School of Computer Science – Coursework 2

Session	2017/18	**Semester**	2
Module Name	Databases and Interfaces	**Code**	AE1DBI
Module Lecturer	Prof. Dr. Sherif Kassem Fathy		

Coursework Name	Databases and Interfaces	**Weight**	25%
Deliverable	Tasks will test an aspect of the taught material, the database design, and the implementation capabilities		
Format	One Power Point Presentation file must be submitted to Moodle together with one Word Processing file		

Issue Date	3 April, 2018
Submission Date	23 April 2018
Submission Mechanism	Moodle. No other methods are accepted
Late Policy	Strict - No late submission. Students will be informed during lectures and lab sessions of this policy
Feedback Date	On line feedback is given after students' seminar during either lecture or lab or Moodle
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Instructions	Complete the tasks provided before the deadline
Assessment Criteria	Each part of the task will have a specific mark
Innovation	30% of the final mark is dedicated for innovation

Task Description

1. Introduction:

In the previous course work one (CW01), the aspects of the taught material and the database design are tested. The main task of course work two (CW02) is to demonstrate the implementation capabilities of the previous design in CW01. Each group will use the DBMS for implementation.

2. Objective

The main objective of second Course Work (CW02) is to use SQL instructions to implement the conceptual database model in Cw01. Each group must choose the database system application in CW01 for implementation

4. Procedures

Each group must perform the following tasks:

1. Create the Database with suitable name
2. Create each table in the database
3. Add all attributes in each table
4. Write the corresponding queries to retrieve the data in database. In SQL chapter in the lectures and reference book, we describes about 25 varies queries for COMPANY database. We enumerate each query like Q0, Q1, … etc. In this course work, each group must use the same enumeration and must write similar queries, but for your own database. For example in Q0 in COMPANY database:

```
Q0:  SELECT BDATE, ADDRESS
        FROM    EMPLOYEE
     WHERE  FNAME = 'John'  AND
                MINIT   =  'B'      AND
               LNAME =  'Smith'
```

If your database is for example HOSPITAL database and it has a PATIENT table, then Q0 will be:

```
Q0:  SELECT BDATE, ADDRESS
        FROM    PATIENT
```

```
WHERE  FNAME = 'FIRST NAME'  AND
       MINIT   =  'MIDDLE INITIAL'      AND
       LNAME =  `LAST NAME`;
```

5. If the database does not have a similar query, then try to adapt your database or invent a new table(s) just for demonstrate the query
6. The word file will contain only all SQL commands and the corresponding queries to create and retrieve the data in the database
7. For each SQL command, show the screen shoot of each query with the corresponding output. All screen shoots and the corresponding procedures must be described in details in the power point file.

5. *Deliverable*

Each group must write all SQL instructions in single word processing file. The SQL instructions must have the following:

1. Database creation
2. Creation of each table in the database
3. Instructions to add all attributes in each tables.
4. All similar queries with the same sequence as in lectures and the reference book

A complete description of each query together with screen shoot and its corresponding output must be submitted using power point file to check the correctness of each query.

Schema intension, extension, and referential entity constraints from (CW01) must be added in power point file too, and any related information.

Please, be motivated.

Innovation is part of the final mark.

30% of the final mark is dedicated for innovation.