TFB1023 Database Systems
PROJECT GUIDELINE
SEMESTER SEPTEMBER 2023

(1) Introduction

- Students who are taking this course are required to develop a database project as part of the course works. The project will carry 15% of the total assessment mark.

- Students are free to form own groups of maximum FOUR (4) members. Each person should effectively contribute in their group. [NOTE: individual score will be given based on overall project score, multiplied by weightage given by peer assessment as well as lecturer's assessment during project demonstration].

- The final due date for submission is on Friday, 5pm of Week 11th ▪ The group must develop a database containing **AT LEAST FIFTEEN (15)** interrelated entities.

(2) Tasks to be done

Phase 1

- Form a group of maximum 4 members.

- Discuss among your group members the relational database that you would like to develop.

- [NOTE: Common databases (that can easily be found on the Internet) such as CINEMA/MOVIE ticketing, HOTEL booking, HOSPITAL/CLINIC patient management and UNIVERSITY course enrolment related databases are not allowed]

- On a piece of paper provide the name of all group members. Write a brief description of the database that you would develop, and list the main entities involved – Submit to your lecturer for approval before continuing with the next task. (By Thursday of week 7 – lecture time)

- Example: Database for TV programs. Description – the database is for keeping information regarding TV programs scheduling at a TV station… The main entities involved will be PROGRAM, STAFF, INVITEES, AIRSCHEDULE, STUDIO, PROGRAMCONTENT, CATERER, etc.

Phase 2

- Once approved, proceed with the sketch of the logical data model (ER diagram) for the database.
- Map the model to relational database schema.
- Provide data dictionary describing each table and attributes of the database.

Phase 3

- Write Oracle code for creating the database. Include constraints where applicable.
- Populate the database with at least 5 records per table.

Phase 4

- Formulate at least TEN (10) different queries (e.g., first query, projection on single column, second query, selection using logical operator, third using pattern matching, …, join, aggregate function, etc.) to retrieve data from the database.
- Run each query, and screen capture the results
- Write a sample update query, and a sample delete query.

Phase 5

- Write complete report for submission.

(3) Submission requirements

1. Hardcopy report containing:
    - Report cover
    - Brief introduction of the database
    - All sketches, codes, outputs pertaining to the tasks in phase 2 till phase 4.

2. Softcopy in .txt format containing:
    - All Oracle codes

(4) Project presentation

- There will be project demonstration and evaluation on Week 12.