**

***ADBMS***

**Assignment**

**2024**

Submission Deadline:

Coursework Type: Group Assignment (10 members max)

Module Leader: S.Naji

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**Coursework**

Select any real time organization and develop a total advanced database system with advanced processes Like Business Intelligence/ Mining or any other.

\*\* Organization Details & Confirmation should be attached

**Deliverables**

You should submit **a document (both soft copy and hard copy)** containing:

**Section 1:**

* A basic introduction to the scenario with the important facts you have identified and considered to your solution. (Do not copy and paste the given scenario as it is)
* An Entity Relationship (ER) or Extended Entity Relationship (EER) Diagram showing all of the entities, their attributes, relationships, cardinality ratio and the participation constraints. (Should include a sensibly resized diagram which clearly show all the elements)
* A list of any additional assumptions you have made which affect your solution.
* Relational Mapping (Have to clearly indicate the steps of relational mapping with all table attributes, primary keys and foreign keys)
* Data Normalization (Have to clearly indicate all the steps of up data normalization up to Third normalization form).
* Data Dictionary of each normalized table. (Should contain all the details about each table field)

**Section 2:**

* Microsoft SQL Server **Create Table** statements with related **Constraints** for each table to validate data. (Should include sensibly resized screenshots of all the table creation statements which clearly show all the SQL statements)/ can use Oracle too
* Database Diagram of your solution. (Should include a sensibly resized diagram which clearly show all the elements)
* A set of relevant and sensibly sized screen shots showing all the tables in your application with some meaningful sample records. (Should insert more than 10 meaningful sample records to each table in your database).

**Section 3:**

* Microsoft SQL Server **Create Trigger** statements for the triggers that you have created. (Should create at least two triggers for your database and should provide sensibly resized screenshots of the SQL statements)
* Microsoft SQL Server **Create Function** statements for the user defined functions that you have created. (Should create at least two user defined functions for your database and should provide sensibly resized screenshots of the SQL statements)
* Microsoft SQL Server **Create View** statements for the database views that you have created. (Should create at least two database views for your database and should provide sensibly resized screenshots of the SQL statements)
* Microsoft SQL Server **Create Procedure** statements for the stored procedures that you have created. (Should create at least two stored procedures for your database and should provide sensibly resized screenshots of the SQL statements)

**Section 4:**

* Using any of the Language create an application to show that the database functionality.
* Select any single operation to show that the functionality.
* **Include any Advanced Database algorithms to include the Business Intelligence or Mining operation with databases.**

**Submission**

A complete backup of your database (.bak) with a softcopy of Deliverable 1 (.docx or .pdf) and the Presentation slide show (.pptx). Note that any part of your submission in an incorrect file format cannot be marked. Coursework may be submitted at any time ahead of the deadline time. Please note the University regulations concerning late submission of coursework. Please note that the late submissions of project deliverables will not be assessed.

**Evaluation**

You will be required to present 20 minutes presentation as group and individual Q&A session will be scheduled Later

The presentation and viva will be taken according to a schedule prepared by NSBM. Students will be informed about the schedule prior to the submission.