an existing course.
17. Remove a course.
18. Remove a specific student from a course.

- For example, by default all students of 18CLC are enrolled in course CTT008, but because of a private reason, student Nguyen Van A is dropped from CTT008.
19. Add a specific student to a course.
    - For example, student 1753001 enrolls in CTT008 to improve his previous result.
  20. View list of courses in the current semester.
  21. View list of students of a course.
  22. View attendance list of a course.
  23. Create / update / delete / view all lecturers.

**Scoreboard:**

24. Search and view the scoreboard of a course.
25. Export a scoreboard to a csv file.

**Attendance list:**

26. Search and view attendance list of a course.
  27. Export a attendance list to a csv file.
- **Lecturer:**
    28. View list of courses in the current semester.
    29. View list of students of a course.
    30. View attendance list of a course.
    31. Edit an attendance.
    32. Import scoreboard of a course (midterm, final, lab, bonus) from a csv file.
    33. Edit grade of a student
    34. View a scoreboard
  - **Student:**
    35. Check-in.
    36. View check-in result.
    37. View schedules.
    38. View his/her scores of a course.

## Requirements

- Menu
- Data must be stored in file. You can define your own format but it must store all the information as described above. Be sure that, if I delete a csv file after importing, there is no harm to your system.
- Hash password (optional). Tip: SHA1, SHA256...