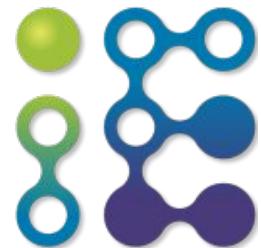


IEMS5731: Software Design & Development Project Instructions

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Project

- Form a group with at most 4 people.
- We use project as the basis of the grading. It means one-man band needs to deliver the amount of work the same as a group of 3-4 students.
- One member will be the leader. Leader needs to compete for the group number (group number is the same as presentation time).
- Any members can submit the **project source code**, **short report** and **signed VeriGuide receipt** to the Blackboard on or before Tue Dec 2, 2025. We will only grade the latest submission before the deadline.
- Any one member of the team signs the VeriGuide receipt.

Group number, demonstration slot for Mon Dec 1

Group number	Time	Break	2:00 - 2:10 pm	Break	3:40 - 3:50 pm
1	12:30 - 12:40 pm	10	2:10 - 2:20 pm	19	3:50 - 4:00 pm
2	12:40 - 12:50 pm	11	2:20 - 2:30 pm	20	4:00 - 4:10 pm
3	12:50 - 1:00 pm	12	2:30 - 2:40 pm	21	4:10 - 4:20 pm
4	1:00 - 1:10 pm	13	2:40 - 2:50 pm	22	4:20 - 4:30 pm
5	1:10 - 1:20 pm	14	2:50 - 3:00 pm	23	4:30 - 4:40 pm
6	1:20 - 1:30 pm	15	3:00 - 3:10 pm	24	4:40 - 4:50 pm
7	1:30 - 1:40 pm	16	3:10 - 3:20 pm	25	4:50 - 5:00 pm
8	1:40 - 1:50 pm	17	3:20 - 3:30 pm	26	5:00 - 5:10 pm
9	1:50 - 2:00 pm	18	3:30 - 3:40 pm	27	5:10 - 5:20 pm

Group number, demonstration slot for Tue Dec 2

Group number	Time	<i>Break</i>	<i>2:00 - 2:10 pm</i>	<i>Break</i>	<i>3:40 - 3:50 pm</i>
28	12:30 - 12:40 pm	37	2:10 - 2:20 pm	46	3:50 - 4:00 pm
29	12:40 - 12:50 pm	38	2:20 - 2:30 pm	47	4:00 - 4:10 pm
30	12:50 - 1:00 pm	39	2:30 - 2:40 pm	48	4:10 - 4:20 pm
31	1:00 - 1:10 pm	40	2:40 - 2:50 pm	49	4:20 - 4:30 pm
32	1:10 - 1:20 pm	41	2:50 - 3:00 pm	50	4:30 - 4:40 pm
33	1:20 - 1:30 pm	42	3:00 - 3:10 pm	51	4:40 - 4:50 pm
34	1:30 - 1:40 pm	43	3:10 - 3:20 pm	52	4:50 - 5:00 pm
35	1:40 - 1:50 pm	44	3:20 - 3:30 pm	53	5:00 - 5:10 pm
36	1:50 - 2:00 pm	45	3:30 - 3:40 pm	54	5:10 - 5:20 pm

Group Registration Phase I, Leader Group

- We use First Come First Serve basis under “Group” tab on the Blackboard
- First, the leader competes “**A Leader Group X**”
- The group number competition starts at **23:59 on Fri Nov 7**
- Join the group carefully, only Danny can un-enroll you.
- **In case of errors, please write email to Danny, and explain your scenario.**
- Leader also has the rights to clarify his members, by sending an email to Danny.
- For those who do not join any groups by Thu Nov 28, Danny will assign them as one-man band.

Group Registration Phase II, Member Group

- The leader informs the group number to the members.
- You can form a group across the sessions.
- Second, leader and all members join “**The Member Group X**”
 - **Leader should join the member group** as well
- The member groups opens in the **afternoon on Sat Nov 8**
 - You will see the project submission box after joining the member group.
 - Anyone can submit the work onto the box, and only the latest submission before the deadline is graded.
- Join the group carefully, only Danny can un-enroll you.
- **In case of errors, please write email to Danny, and explain your scenario.**
- Only leader has the rights to clarify his members, by sending an email to Danny.
- For those who do not join any groups by Thu Nov 28, Danny will assign them as one-man band.

Project Demonstration

- Your demonstration is suggested to be formatted as follows:
 1. **Introduction:** What is the app you have developed?
 2. **Required components:** Show all required components.
 3. **Features / Functions:** What are the three major functions?
 4. **Demonstration:** A trial run / an example usage / demonstrate all three important features
- Date of the presentation: Mon Dec 1, 2025 or Tue Dec 2, 2025
- Venue: WMY 504
- Remember to arrive earlier, and rehearse your demonstration beforehand.

More about the Demonstration

- At least one member demonstrates the work.
- Only the presenters can obtain the attendance record (capped by 5 points).
- Bring your own device.
- Do arrive in advance to rehearse your demonstration.
- No dress code requirements. It is more about the software engineering technology and skills.
- You can decide to demonstrate your work in English, Putonghua, or Cantonese.

Project Assessment

1. Theme of your application (10%)
2. Required components (10%)
 - o Frontend: Vite + Vue.js with JavaScript
 - o Backend: Node.js with ES Module + MySQL (at least 3 tables in MySQL)
3. Three major features / functions (45%)
4. User-friendliness and UI/UX design (10%)
5. Two use cases and their UML sequence diagrams (10%)
6. Demonstration performance (5%)
7. Project source code, short report and signed VeriGuide receipt submissions (10%)

Project Report (PDF)

- What should you include in your report:
 1. **Problem Definition**: What problem does your app try to solve?
 2. **Required components**: Show all required components, especially the database schema.
 3. **Features / Functions**: What are the three major functions of the app?
 4. **UI / UX**: Exactly four best screenshots from your app, with brief descriptions.
 5. **Use cases**: Describe two use cases in your project, and draw the corresponding UML sequence diagram for your application.
 6. **Reference**: A list of third-party libraries that you have used in your project
- You must use the report template.

Project Submission

- Create a folder name "**groupX**" (Replace X with your group number)
 - Create two folders "**backend**" and "**frontend**"
 - Put all your server source codes in the "backend" folder. Create sub-folders for better organization.
 - Put all your client source codes in the "frontend" folder. Create sub-folders for better organization.
 - Compress the folder using ZIP, and submit the "groupX.zip" file to Blackboard submission link under "Assignments and Projects" (link will be opened later).
- Remember to submit the short report and signed VeriGuide receipt.
- Do not compress the short report and signed VeriGuide receipt.

Features / Functions Example: Login and Registration

- 5 points: Demonstrate a classic login and registration system (similar to the in-class demonstration)
- 10 points: Demonstrate a classic login and registration system, with profile update page, and different types of data (text, number, image) are stored for a profile
- 8 points: Demonstrate a Google OAuth 2.0 login and registration system (fixing the issues in the in-class demonstrate)
- 10 points: Demonstrate a profile can be logged by classic login and registration system, or Google OAuth 2.0
- The full score of a feature / function is 15.

Features / Functions Example: Chat Room

- 5 points: Reproduce the single chat room in the class
- 10 points: A chat system with multiple chat rooms and private message
- 10 points: A single chat room with sticker, emoji, image message and voice message
- 10 points: A single chat room with video conferencing
- 10 points: A single chat room with a shared whiteboard

- The full score of a feature / function is 15.

Features / Functions Example: Backend Technologies

- 5 points: Maintain the project in a private repository on GitHub
- 5 points: Launch the service on the Google Cloud Console with a public URL
- 5 points: Set up a scalable running environment with Nginx on a Linux VM
- 5 points: Set up the docker image for running your application
- 5 points: Set up the communication across two devices without using the public URL

- The full score of a feature / function is 15.

Guideline to VeriGuide

- Only the group leader submits the group report to the VeriGuide once.
- Never re-submit your work to the VeriGuide.
- The box on the VeriGuide is called “assignment 1” under IEMS5731A/B.
- Only one member needs to sign the VeriGuide receipt.

- Link to VeriGuide:
https://veriguide1.cse.cuhk.edu.hk/portal/plagiarism_detection/login.jsp