7BDIN006W.1 BIG DATA THEORY AND PRACTICE

Week 7 Seminar Tasks

Exercises on SQL

Log in to Oracle Apex.

Refer to the *Lecture 5 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.

PART A

Consider the **Oracle Employees** database. Write SQL expressions for the following query:

Display job descriptions groups whose average salary is greater than the average salary of their managers.

PART B

Upload the "election_db.sql" file provided on Blackboard to Oracle APEX. Provide SQL solutions for the following queries involving tables of the **UK Election** database.

a. Find the smallest number of voters, the largest number of voters and the average number of voters in constituencies.

b. Find the largest difference between votes cast for two candidates in the same constituency.

c. Find the average vote received by the Labour party ('lab') in constituencies where a Liberal candidate ('lib') was also standing.

d. Display the constituency name and the total votes cast of constituencies where no more than three parties had candidates.

e. Find the names of constituencies having at least 5000 voters more than the average number.

f. Find the maximum vote received by the Labour party in constituencies where more than 50000 votes were cast in total.

g. Find the constituency name and number of voters for the constituencies with the three smallest numbers of voters. List the three constituencies in increasing size of number of voters.