CSE3910 – CSE Project D

The purpose of this module is to develop project design and management skills to extend and enhance competencies and skills developed in other modules through a context that is personally relevant.

This project must connect with a minimum of two CTS modules, one of which must be an advanced Computing Science module (and other module done in Computing Science 30). *This project cannot be used in other CTS course project modules*. Other CTS courses offered at Lillian Osborne include Foods, Engineering Design, Construction, Sports Performance and Robotics.

This project assumes users are working in **pairs**.

NOTE: *NO toolkits such as Unity or Unreal Engine are permissible. Third party Python modules are permissible as long as they are installable with pip.*

NOTE: *Completing the project with another language is permissible. Ensure proper requirements documentation within your README.md file.*

NOTE: *Creativity and Innovation are the ingredients to success in this information age.*

Planning: The Proposal

The project must include a project proposal. *This project proposal must be approved before starting the project*. The project proposal must include the following:

1. A clear purpose or objective.
2. A complete flowchart or major algorithms of the program.
3. A set of UML tables if Objects are implemented.
4. If you are working with a partner, a table of functions or other documentation indicating each partner's role.
5. Be approved by the computing science teacher.

Programming

1. Program your code!
2. Ensure versioning is done and the project is pushed regularly to git.mikezhang.ca

Presentation

During the final week of classes, your project must be presented to the rest of the class. The presentation must be 4-6 minutes in length with a brief question period afterwards. The presentation must include the following:

1. A vertical slice demonstration of the project.
2. A presentation including the following slides:
    a. Why you/your team chose to develop this project.
    b. Which CTS modules the program implements.
    c. The most relevant planning component of the project.
    d. Source code of a challenging problem your group had to overcome. What made if challenging and a brief explanation of the techniques used to overcome the challenge.
    e. What would you/your team change in the program in the next iteration?

Module Assessment

Planning: 5

Mark	Description
5.0	Student submits all four components for the planning process. Each individual assignment is done to the best of the students' abilities.
4.0	Student submits all four components for the planning process. At least one assignment is incomplete or not done to the best of the student's abilities.
3.0	Student submits three or four components for the planning process. At least two assignment is incomplete or not done to the best of the student's abilities.
1.0	Student does not submit all components of the planning process. What is submitted is incomplete or does not meet expectations.

Project: 10

Mark	Program completeness and innovations
10	Student has gone above and beyond the expectations of the project. Changes have been incorporated into the program so that the program provides a professional look and feel for the user.
9.0	Student submits a program that matches all criteria from planning. There is clear evidence of incorporation of both CTS modules into the program.
8.0	Student submits a program that matches all criteria from planning. There is clear evidence of incorporation of both CTS modules into the program. There are visible bugs within the program that do not detract from the function of the program.
7.0	Student submits a program that matches all criteria from planning. There is clear evidence of incorporation of both CTS modules into the program. There are visible bugs within the program that negatively affect the function of the program.
6.0	Student does not submit a program that completes all criteria from planning. There are subroutines that are missing or incomplete; however, majority of the program functions as expected.
5.0	Student does not submit a program that completes all criteria from planning. There are subroutines that are missing or incomplete. These missing or incomplete subroutines prevent the program from adequately functioning.
3.0	Student participated in this module during class time, but did not submit the project for assessment.

Presentation: 5

Mark	Description
5.0	Students demonstrate their project and present each slide in their slideshow.
4.0	Students demonstrate their project and present each slide in their slideshow. At least two slides are incomplete or missing.
3.0	Students do not demonstrate their project, but the presentation includes all correct slides. OR Students demonstrate their project and present each slide in their slideshow. At least three slides are incomplete or missing.
1.0	Students do not present their project or slideshow.

Basic Competencies: 3

Mark	Description
2.0	Student demonstrates mastery in communication, information management, time management, problem solving skills and collaboration. Student took responsibility for the completion of this module. Any distractions were minimal.
1.0	Student demonstrates proficiency in communication, information management, time management, problem solving skills and collaboration. Student demonstrated lapses in attitude and behaviour and detracts from the student's responsibility for the completion of this module. Any distractions during class-time were significant and affected the quality of the final project.
+1.0	The project is completed in pairs or a pre-approved group of three.

Reflection: 2

Mark	Description
2.0	Student demonstrates thought and insight when completing the project reflection questions.
1.0	Student submits the reflection questions; however, answers are superficial.