

A. Create your subgroup and project by logging into GitLab using the web link provided and using the “GitLab How-To” web link, and do the following:

- Clone the project to the IDE.
- Commit with a message and push when you complete *each* of the tasks listed below (e.g., parts B to E).

*Note: You may commit and push whenever you want to back up your changes, even if a task is not complete.*

- Submit a copy of the GitLab repository URL and a copy of the repository branch history retrieved from your repository, which must include the commit messages and dates.

*Note: Wait until you have completed all the following prompts before you create your copy of the repository branch history.*

B. Design and develop a fully functional full stack (mobile or web) software product that addresses your identified business problem or organizational need. Include *each* of the following attributes, as they are the minimum required elements for the application:

- code including inheritance, polymorphism, and encapsulation
- search functionality with multiple row results and displays
- a database component with the functionality to securely add, modify, and delete the data
- ability to generate reports with multiple columns, multiple rows, date-time stamps, and title
- validation functionality
- industry-appropriate security features
- design elements that make the application scalable
- a user-friendly, functional GUI

C. Create *each* of the following forms of documentation for the software product you have developed:

- a design document including a class diagram and design diagram
- link to where the web app is hosted with HTML code (if applicable)
- link to the GitLab repository of the code indicating the version included in this submission
- user guide for setting up and running the application for maintenance purposes
- user guide for running the application from a user perspective

D. Explain how the software product was tested, including the following:

- a test plan for a unit test, including screenshots
- unit test scripts

- the results of the unit tests based on the provided test plan, including screenshots
- summaries of changes resulting from completed tests

E. Provide a Panopto video recording that includes a demonstration of the functionality of the software application and a summary of the tool or tools used.