CSCE 315 - PROJECT 2 SPECIFICATIONS

Overview

This project will consist of the design and development of a database management system (DBMS) and a corresponding graphical user interface (GUI) for processing a large amount of data. This is a team-based project, with four or five students per team decided by the instructor. Teams with more members will be given additional deliverables to achieve.

Deadlines

Phase	Deliverable	Deadline
Phase 1	Planning Documents	Monday, February 17, 2020
Phase 2	Database Management System	Monday, February 24, 2020
Phase 3	Graphic User Interface	Monday, March 2, 2020
Phase 4	Large Dataset Processing	Monday, March 16, 2020

Outcomes

This project will introduce or further your experience in the following concepts:

- **Phase 1.** Design documents.
- **Phase 2.** Database management system development. Database language usage. Data structures. Backend development.
- **Phase 3.** User interface development. Frontend development.
- **Phase 4.** XML parsing. Large data processing. Database Connectivity.
- **Overall.** Version control. Project teamwork.

Pre-Project Preparation

Before starting work on the project, have your project team become familiar with the following resources.

- **Group Communication Software.** Communication is key in project work, and this project is no exception. It is highly recommended that your project team utilize group communication software on eCampus or tools such as Slack or GroupMe.
- **GitHub.** Software development version control is an especially important resource for project teams to manage their code together. For this project, you are required to use GitHub not only for version control of your software, but for also documenting your project. The University offers free accounts for using GitHub (http://github.tamu.edu), and your project team should make use of this resource.

Full Project 1 Grading

Grading for Project 1 will consist of the team grade and the individual grade. The grade for the individual members of the team will be based on adjusted accordingly to the team grade from the peer review.

Team Grade

%	Phases
100	**Project 1**
20	Phase 1. Design Document
25	Phase 2. Database System
25	Phase 3. Graphical User Interface
30	Phase 4. Large Database Processing

Individual Grade

Your individual grade will be based on the team grade, and will be calculated from the peer review in terms of individual workload distribution during the project.
- Individual workload distribution as a percentage. Must add up to 100%.
- Formula for individual score calculation is as follows:
  - $individual\ score\ =\ min(\sqrt{\frac{your\ percentage\ \times\ number\ of\ team\ members}{100}} \times team\ score, 110)$
- Note that 25% and 20% is the baseline for teams of four and five, respectively (i.e., equal contribution by all team members).
- Example 1: if your contribution was 20% and your 4-person team score was 85, your individual score is:
  - $individual\ score\ =\ min(\sqrt{\frac{20 \times 4}{100}} \times 85, 110)\ =\ 76$
- Example 2: if your contribution was 30% and your 4-person team score was 85, your individual score is:
  - $individual\ score\ =\ min(\sqrt{\frac{30 \times 4}{100}} \times 85, 110)\ =\ 93$