7BDIN006W.1 BIG DATA THEORY AND PRACTICE

Week 4 Seminar Tasks

Exercises on SQL

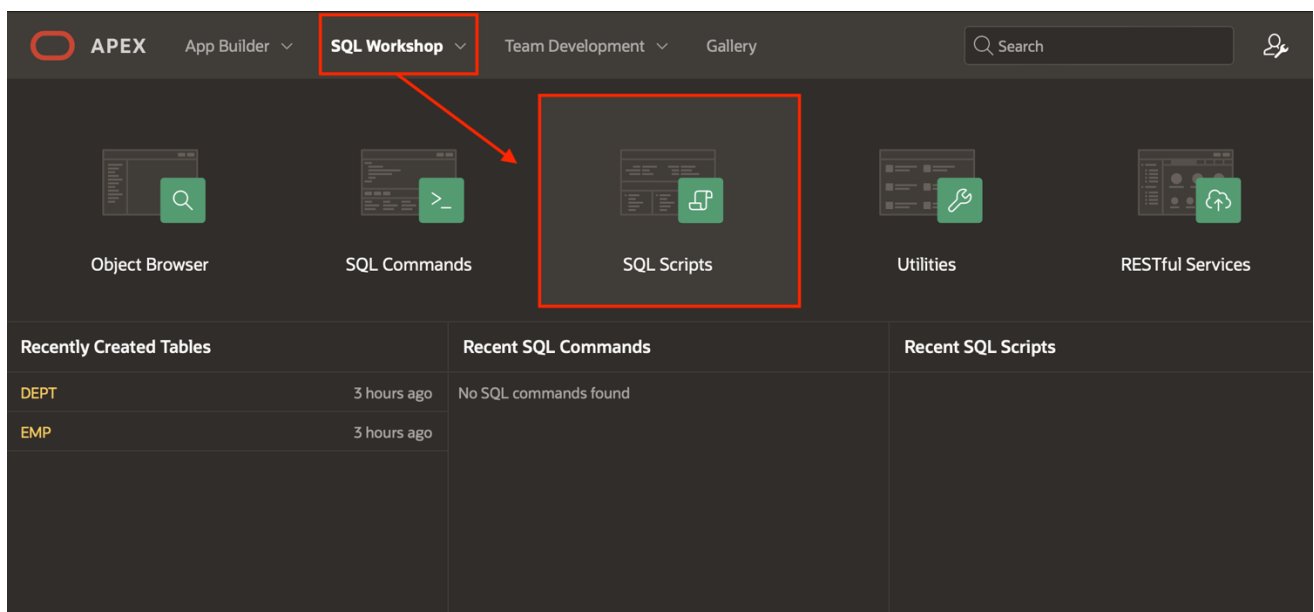### TASK 1. UPLOAD THE DATASET FROM THE FILE.

We will need an additional dataset related to the EMP / DEPT tables for the next set of SQL tasks today. ORACLE APEX doesn't have it in Sample Datasets, so we have to upload it from a file.

You may find the file called *emp_db.sql* with the SALGRADE table SQL script on Blackboard.
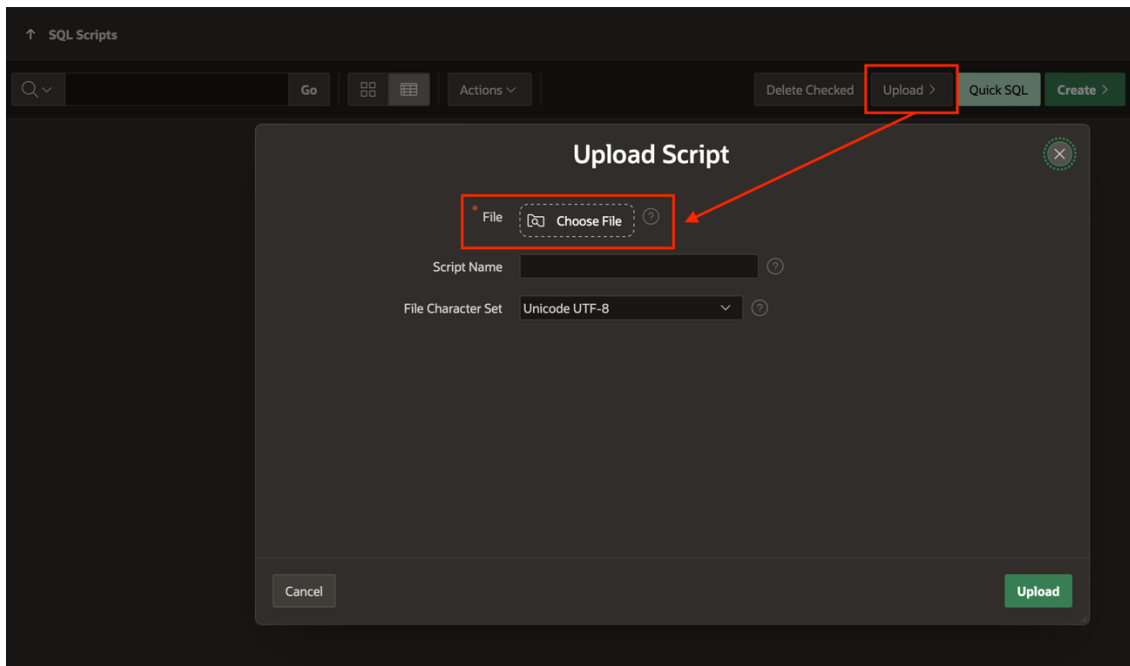
Step 1. Download the file on your computer.
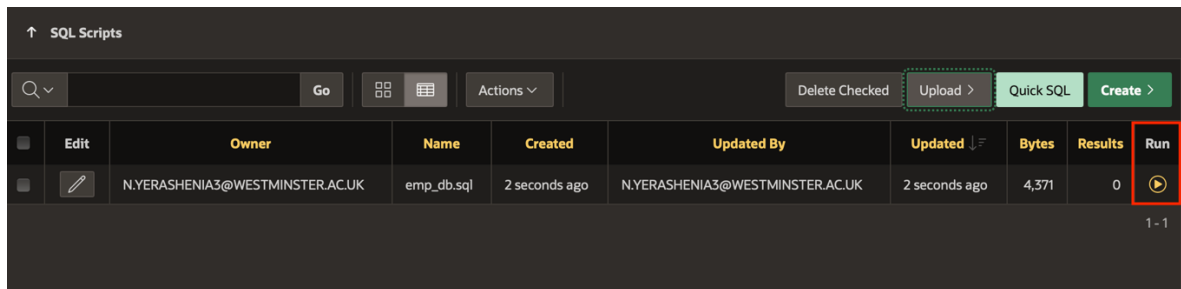
Log in to Oracle Apex.

Go to SQL Workshop, then to SQL Scripts.

Click the Upload button, then Choose File, and pick the downloaded *emp_db.sql* file. Press "Upload".
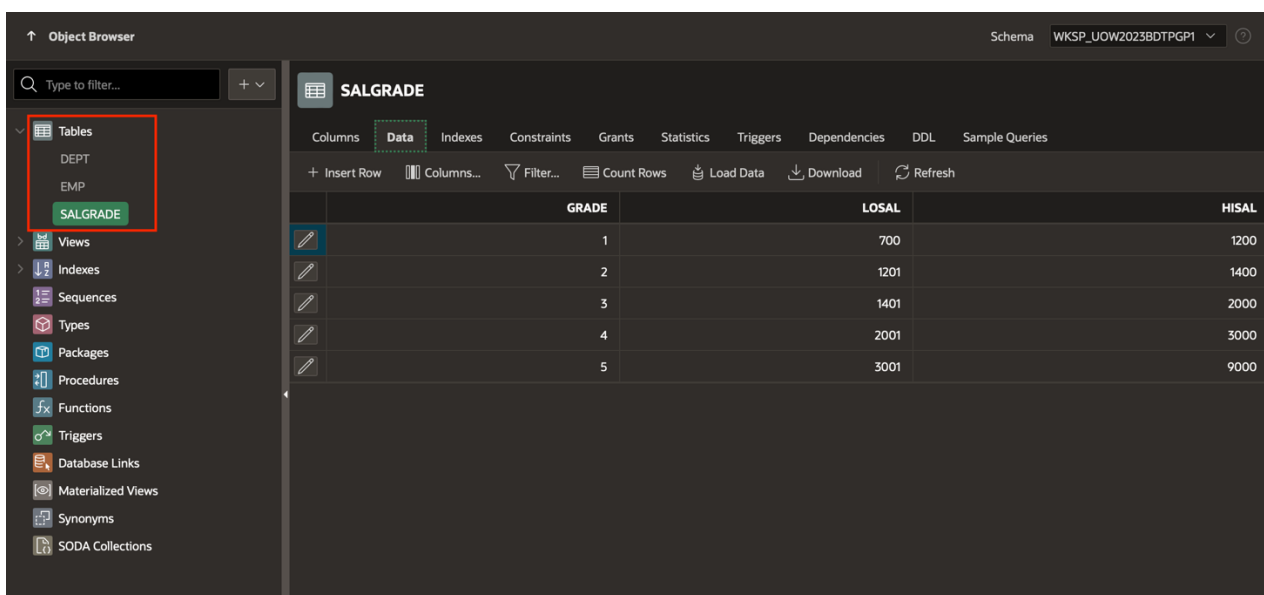
Now, click the Run button (shown below), then the green button Run Now.

The new SALGRADE table has been created now!

If you go to Object Browser, you will see the new table in the list.

TASK 2. SQL

Consider the *emp*, *dept*, *salgrade* tables.

Write SQL expressions to generate queries, ensuring they align with the below specifications.

Refer to the *Lecture 3 Notes* as a foundational guide for constructing your expressions.

Note: For these tasks, the corresponding solutions will not be provided immediately. They will be made available at the end of the week to give you ample opportunity to explore, attempt, and learn from this exercise. Utilise this chance to delve deeply into the task, experiment with different approaches, and solidify your understanding of SQL expressions and querying.

a. Display details of employees who work either as managers earning more than £1500 or as salesmen earning more than £1200.

b. Display details of employees who work either as clerks for dept. 10 or as managers.

c. Display details of employees who do not work as managers or for dept. 20.

d. Display details of employees whose employee numbers are between 7500 and 7799 inclusive, and who work either for dept. 30 or for dept. 10.

e. Display employees who earn more than 1200 in commission or salary.

f. Display the employees whose combined earnings is more than 1500.

g. Display details of employees whose empno value is less than that of their manager's.

h. Display details of employees whose names are four letters long.

i. Display details of employees whose names do not contain the letter 'R'.

j. Display names of employees, whose name the penultimate character is 'E'.

k. Display employees who work for the Sales department.

l. Display details of employees who either have the same job description as that of JONES or whose salary greater or equal to that of FORD.

m. Display details of employees whose job description is among the job descriptions of employees working for a department located in CHICAGO.

n. Display details of employees who work in N.Y. or CHICAGO.

o. Display details of employees in grade 3 who work in CHICAGO.

p. Display details of employees in grade 3 or 4, who work in N.Y. or CHICAGO, whose job description is SALESMAN and whose name contains the letter "N".