CA2 Lab Report 20%

The objective of the CA Practical report is to demonstrate the various ways that you can connect to an oracle database. There are two parts

A - Connection to Oracle XE database using SQL developer on your own PC, college, or VM
B – Connection to your Cloud Database using SQL developer installed on own PC, College VM
You must complete each part of this report using the section guidelines in part 2 below

1. For this CA you will complete a report that contains the following parts:

A. **Oracle XE** –

- Create a connection to **system** on college machine, VM or Home PC.
- Create a username schema called **student.**
- Connect to student and run the createStudent.sql script to create the tables and populate with the provided inserts. This script files to create the student user and the tables and inserts are available on BB. Refer to Figure 1 on page 3.
- Write a Query to describe the structure of one of the tables.
- Write a query to select from the tables. Ensure your query demonstrates the following:
    - Joins data from 3 or more tables
    - Uses 2 or more restricting data operators or keywords
    - Uses an aggregate function
    - Alias all columns appropriately

(*For practice*, create your management schema in the system connection, connect to management and run the mgt_schema_script.sql script to create the tables and inserts. Video demonstrations are available in the Oracle Environment Folder on BB).

B. **Oracle Cloud** –

- Create your Oracle Cloud account(using the email you received from Oracle).
- Create a Database Instance
- Obtain an instance wallet
- Connect to the cloud database using SQLdeveloper installed on your home PC, the college machines, or from the LYIT VM.
- Create the same user schema called student on the cloud database
- Connect to student and run the createStudent.sql script to create the tables and populate with the provided inserts. This script file is available on BB. Refer to Figure 1 on page 3
- Write a Query to describe the structure of one of the tables
- Write a different query to select from the tables. Ensure your query demonstrates the following:
    - Joins data from 3 or more tables
    - Uses 2 or more restricting data operators or keywords
    - Selects a date column datatype
    - Uses an aggregate function
    - Alias all columns appropriately

(*For practice*, create your management schema using your ADMIN connection, connect to management and run the mgt_schema_script.sql script to create the tables and inserts. Video demonstrations are available in the Oracle Environment Folder on BB).).

2. Lab Report Sections Instructions:

This is a formal report. It will start with some basic header fields, which need little explanation.

Student Name:

Course:

Module:

Lecturer:

Submission Date:

The report must define the method for performing the following FOR EACH part (in bold):

Aims or description. Define the purpose of the lab by discussing the Oracle database architecture and outline the various ways that you are going to demonstrate how to make a connection to an Oracle database.

Methods. This is where you will describe the steps completed during the practical work to complete each part/exercise. You will begin by detailing equipment/resources used. On procedural work (as in this practical CA) this will be the most substantial part of the report. The best way to consider what should be in this section is that it should provide adequate instructions for any other student to carry out the same work, without any other information source. It will consist of text and include screen shots(must be captioned).

The final sections of your report are your **Results/Discussion and Conclusions**. In this section of your report you discuss the results, you interpret them and provide further recommendations

The final document should be readable and should have a natural flow.

3. Note

At this level, it is expected to see a clear understanding and analysis of the practical work.

The report sections should be professional and well presented. Marks will be deducted for poor presentation, grammar or spelling.

Screen shots and images should never be presented in isolation (e.g. without text) and should only be used where they contribute to the information presented.

4. Plagiarism

All work must be entirely your own.

You must properly reference any material you use during the course of the work. You should use the Harvard referencing system. Your list of references will appear at the end of the report.

Submission – Week beginning 28st March

The report must be submitted to the **blackboard link** provided. You must **also** submit a **hard copy to me in your practical class that week** that is accompanied by a **CA cover sheet available on BB**.

Specifically, For your Lab report.

Create a schema called *student* on your home PC or VM and the cloud database.
Connect as student and run the scripts available in the Schema scripts folder, Student Schema folder on BB. This script has a lot of inserts and will take a while to complete.
Complete the remaining tasks.

Ensure you write the report up using the Lab report Sections(section 2) and Instructions.

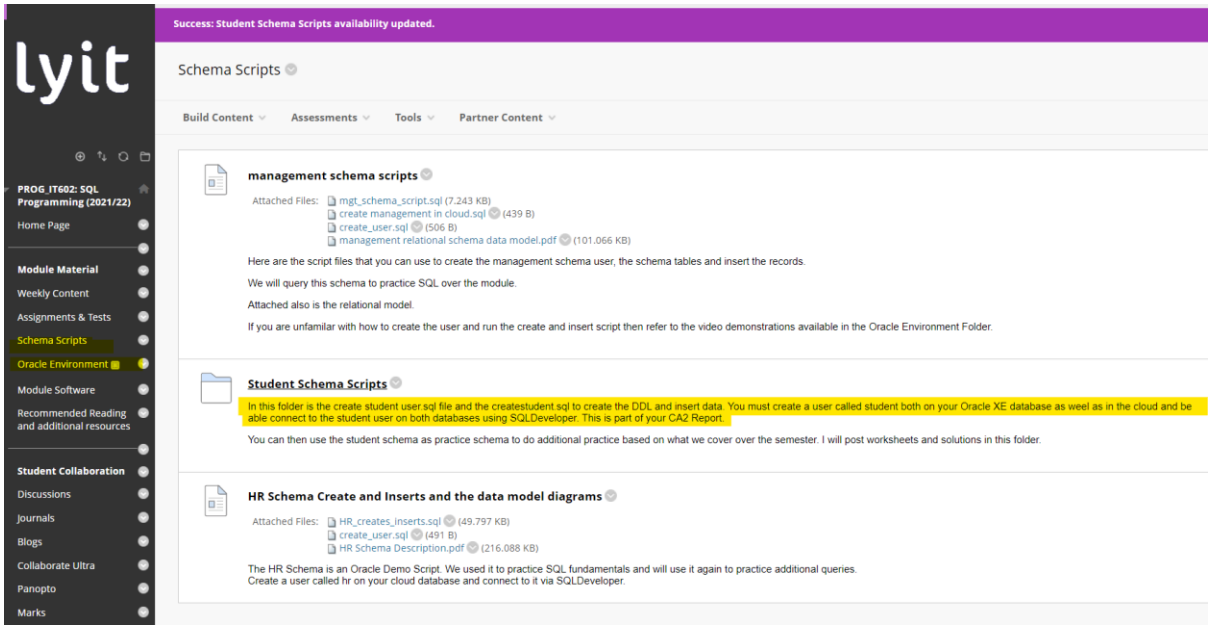

Figure 1- Schema Scripts are available on BB