

# Individual Project (35%)

## - Student Attendance Management System

### A. Objectives

After the outbreak of COVID-19, many universities conduct online teaching via WebEx, Zoom, etc. To enhance teaching management, a web-based Student Attendance Management System is planned to be developed. Now you are employed to develop this system. Through this project, you are trained to build a user-friendly system and are able to criticize different models of web-based application development.

### B. Background

You are employed to develop attendance system for ISD year 1 students and teachers. All ISD year 1 students have same class schedule. They have 3 courses in the semester A,

AST10201 Computer Organization taught by Liu,

AST10303 Understanding the Network-Centric World taught by Yan, and

AST10106 Introduction to Programming taught by Pang.

The list of all ISD year 1 students can be found in student\_list.txt. The class schedule can be set by yourself.

### C. Basic Requirement

The UI interface of this system is created by yourself. You may refer to the link below to get more idea.

[https://www.capterra.com/sem-compare/school-administration-software?gclid=CjwKCAjwwMn1BRAUEiwAZ\\_jnEiDty-HEMWbKxeP-xw\\_vnQ\\_6-wGIvRJhoacd9sc9\\_kVw\\_uo5KACkVBoCqKUQAvD\\_BwE](https://www.capterra.com/sem-compare/school-administration-software?gclid=CjwKCAjwwMn1BRAUEiwAZ_jnEiDty-HEMWbKxeP-xw_vnQ_6-wGIvRJhoacd9sc9_kVw_uo5KACkVBoCqKUQAvD_BwE)

For teachers:

1. Log in the system and check every students' attendance history.
2. Publish the online teaching URL (the URL can be fake for your testing) with date and time.
3. Take attendance for students.

For students:

1. Log in the system and know his own attendance history in each course.
2. Click the teaching URL during the class time, then the system can **automatically** take attendance for himself/herself.

You are required to use **two methods** to implement this system:

- a) Method A: HTML5 + CSS3 + JS/JQuery + Ajax + JSP + Servlet + JavaBeans
- b) Method B: HTML5 + CSS3 + JS/JQuery + Ajax + (PHP/NodeJS/AngularJS...) + ...  
(Even if you have not learnt NodeJS/AngularJS, it is a good chance for you to improve self-learning skill, which is important for life learning.)

## D. Report

The report should be at least 1000 words, including:

1. User manual for your webpage.
2. Except the basic requirements, any new/creative functions you do to enhance UI.
3. Comparison two methods, listing the pros and cons of these two methods.
4. What have you learnt through this individual project? Which skills are improved through this project?
5. Which method is better for the system in view of maintenance and further upgrade (e.g. add new student, add new course)?

## E. Video

A 5-min long video is required to demonstrate the basic functions the highlights of your web-based system. How can your system help our teachers and students to take attendance and save more time?

In your video,

- remember to show the pros and cons of two methods
- show your face in the video

Upload the video to YouTube or Google Drive. Save the sharable link of your video to a txt file named as **videoLink.txt**.

(Note: Make sure your video is available to be downloaded by the end of June.)

## F. Submission

- Zip the following files and save as [studentID].zip. Upload this zip file to Canvas.
  - all source files
  - the url of your developed system (if you build real web server environment)
  - report
  - **videoLink.txt**.

Deadline: 11:55 pm on 19 May 2021

## G. Marking Rubrics

Graded Items	Criteria	Weighting
Your website	<ul style="list-style-type: none"><li>- The design of your web site is attractive or boring.</li><li>- UI is user-friendly or not.</li><li>- Use MVC model.</li><li>- Automatically take attendance for students.</li></ul>	18
Report	At least 1000 words. Answer all questions in section D.	10

Video	Video demonstrates all functions in your web based system. Video is well edited.	7
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