CS5/7319- Software Architecture and Design Project Presentation & Demo and Final Deliverable Guideline (19 Points)

On Campus and Off Campus Due Date: 11:59pm on TBD, 2024

- **Undergraduate Team Projects are allowed up to 15 minutes to present.**
- **Graduate Team Projects are allowed up to 17 minutes to present.**

The time limits are strictly enforced due to the class capacity. Please dry-run your presentation in advance to manage your time.

Your presentation needs to include:

[The number of slides are suggestive. Feel free to adjust as needed.]

1. **Project title, final project group number, and team members' names (1 slide*)**
   a. Project title
   b. **Final Project Group XX (Number)**
   c. Each team member's name, **5319 or 7319** sections, on/off campus
2. **Brief project description (1 slide*)**
   [Describe the major capabilities and operational scenarios of your project.]
3. **Architecture Option 1:**
   a. **A component diagram showing the components and connectors in the Level 2 architecture (1 slide*)**
   b. **The class diagram showing the classes and their associations (1 slide*)**
   c. **A mapping from each component/connector to its implementing classes in the class diagram (1 slide*)**
4. **Architecture Option 2:**
   a. **A component diagram showing the components and connectors in the Level 2 architecture (1 slide*)**
   b. **The class diagram showing the classes and their associations (1 slide*)**
   c. **A mapping from each component/connector to its implementing classes in the class diagram (1 slide*)**
5. **Compare and evaluate the pros and cons of each architecture option specifically for your system (1 slide*)**
6. **Rationale of your selection (1 slide*)**
   [Describe why the selected architecture option is better suited for your project, e.g., better satisfy specific non-functional properties, etc.]
7. **Risk Analysis (Only required for Graduate Students: 2 slides)**
   a. Identify the risky portions of both candidate architecture styles.
   b. Use the empirical evidence/data (quantitative and qualitative) that are collected through prototyping, simulation, implementation, analysis, and so on.
8. **Project Demo:**
   a. **The screenshot showing the successful code compilation, if applicable.**
   b. **Successful system execution, you may choose either of the following ways:**
   1) Live demo your system execution;

or

2) Present the screenshots showing the principal operational scenarios of your system only if the live demo is unavailable.

c. Projects is required to show the successful compilation and execution of your implementation for both candidate architecture styles.

Note: As compared to Undergraduate projects, Graduate projects are expected to provide a more in-depth analysis of architectural pros/cons, rationales, and risk analysis, ideally supported by quantitative and qualitative evidence/data collected by prototyping, analysis, and simulation of implementation of both candidate architecture styles.

Project Presentation & Demo Final Deliverables:

- **Create a public Github project repository containing:**
  - **Source code**
  - **Compiled code & executables**
  - **A Readme Word document with detailed instructions on:**
    1) your compilation & implementation platform with the version, where to download your implementation platform, how to install and configure the platform;
    2) how to compile your code;
    3) how to execute your system.
    4) Elaborate in detail on the difference between the architecture designs for both candidate architecture styles and the rationales for your final selection.
    5) You may change your candidate architecture options in the final deliverables and presentation from the project proposal. However, you must explicitly document the rationales for your changes to the project proposal in the Readme file.
    6) Other information you think is helpful for the grader to understand the rationales of your architecture design decisions.

  [Please ensure the TA/grader can easily compile your code and run/test your system.]

  - **Github Repo naming convention:**
    1. Name your Github project repository as "CS5/7319 Final Project Group XX-First Name 1-Last Name 1_First Name 2-Last Name 2 1_First Name 3-Last Name 3".

    2. **In your GitHub Repo, put all the source code and executables for the finally selected architecture under a directory named "Selected"; put all the source code and executables for the unselected architecture under a directory named "Unselected".**

    3. **In the Readme Word file, you must elaborate in detail on the difference between your implementations (e.g., source code, reusable components/connectors, etc.) for both candidate architecture styles.**
- **Submit your PowerPoint presentation slides (an individual file) on Canvas**
- **Submit a web URL to your recorded presentation & demo video on Canvas**

- You may simply use Zoom to record your presentation, showing your slides and a small speaker window on the upper right corner of the screen.
- **Please upload your video to YouTube without password protection, where we can directly click the URL and play your video using Windows Media Player without any add-on or decoder. Please ensure your presentation video is accessible until the final letter grade is posted on my.smu.**

How to Submit Your Final Deliverables?

For both on-campus and off-campus students, please submit the following deliverables by the indicated due date and time on Canvas.

- **Due to the limit of a single item that can be submitted via one submission link on Canvas, submit your presentation PowerPoint slides via "Project Final Deliverables" submission link.**
- **Put the following in the Comments Textbox in the "Project Final Deliverables" submission link: (1) a Web URL to your presentation video, and (2) a Web URL to your public Github project repository.**

Only the team leader will submit the Project Final Deliverables.

Grading

- **Grading is based on the quality, insights, depth, and efforts of both the final project presentation and final project deliverables.**
- **All students on a project team will receive the same grade.**