SEN4017 GUI PROGRAMMING WITH PYTHON

PROJECT ASSIGNMENT

1. DEFINITION AND REQUIREMENTS

Pick a project topic suitable for a GUI application. Once you have decided on your topic, implement your project in **Python** using **tkinter** with the following parts:

a. Develop a fully functional GUI application with at least 6 different GUI windows.
   - At least 3 GUI windows must be developed for database tasks.
   - You can add more GUI windows if your application scope requires more.
   - Use SQLite for database tasks.

b. Add validation for all GUI forms which have data input functionality.
   - Prevent execution of database tasks with invalid input.
   - Inform the user about validation errors when detected.

c. Additionally, your project must include at least one of the following functionalities:
   - Internationalization support for two different languages.
   - Read/write spreadsheet.
   - Generate charts or plots.

2. PROJECT REPORT

Prepare a project report containing the following parts:

a. Briefly explain your topic and state member-task responsibilities.
b. Design a database according to your project topic and provide a schema diagram of it.
c. Add screenshots of each GUI window with their descriptions.
   - The purpose of each GUI window must be clearly explained.

3. PROJECT GROUPS

Students should form project groups consisting of **two or three** people. Each group will organize task responsibilities individually. Tasks must be shared equally between group members.

If a student leaves the group, the rest of the members must cover his/her duties.

4. IMPORTANT DATES

a. <u>Creating Project Groups:</u> 18 Oct. 2024 17:00
  - Submit your project topic and group members before the deadline.
  - Each project group needs to be formed with **two or three** students.
  - After the deadline on 18 October, students without project groups will be assigned to new groups randomly.

b. <u>Project Report and Code Submission Deadline:</u> 20 Dec. 2024 17:00
  - Save your project report as a **PDF file**.
  - Compress your code files into a **ZIP archive**.
  - Name the files with your student IDs. (e.g. 1234567-7654321.pdf and 1234567-7654321.zip)

c. <u>Presentation Submission Deadline:</u> 20 Dec. 2024 17:00
  - Record a video presentation about your project (in English).
  - Each group member should present his/her part of the project.
  - Each group member has **at most ten minutes**.
  - If you do not make your presentation, your project grade **will be zero**. No excuses are accepted.

5. SUBMISSION RULES

Use the provided submission links on [Itslearning](#) to upload your project report, code, and presentation files. Ensure that all submissions are made on time. Please do not send your project-related files via email or the Itslearning messaging system, as they won't be accepted through these channels.

6. CHEATING AND PLAGIARISM

Detected cheating and plagiarism (including AI-supported writing) will be graded as zero.