SECP2523 – DATABASE (WBL)

SEMESTER 1 2023/2024

PROJECT BASED LEARNING:
DATABASE APPLICATION PROJECT OVERVIEW

ORGANIZATION: AKMAJU RESOURCES, SEGAMAT JOHOR & YOUTHVENTURE, CYBERJAYA

DESCRIPTION:

This description describes the overview of the complete project. The details of the project phases are described by the lecturer in the class. The project is a collaborative project of three WBL (3) courses, which are SECP2523, SECP2613, and SECP3723. In this project, in a group of four (group members are set at the beginning of the semester in one of the WBL courses for this collaborative project), students are required to develop a database application solution for the stated client using the learned design techniques and programming learned from all three courses. Brief overview of the project will be given by the industry in the "Industry Day 1" session. Students are required to discuss with the industry and the lecturer throughout the project time frame. At the end of the semester, students are required to present their solution to theorganization in the "Industry Day 2" session. The solution developed will be assessed by the industry and the lecturers.

The project is comprised of 4 phases:

i) PHASE 1: Gathering Requirement, Identify Problem and System's Requirements

In this phase, students need to identify a suitable system for the organization. Students are required to conduct information-gathering process and discussion with the organization. The deliverable of this phase are:

(1) A report that contains the proposed system requirements (i.e., the proposed system functionalities). Further details of content of the report are described in the ***Proposal_Template.docx***.
(2) A video of the interview session(s) with the client in gathering information to prepare this report.

P1 REPORT DUE DATE: 18 NOV 2023 (SATURDAY) – 5:00 PM

ii) PHASE 2: Produce System's Conceptual Design Data Model Based On Requirements Identified

Based on the system's functional requirements identified in Phase 1, students are required to:

(1) Identify all database transactions that support the proposed system functional requirements.

(2) Design the conceptual data model to support the database transactions in (1). The conceptual design produced must be verified against the identified requirements. Students need to refer to the slides/book to see how a verified conceptual design looks like. The deliverable of this phase is a report that contains the system requirements with detail database transactions, the verified conceptual database design and the data dictionary of the conceptual design. Further details of the report are described in the report template for P2.

P2 REPORT DUE DATE: 2 DEC 2023 (SATURDAY) – 5:00 PM

iii) PHASE 3: Part 1: Logical Design

From the conceptual design produced in Phase 2, students are required to produce the logical design of the system. The outcomes of the design are the relations schema, data dictionary, local logical ERD, and global logical ERD. Each group is required to PRESENT their logical design to the lecturer.

PRESENTATION DATE: 16 DEC 2023 (SATURDAY) – 5:00 PM

(iv) PHASE 3: Part 2: System Implementation

In this phase, the system is developed using a learned development tool. The database of the system must use a DBMS (MySQL). Students must incorporate the SQLstatements for each identified database requirements. The deliverables of this phase arethe P3 report and a complete system that represent the system requirements and design.System must be tested by the system owner and user. System is to be demonstrated on the Industry Day 2. Further details of the report are described in the report template for P3.

P3 REPORT DUE DATE: 6 JAN 2024 (SATURDAY) – 5:00 PM