TEB1103
Data and Information Management
Database Project Guidelines
(Part 3)

<u>INTRODUCTION</u>

Students enrolled into the course are required to develop a database project for satisfying one part of the subject's total assessments. The project will carry 19% of the total assessment marks. Students are allowed to work in a group of maximum 3 persons for the project.

<u>OBJECTIVES</u>

After the completion of the project, all students should be able to:

- Apply the theoretical knowledge gained in class to a real practical database design and application.
- Work according to schedules.
- Work in groups, which is the common mode of work in the real business world. (Tasks should be properly spread between group members. Team leader will be accountable and responsible in overseeing and monitoring the team progress and any other issues related the project.)

<u>PROJECT REQUIREMENTS</u>

<u>The Submission Deliverables (softcopy)</u>

The softcopy (CD OR THUMBDRIVE) should contain the followings:
- 4 files for joining tables (***ONLY 3 TABLES ARE ALLOWED FOR REUSE FROM PREVIOUS JOIN TABLES. ONE TABLE CAN BE USED 2 TIMES ONLY. EXPLOSION TABLES ARE NOT COUNTED AS REUSE COUNT OR TABLE USED***)
    - 1st file: Displaying **ONE (1)** non-primary attribute of each table and **ALL** data rows from joining **TWO (2)** tables.
    - 2nd file: Displaying **ONE (1)** data grouping and **ONE (1)** data aggregation from joining **FOUR (4)** tables with **TWO (2)** additional data selection constraints from different tables. The data selection constraint needs to use **AND** boolean and every constraint has only a single value. Displaying at least **4 ROWS** of data.
    - 3nd file: Displaying **TWO (2)** attributes from each **SIX (6)** tables with **THREE (3)** additional data selection constraints from different tables. The data selection constraint needs to use **AND** boolean and every constraint has only a single value. Displaying at least **5 ROWS** of data.
    - 4rd file: Displaying **ONE (1)** attribute from each **EIGHT (8)** tables in **descending order** with **FOUR (4)** additional data selection constraints from different tables. The data selection constraint needs to use **AND** boolean and every constraint has only a single value. Displaying at least **3 ROWS** of data.
- 1 file: **VIEW** statement displaying **ALL** data of **THREE (3)** primary key attributes from joining **THREE (3)** tables with **ONE (1)** additional data selection constraint from different tables. The constraint has only a single value. Displaying at least **6 ROWS** of data.

The Final Submission Deliverables (hardcopy ring binding)

The written report should include the followings:
- o Finalized EER Diagram
- o Finalized Relational Schema
- o Finalized Data Specification
- o Finalized Data Layout
- o SQL statements/codes of 3 files for:
  - creating all tables.
  - populates the tables with data.
  - dropping all tables
- o SQL statements/codes of 5 files for joining tables.
  - Write a scenario or story for each file on how the tables should be combined or joined.
    Ex: " *This query is to find the first name, the last name and the phone number of an employee who is the 'manager' of the company and works in 'day' shift. It is also to find the manager who has a 'car' that type 'ford' and the car was made in 'Australia'* "
  - Print the output layout (at least three data selected) of the combined or joined tables. Avoid 'Cartesian Product' (an output that projects every possible combination of data)

THE DATELINE

The latest date for submission of deliverables will be on your group **PRESENTATION DAY**.
NOTE: The group is also expected to demonstrate the working product to either the lecturer(s) or the tutor(s) if requested.