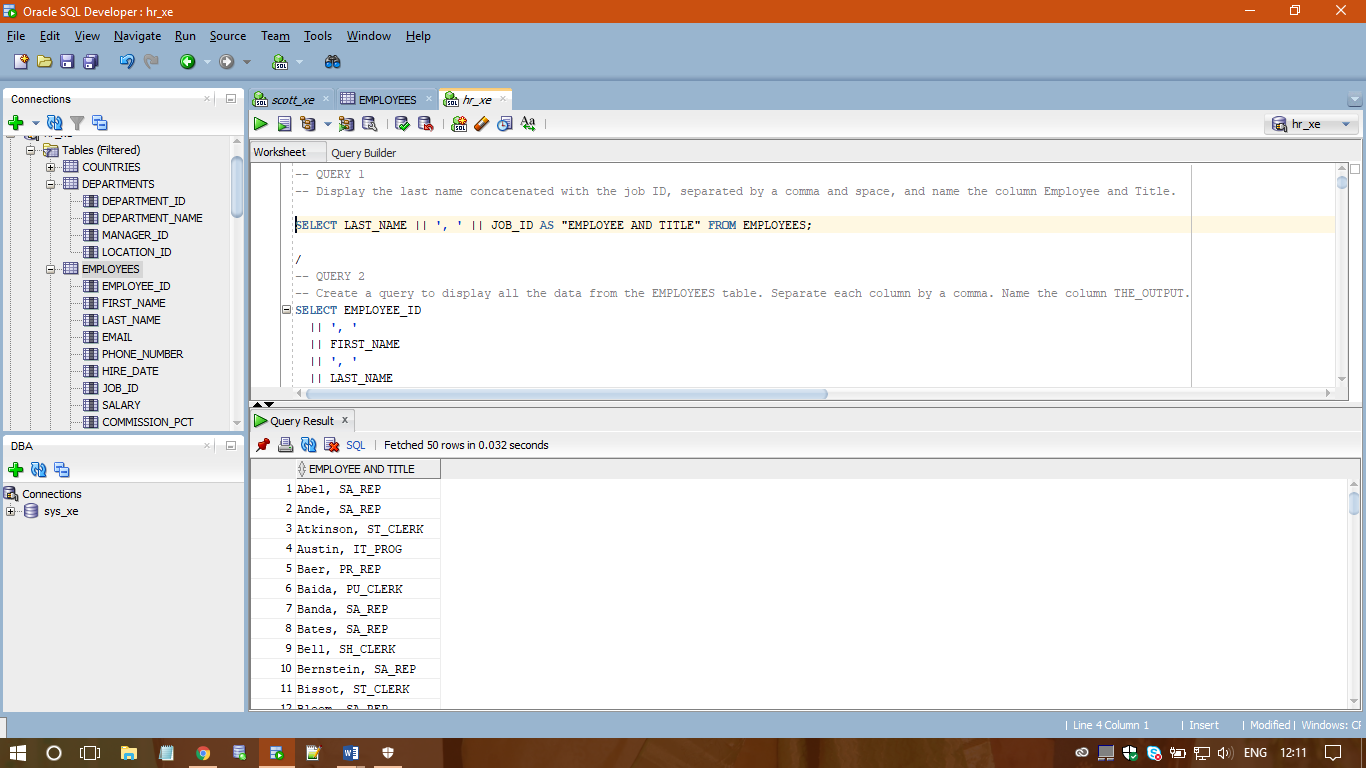
**-- QUERY 1**

**-- Display the last name concatenated with the job ID, separated by a comma and space, and name the column Employee and Title.**

SELECT LAST\_NAME || ', ' || JOB\_ID AS "EMPLOYEE AND TITLE" FROM EMPLOYEES;

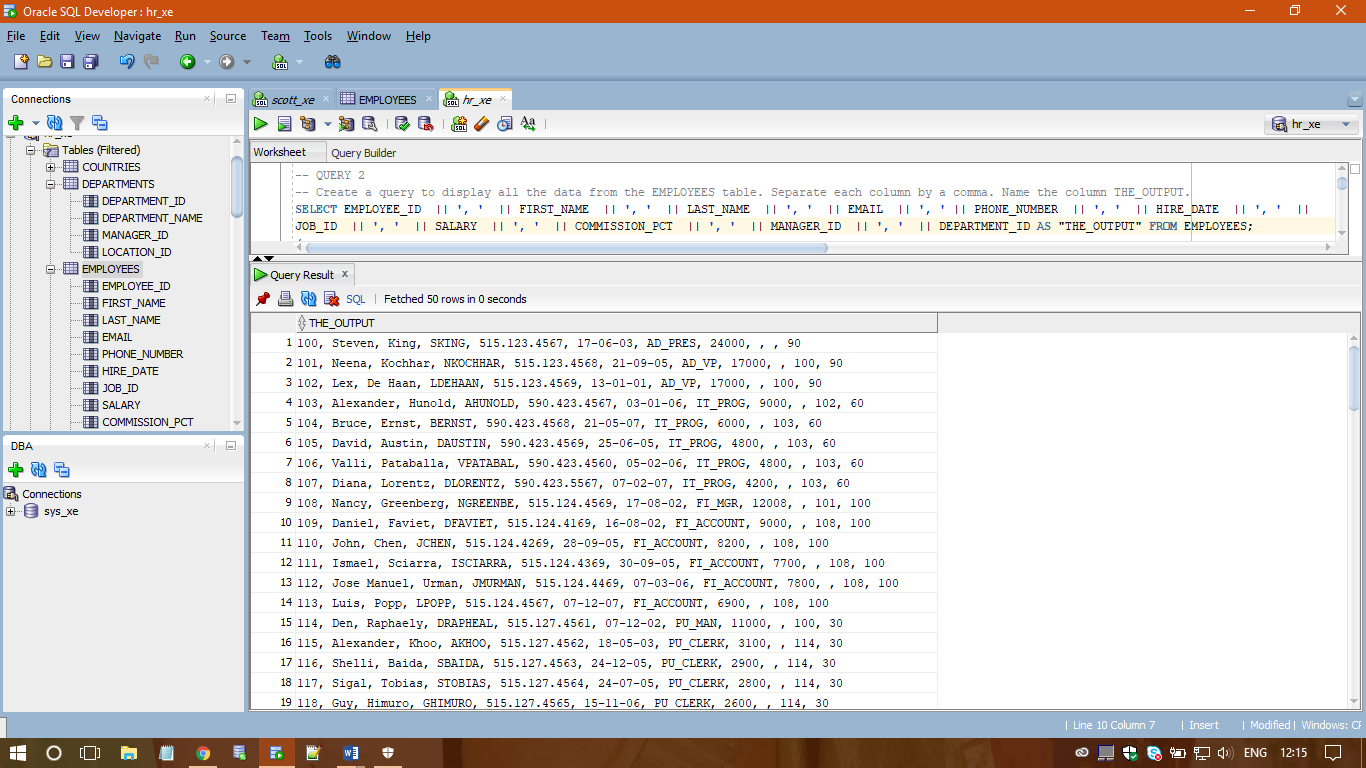


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**-- QUERY 2**

**-- Create a query to display all the data from the EMPLOYEES table. Separate each column by a comma. Name the column THE\_OUTPUT.**

SELECT EMPLOYEE\_ID || ', ' || FIRST\_NAME || ', ' || LAST\_NAME || ', ' || EMAIL || ', ' || PHONE\_NUMBER || ', ‘ || HIRE\_DATE || ', ' || JOB\_ID || ', ' || SALARY || ', ' || COMMISSION\_PCT || ', ' || MANAGER\_ID || ', ' || DEPARTMENT\_ID AS "THE\_OUTPUT" FROM EMPLOYEES;

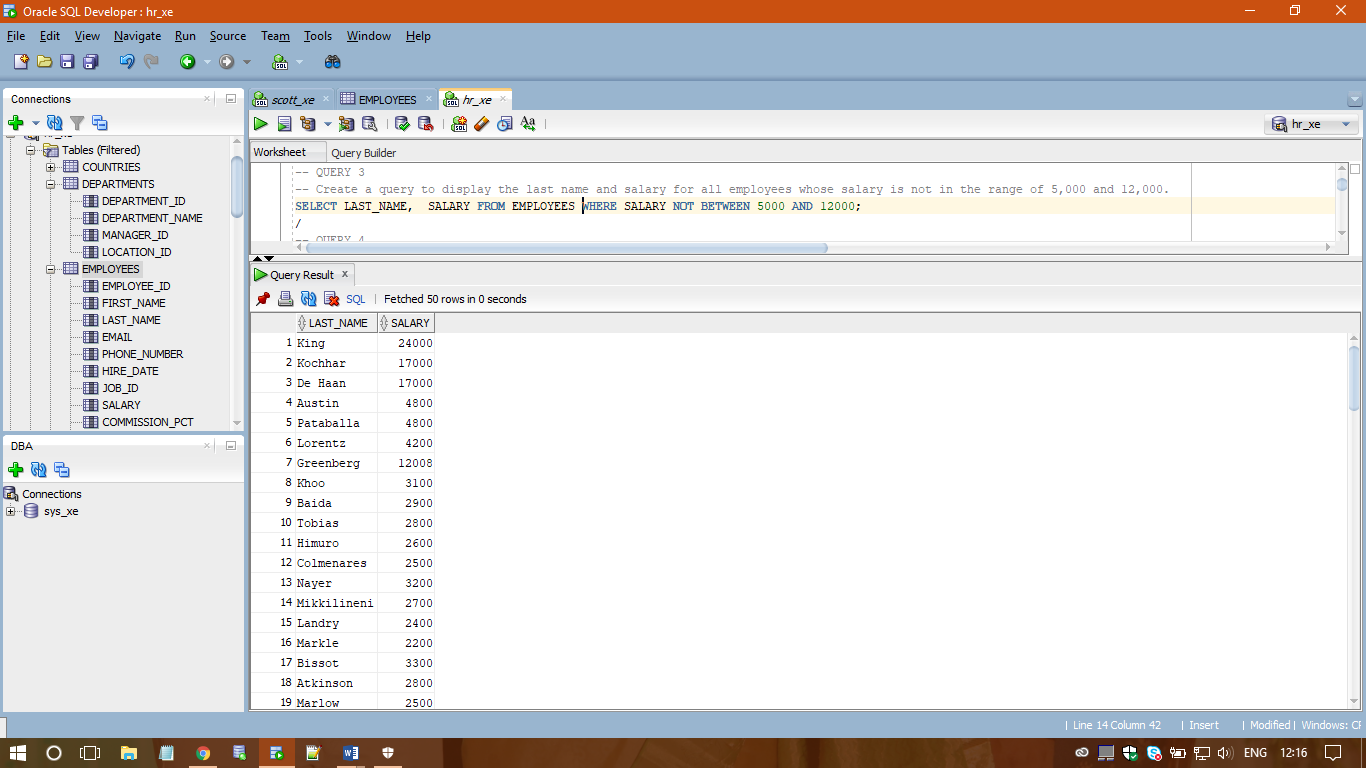


/

**-- QUERY 3**

**-- Create a query to display the last name and salary for all employees whose salary is not in the range of 5,000 and 12,000.**

SELECT LAST\_NAME, SALARY FROM EMPLOYEES WHERE SALARY NOT BETWEEN 5000 AND 12000;

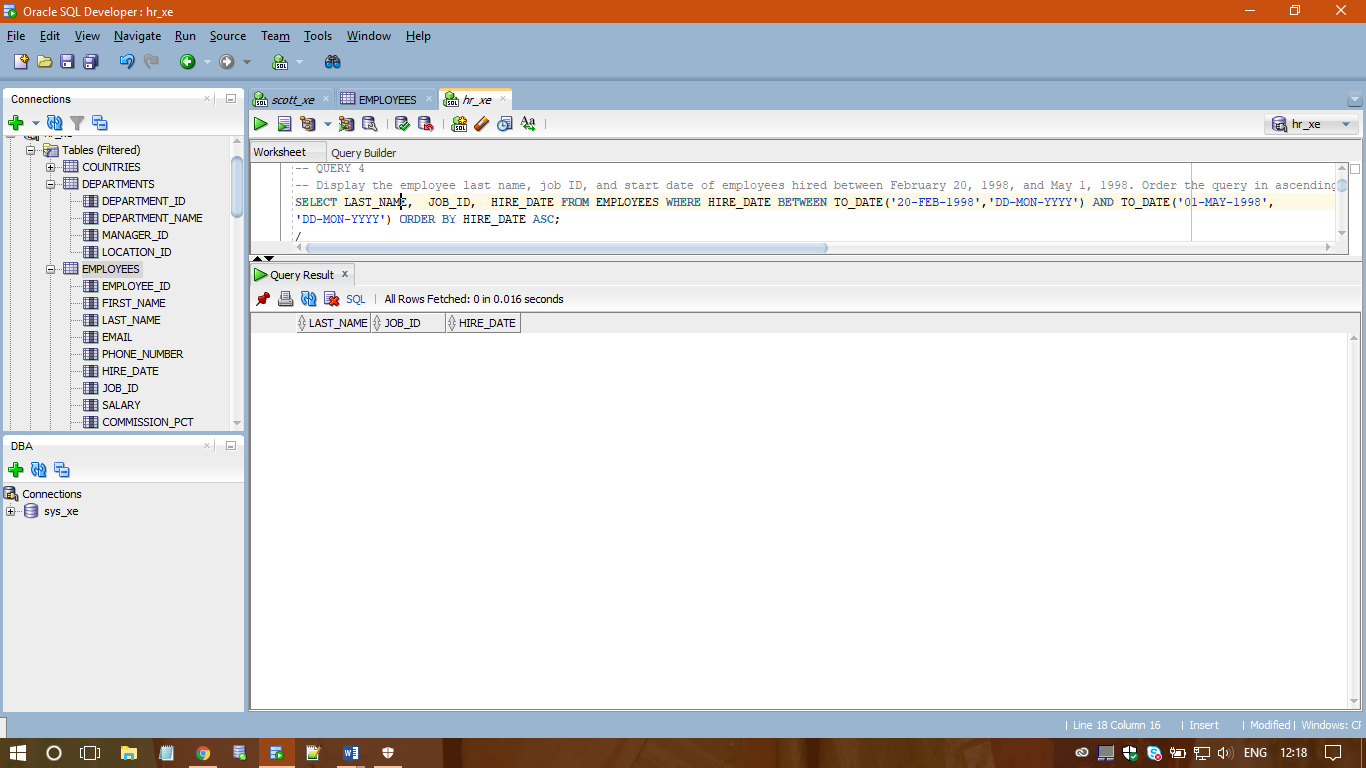


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**-- QUERY 4**

**-- Display the employee last name, job ID, and start date of employees hired between February 20, 1998, and May 1, 1998. Order the query in ascending order by start date.**

SELECT LAST\_NAME, JOB\_ID, HIRE\_DATE FROM EMPLOYEES WHERE HIRE\_DATE BETWEEN TO\_DATE('20-FEB-1998','DD-MON-YYYY') AND TO\_DATE('01-MAY-1998','DD-MON-YYYY') ORDER BY HIRE\_DATE ASC;

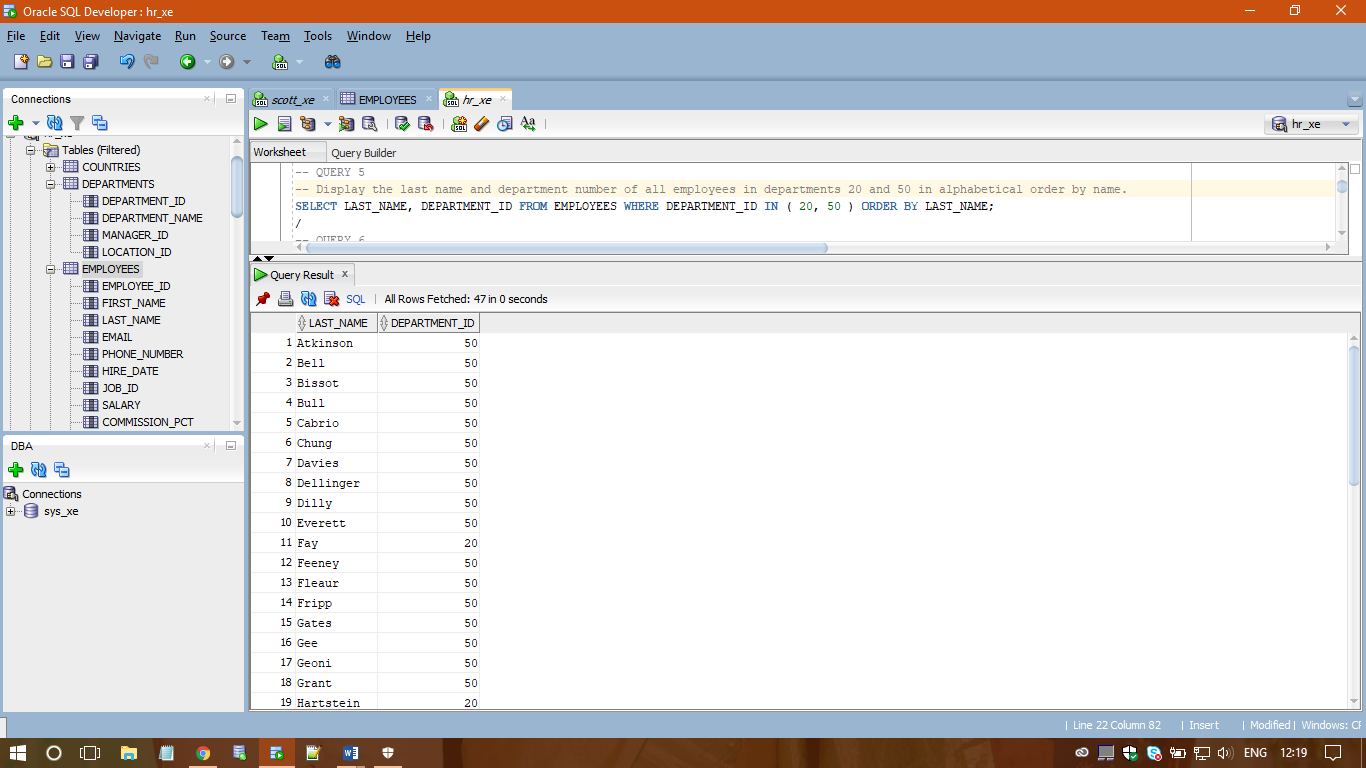


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**-- QUERY 5**

**-- Display the last name and department number of all employees in departments 20 and 50 in alphabetical order by name.**

SELECT LAST\_NAME, DEPARTMENT\_ID FROM EMPLOYEES WHERE DEPARTMENT\_ID IN ( 20, 50 ) ORDER BY LAST\_NAME;

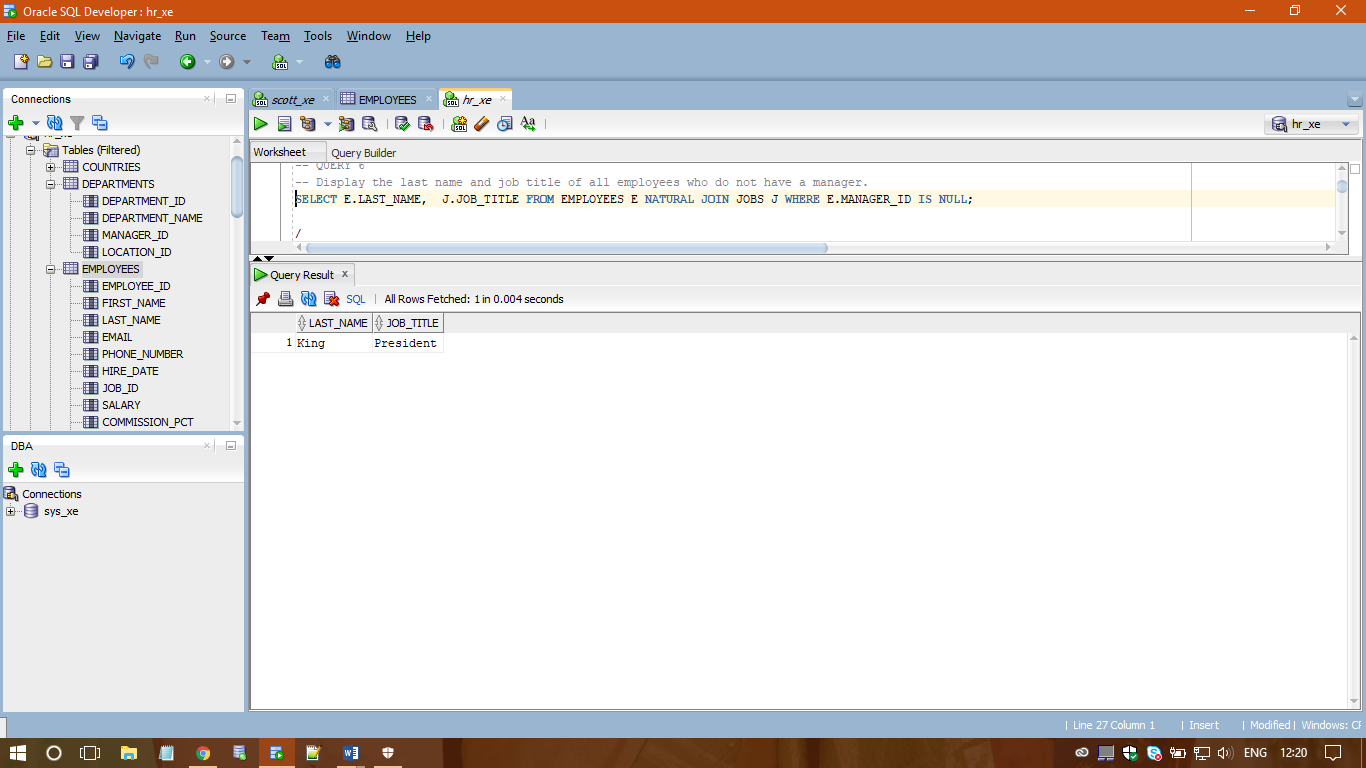


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**-- QUERY 6**

**-- Display the last name and job title of all employees who do not have a manager.**

SELECT E.LAST\_NAME, J.JOB\_TITLE FROM EMPLOYEES E NATURAL JOIN JOBS J WHERE E.MANAGER\_ID IS NULL;

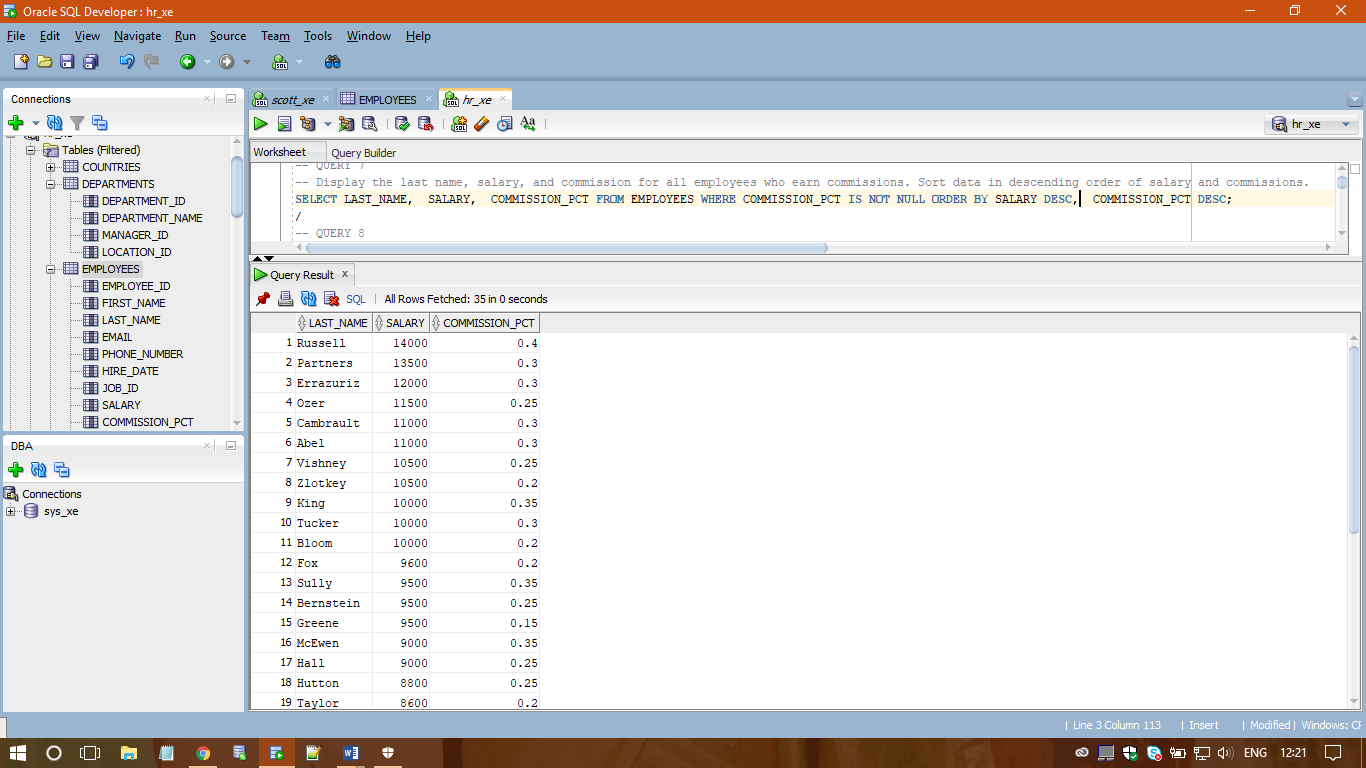


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**-- QUERY 7**

**-- Display the last name, salary, and commission for all employees who earn commissions. Sort data in descending order of salary and commissions.**

SELECT LAST\_NAME, SALARY, COMMISSION\_PCT FROM EMPLOYEES WHERE COMMISSION\_PCT IS NOT NULL ORDER BY SALARY DESC, COMMISSION\_PCT DESC;

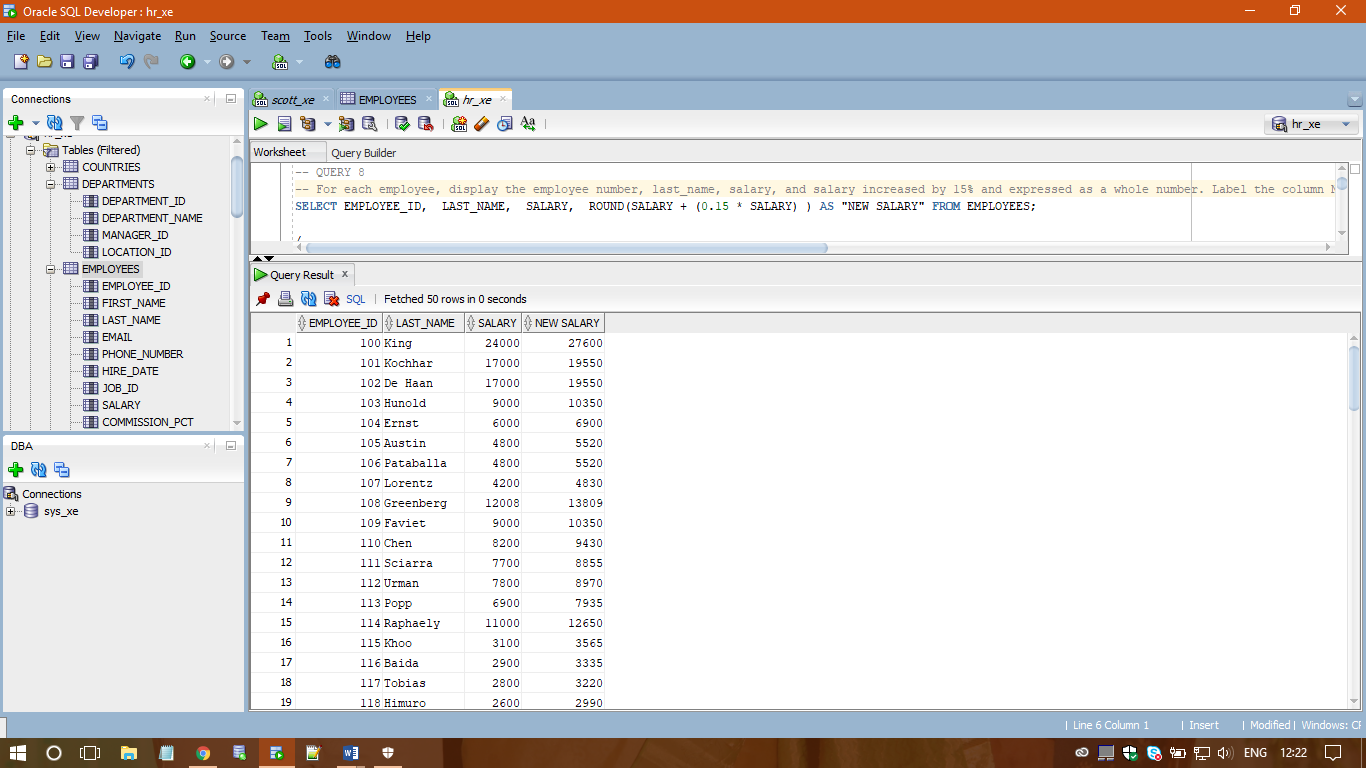


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**-- QUERY 8**

**-- For each employee, display the employee number, last\_name, salary, and salary increased by 15% and expressed as a whole number. Label the column New Salary.**

SELECT EMPLOYEE\_ID, LAST\_NAME, SALARY, ROUND(SALARY + (0.15 \* SALARY) ) AS "NEW SALARY" FROM EMPLOYEES;

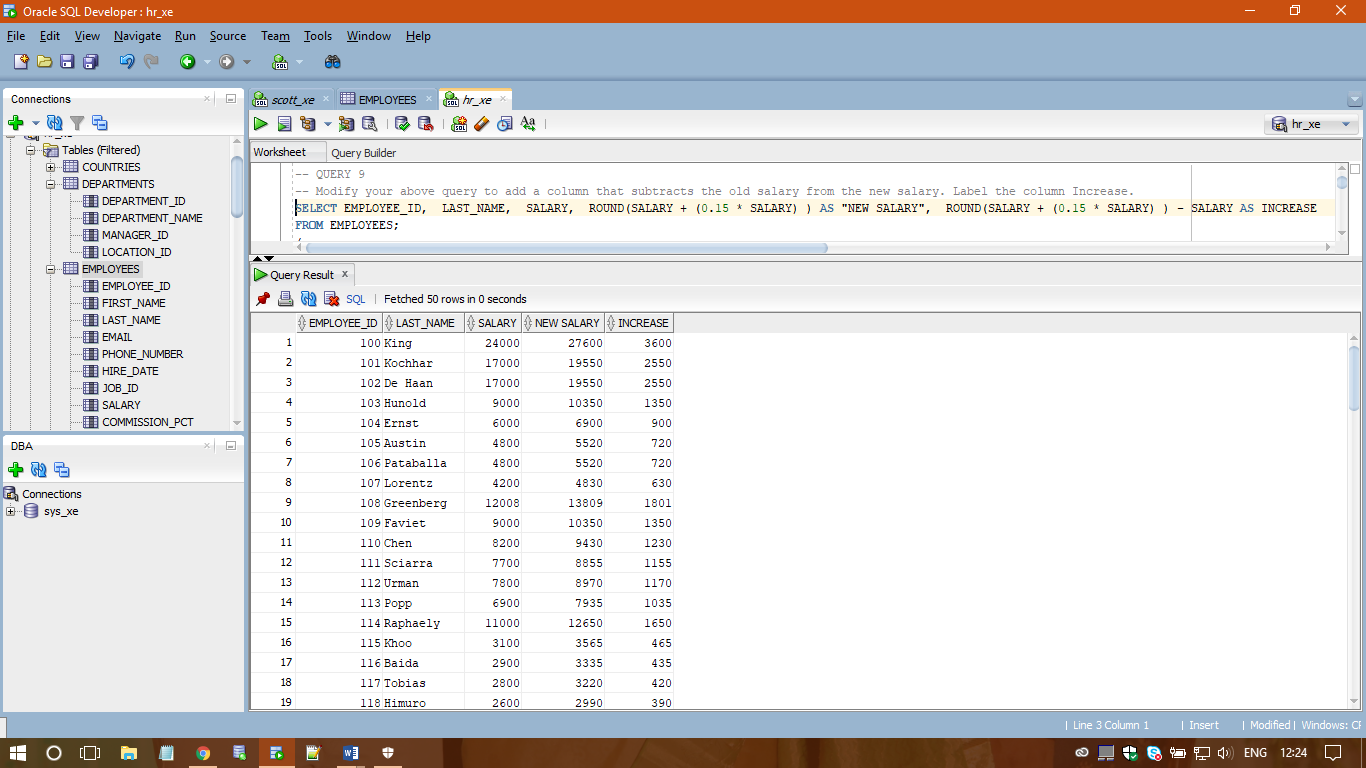


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**-- QUERY 9**

**-- Modify your above query to add a column that subtracts the old salary from the new salary. Label the column Increase.**

SELECT EMPLOYEE\_ID, LAST\_NAME, SALARY, ROUND(SALARY + (0.15 \* SALARY) ) AS "NEW SALARY", ROUND(SALARY + (0.15 \* SALARY) ) - SALARY AS INCREASE FROM EMPLOYEES;



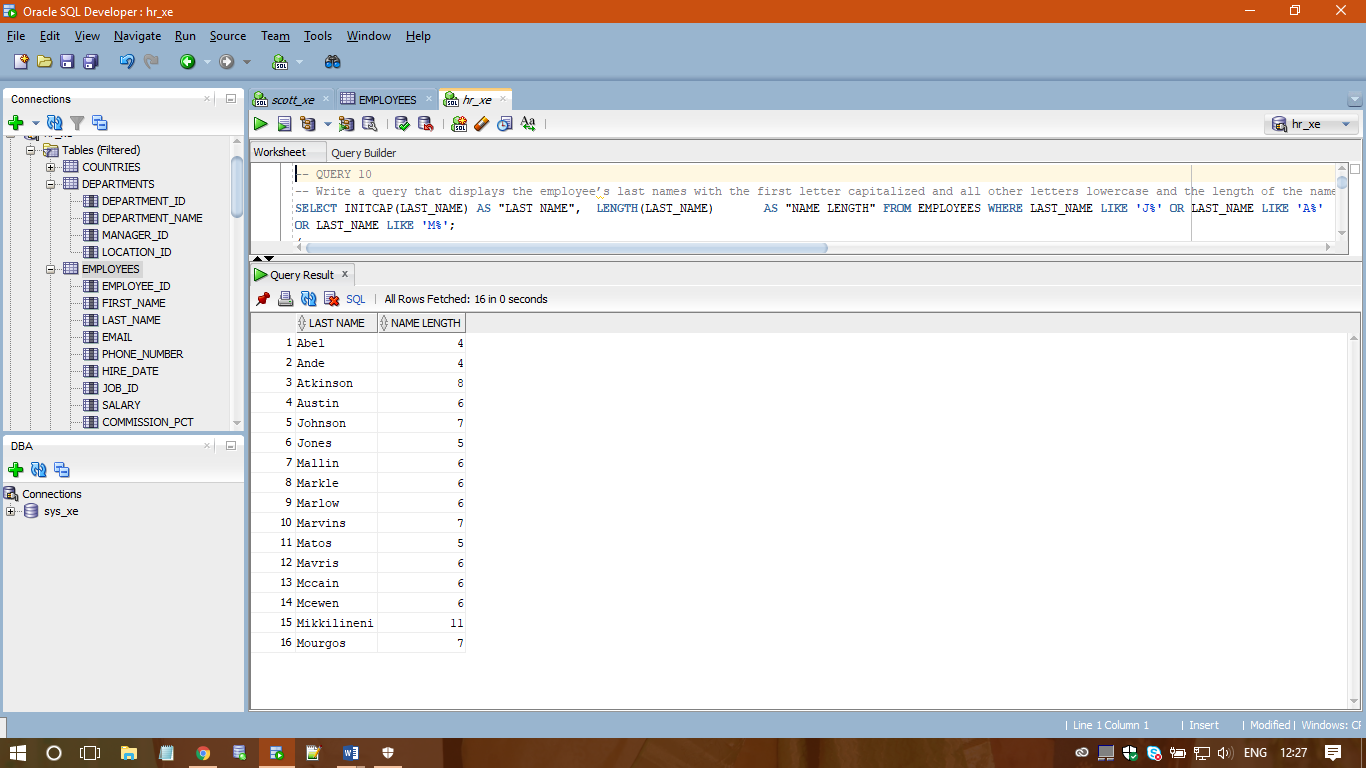
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**-- QUERY 10**

**-- Write a query that displays the employee’s last names with the first letter capitalized and all other letters lowercase and the length of the name for all employees whose name starts with J, A, or M. Give each column an appropriate label. Sort the results by the employees’ last names.**

SELECT INITCAP(LAST\_NAME) AS "LAST NAME", LENGTH(LAST\_NAME) AS "NAME LENGTH" FROM EMPLOYEES

WHERE LAST\_NAME LIKE 'J%' OR LAST\_NAME LIKE 'A%' OR LAST\_NAME LIKE 'M%';



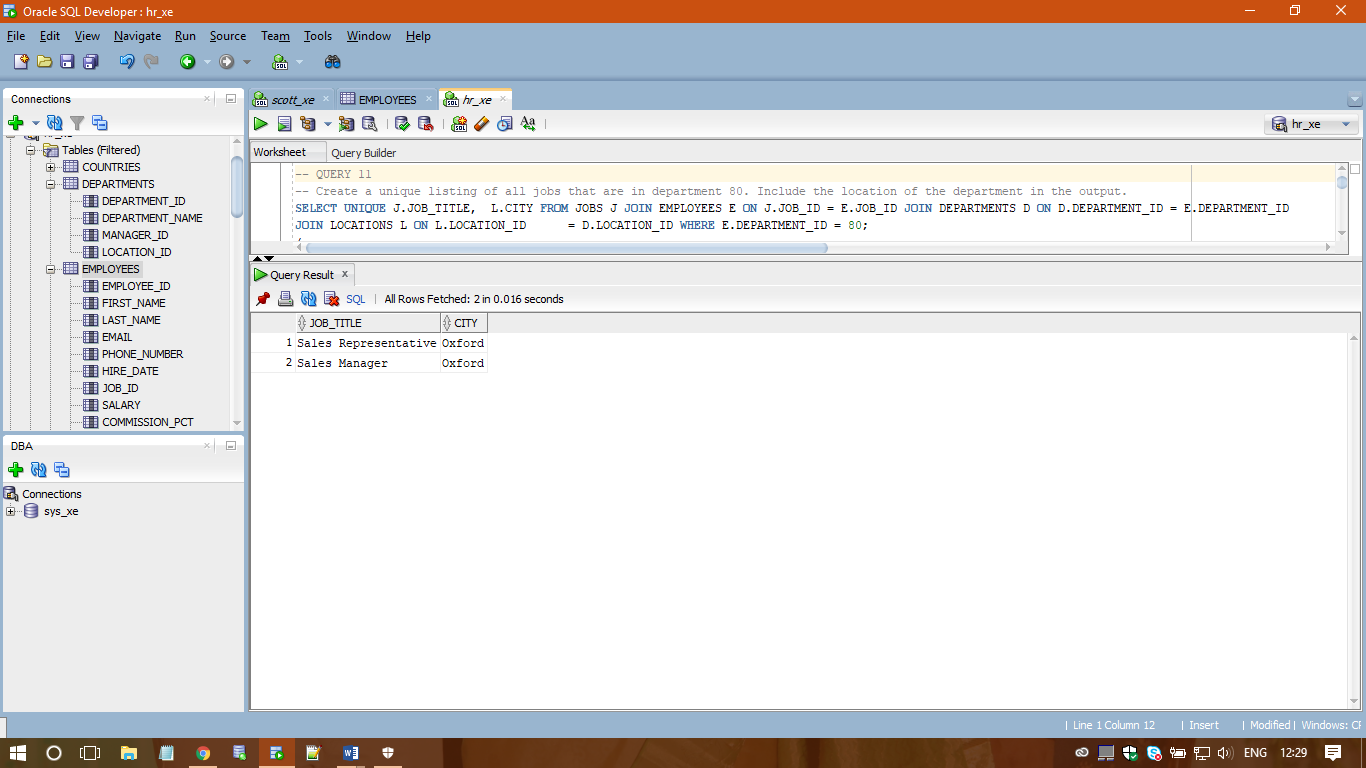
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**-- QUERY 11**

**-- Create a unique listing of all jobs that are in department 80. Include the location of the department in the output.**

SELECT UNIQUE J.JOB\_TITLE, L.CITY FROM JOBS J JOIN EMPLOYEES E ON J.JOB\_ID = E.JOB\_ID JOIN DEPARTMENTS D

ON D.DEPARTMENT\_ID = E.DEPARTMENT\_ID JOIN LOCATIONS L ON L.LOCATION\_ID = D.LOCATION\_ID WHERE E.DEPARTMENT\_ID = 80;

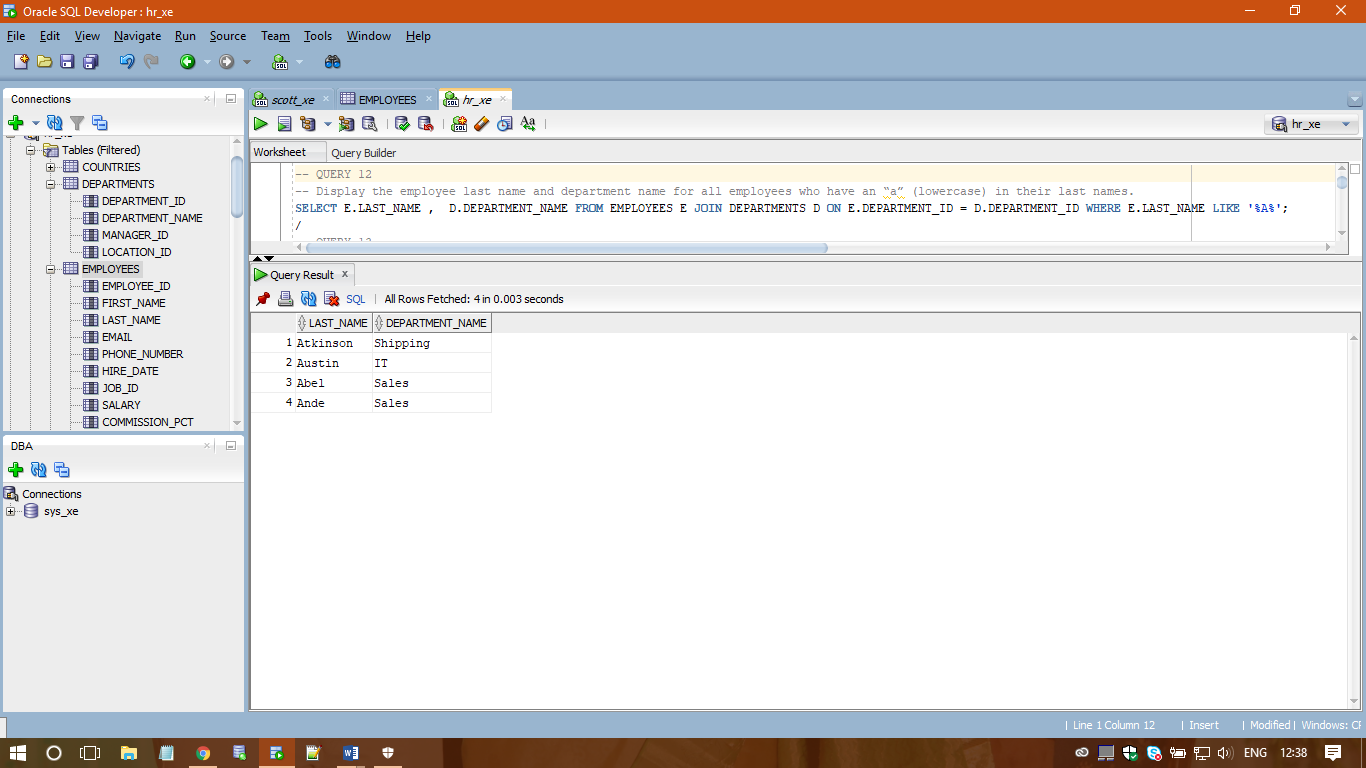


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**-- QUERY 12**

**-- Display the employee last name and department name for all employees who have an “a” (lowercase) in their last names.**

SELECT E.LAST\_NAME , D.DEPARTMENT\_NAME FROM EMPLOYEES E JOIN DEPARTMENTS D ON E.DEPARTMENT\_ID = D.DEPARTMENT\_ID WHERE E.LAST\_NAME LIKE '%A%';



/

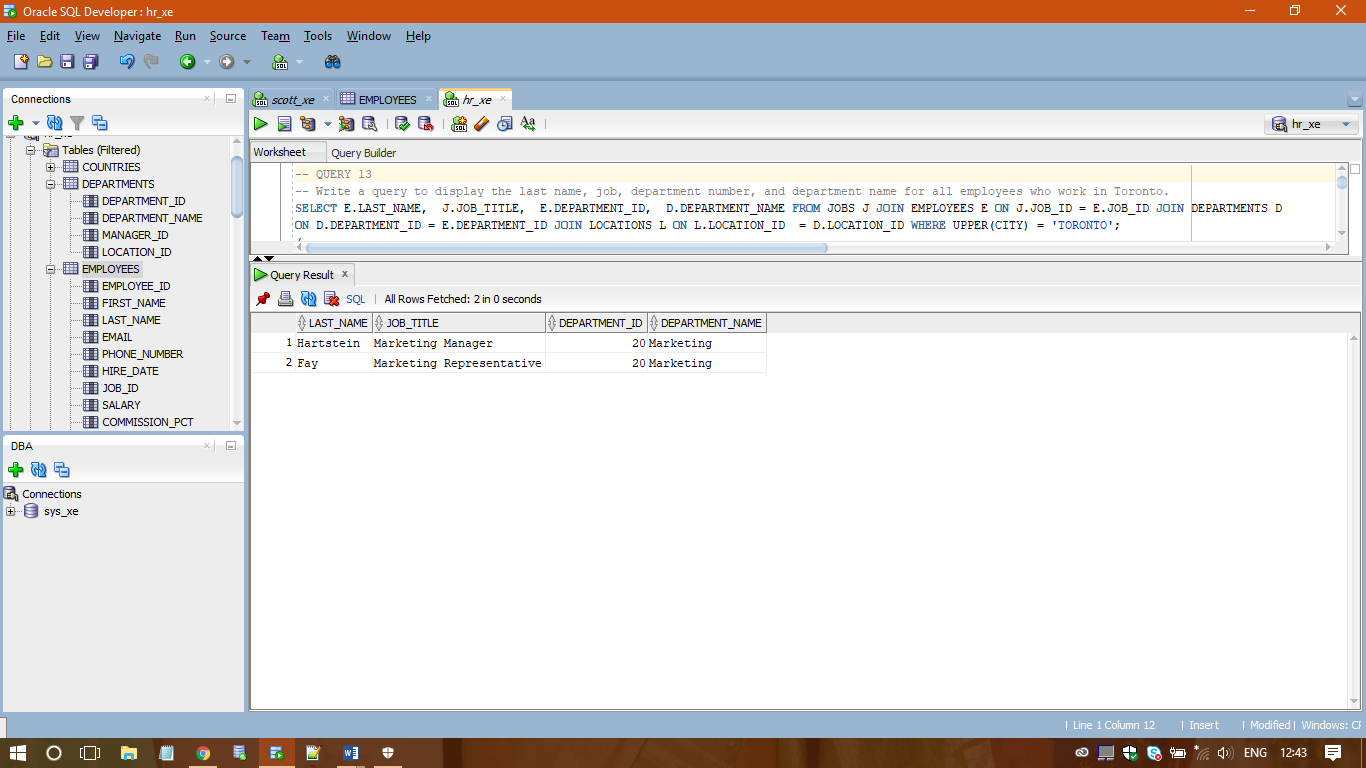
**-- QUERY 13**

**-- Write a query to display the last name, job, department number, and department name for all employees who work in Toronto.**

SELECT E.LAST\_NAME, J.JOB\_TITLE, E.DEPARTMENT\_ID, D.DEPARTMENT\_NAME FROM JOBS J JOIN EMPLOYEES E

ON J.JOB\_ID = E.JOB\_ID JOIN DEPARTMENTS D ON D.DEPARTMENT\_ID = E.DEPARTMENT\_ID JOIN LOCATIONS L

ON L.LOCATION\_ID = D.LOCATION\_ID WHERE UPPER(CITY) = 'TORONTO';

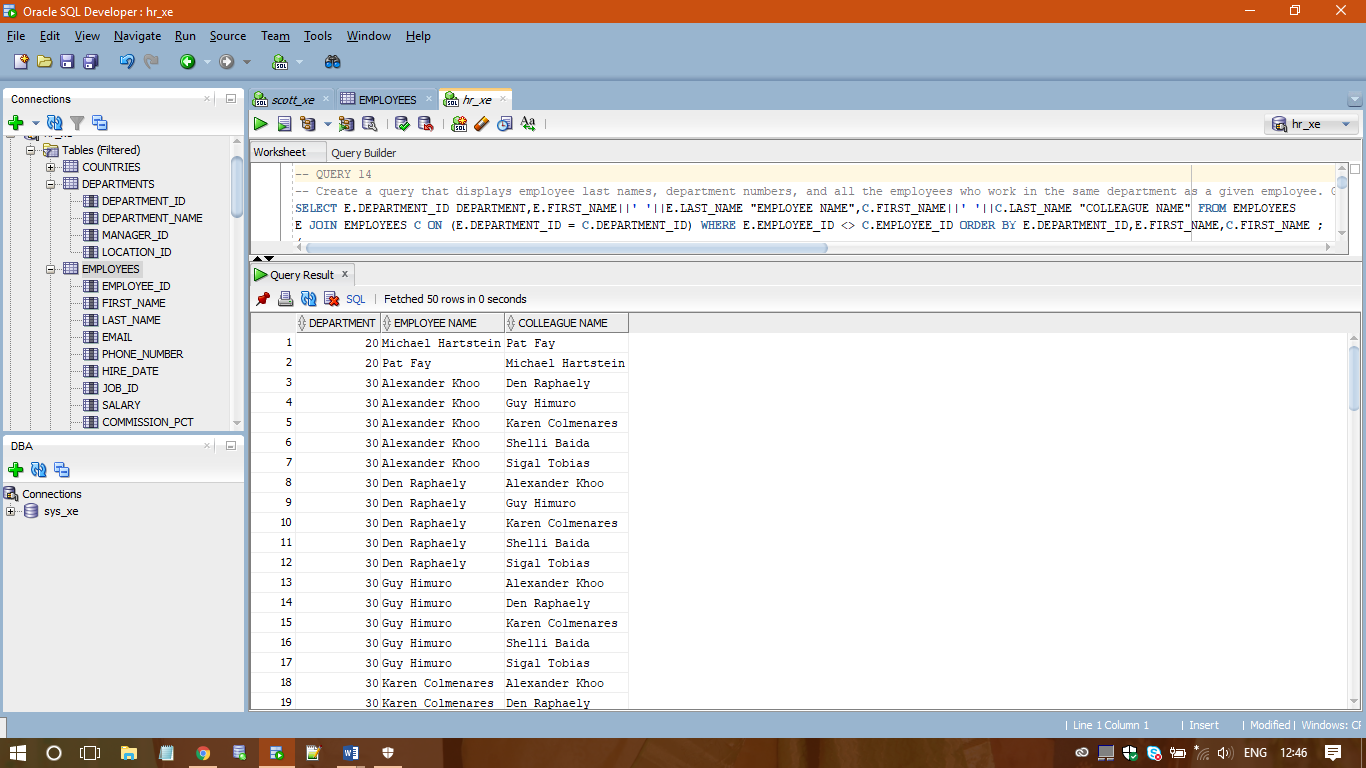


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**-- QUERY 14**

**-- Create a query that displays employee last names, department numbers, and all the employees who work in the same department as a given employee. Give each column an appropriate label.**

SELECT E.DEPARTMENT\_ID DEPARTMENT, E.FIRST\_NAME ||' ' ||E.LAST\_NAME "EMPLOYEE NAME", C.FIRST\_NAME ||' ' ||C.LAST\_NAME "COLLEAGUE NAME" FROM EMPLOYEES E JOIN EMPLOYEES C ON (E.DEPARTMENT\_ID = C.DEPARTMENT\_ID) WHERE E.EMPLOYEE\_ID <> C.EMPLOYEE\_ID ORDER BY E.DEPARTMENT\_ID, E.FIRST\_NAME, C.FIRST\_NAME ;



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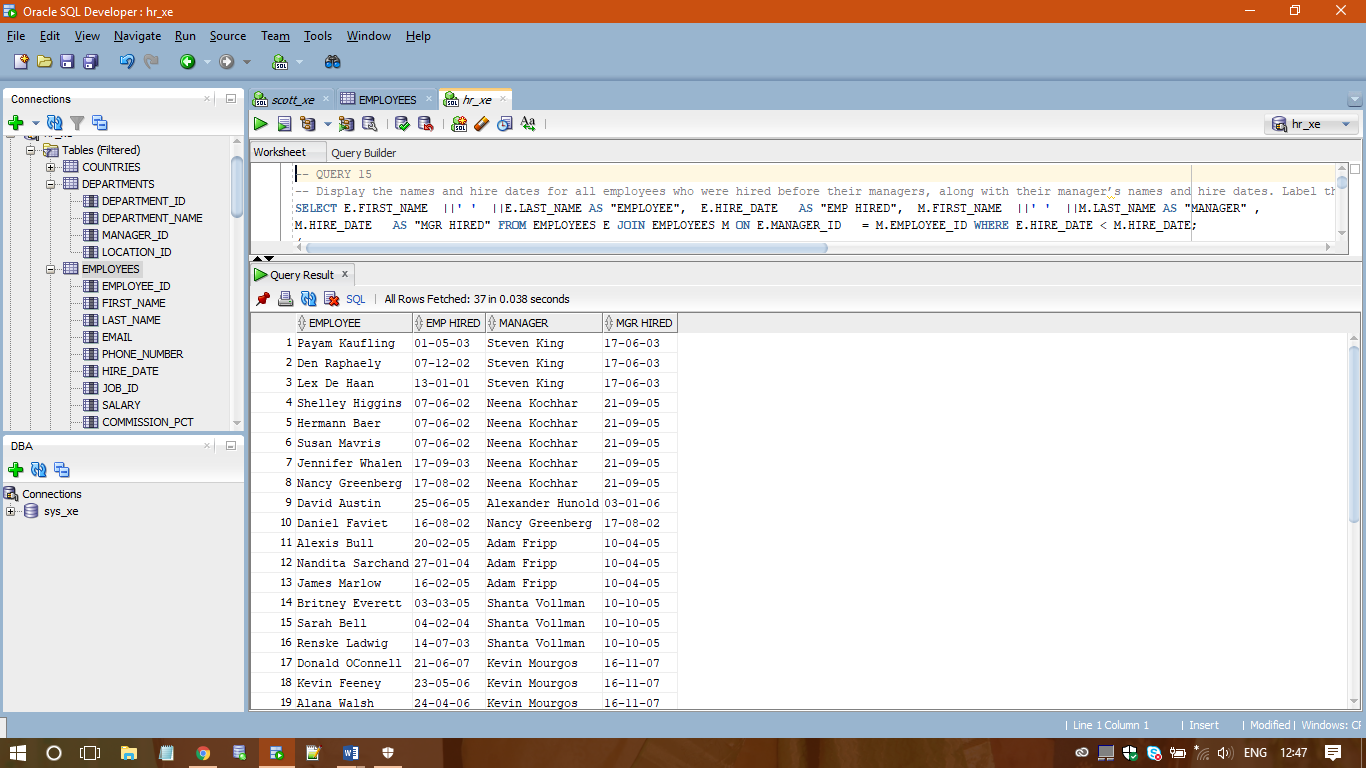
**-- QUERY 15**

**-- Display the names and hire dates for all employees who were hired before their managers, along with their manager’s names and hire dates. Label the columns Employee, Emp Hired, Manager, and Mgr Hired, respectively.**

SELECT E.FIRST\_NAME ||' ' ||E.LAST\_NAME AS "EMPLOYEE", E.HIRE\_DATE AS "EMP HIRED", M.FIRST\_NAME ||' '

||M.LAST\_NAME AS "MANAGER" , M.HIRE\_DATE AS "MGR HIRED" FROM EMPLOYEES E JOIN EMPLOYEES M

ON E.MANAGER\_ID = M.EMPLOYEE\_ID WHERE E.HIRE\_DATE < M.HIRE\_DATE;

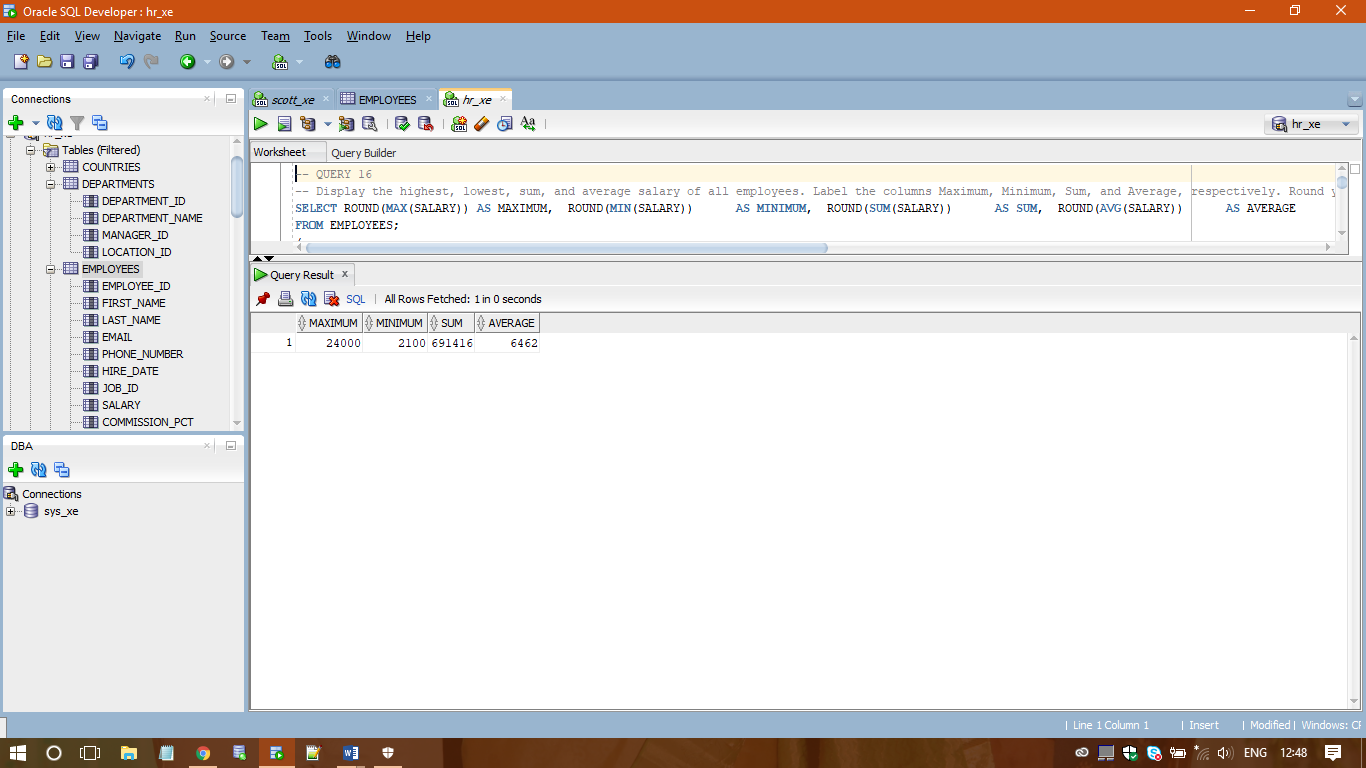


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**-- QUERY 16**

**-- Display the highest, lowest, sum, and average salary of all employees. Label the columns Maximum, Minimum, Sum, and Average, respectively. Round your results to the nearest whole number**

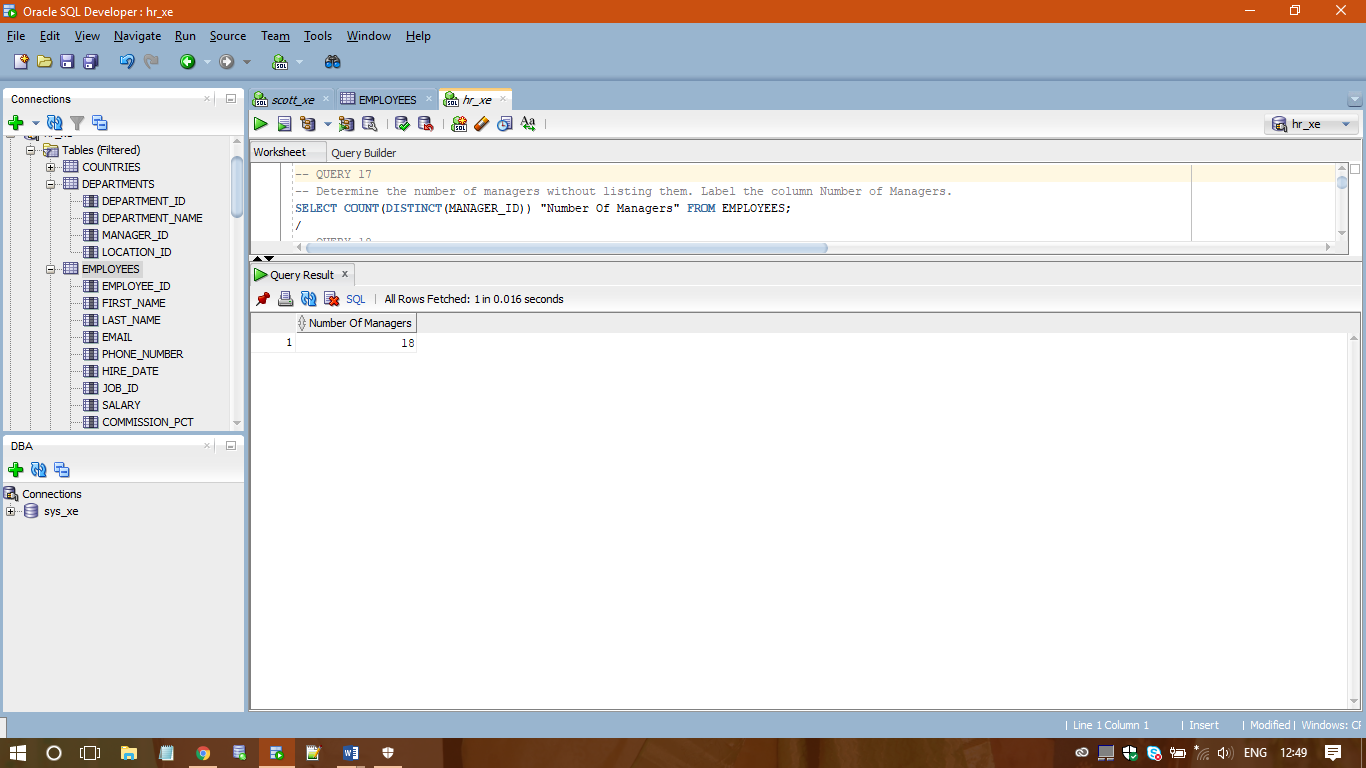
SELECT ROUND(MAX(SALARY)) AS MAXIMUM, ROUND(MIN(SALARY)) AS MINIMUM, ROUND(SUM(SALARY)) AS SUM, ROUND(AVG(SALARY)) AS AVERAGE FROM EMPLOYEES;



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**-- QUERY 17**

**-- Determine the number of managers without listing them. Label the column Number of Managers.**

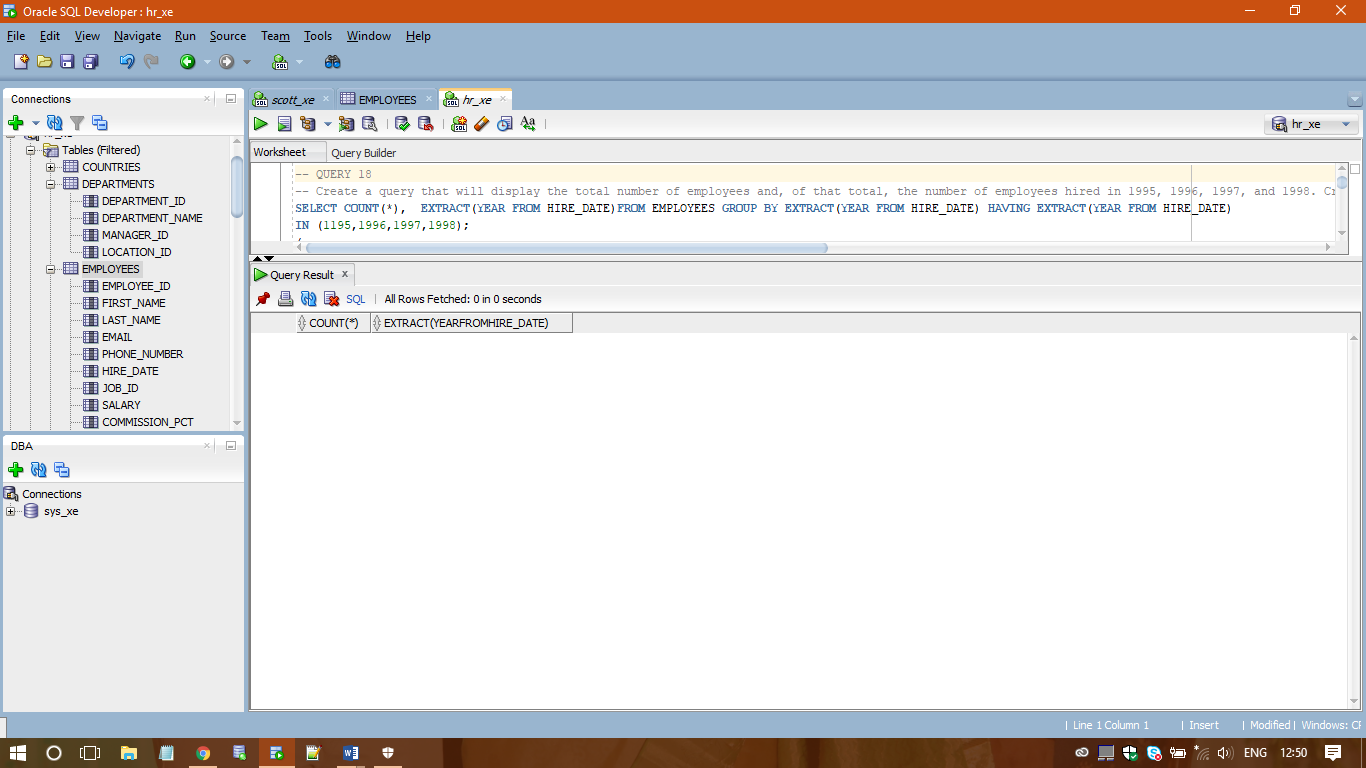
SELECT COUNT(DISTINCT(MANAGER\_ID)) "Number Of Managers" FROM EMPLOYEES;

/

**-- QUERY 18**

**-- Create a query that will display the total number of employees and, of that total, the number of employees hired in 1995, 1996, 1997, and 1998. Create appropriate column headings.**

SELECT COUNT(\*), EXTRACT(YEAR FROM HIRE\_DATE) FROM EMPLOYEES GROUP BY EXTRACT(YEAR FROM HIRE\_DATE) HAVING EXTRACT(YEAR FROM HIRE\_DATE) IN (1195,1996,1997,1998);

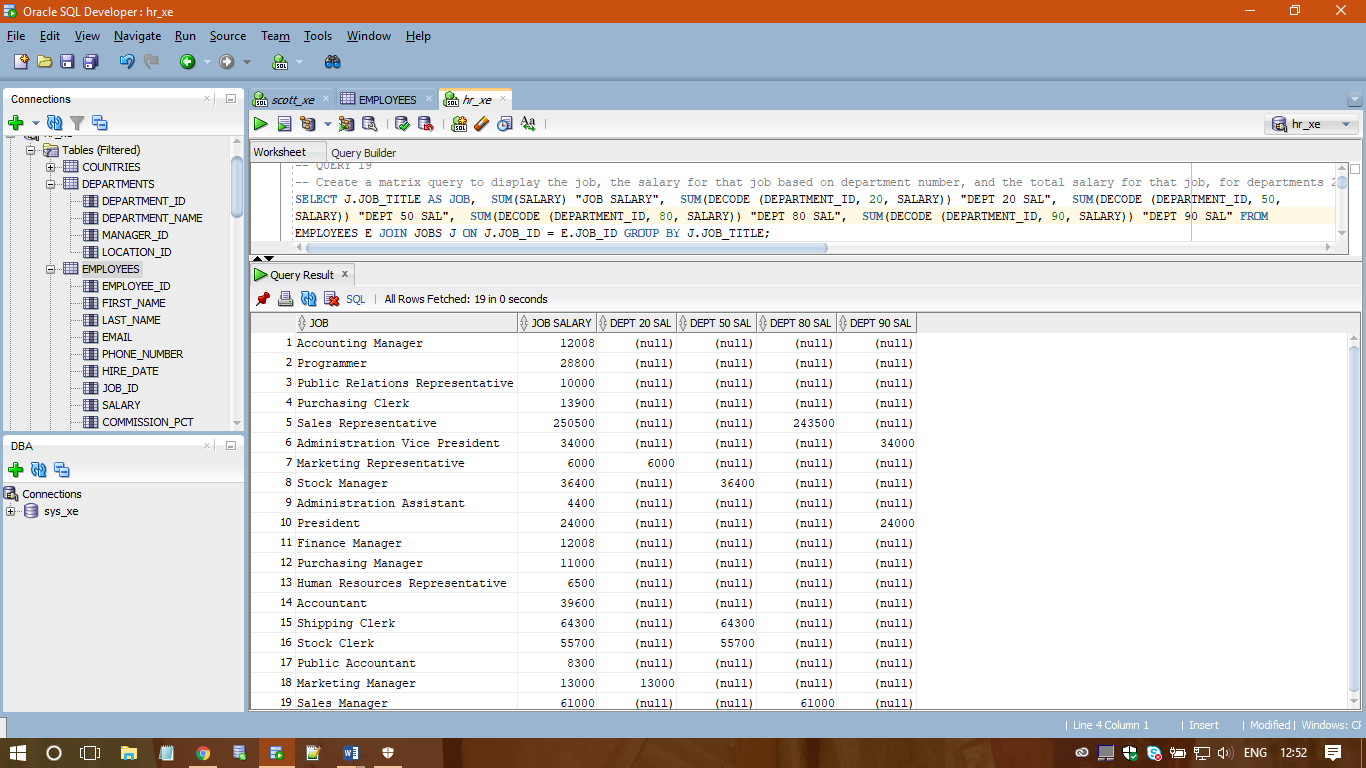


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**-- QUERY 19**

**-- Create a matrix query to display the job, the salary for that job based on department number, and the total salary for that job, for departments 20, 50, 80, and 90, giving each column an appropriate heading.**

SELECT J.JOB\_TITLE AS JOB, SUM(SALARY) "JOB SALARY", SUM(DECODE (DEPARTMENT\_ID, 20, SALARY)) "DEPT 20 SAL", SUM(DECODE (DEPARTMENT\_ID, 50, SALARY)) "DEPT 50 SAL", SUM(DECODE (DEPARTMENT\_ID, 80, SALARY)) "DEPT 80 SAL", SUM(DECODE (DEPARTMENT\_ID, 90, SALARY)) "DEPT 90 SAL" FROM EMPLOYEES E JOIN JOBS J ON J.JOB\_ID = E.JOB\_ID GROUP BY J.JOB\_TITLE;

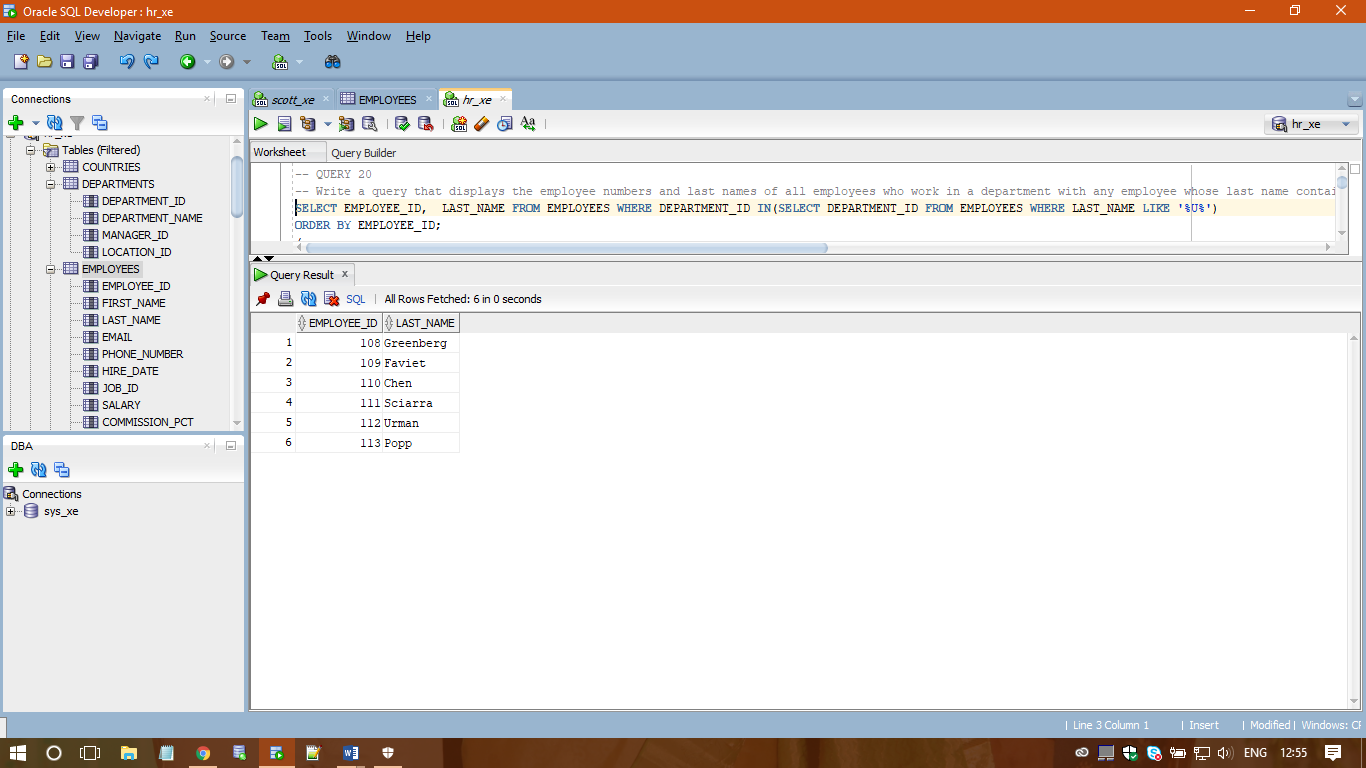


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**-- QUERY 20**

**-- Write a query that displays the employee numbers and last names of all employees who work in a department with any employee whose last name contains a “u”.**

SELECT EMPLOYEE\_ID, LAST\_NAME FROM EMPLOYEES WHERE DEPARTMENT\_ID IN (SELECT DEPARTMENT\_ID FROM EMPLOYEES WHERE LAST\_NAME LIKE '%U%' ) ORDER BY EMPLOYEE\_ID;



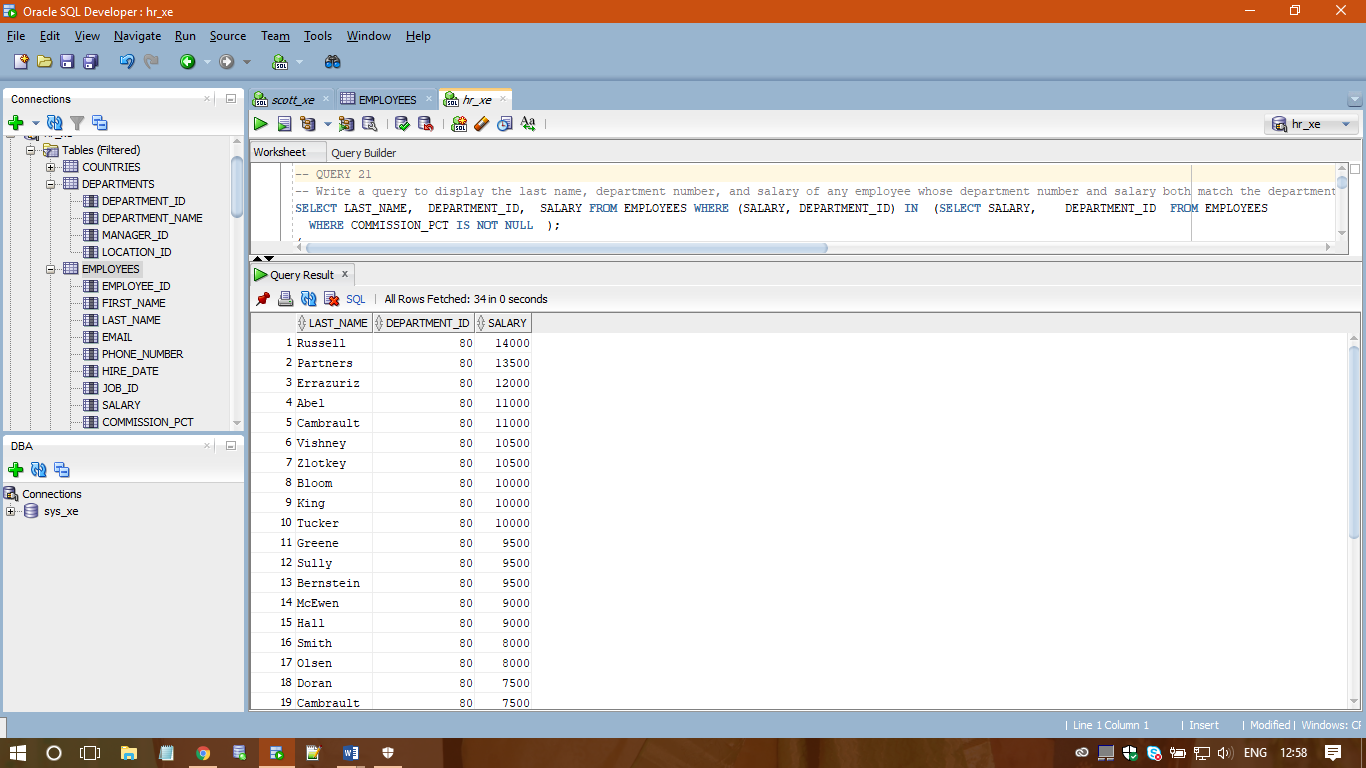
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**-- QUERY 21**

**-- Write a query to display the last name, department number, and salary of any employee whose department number and salary both match the department number and salary of any employee who earns a commission.**

SELECT LAST\_NAME, DEPARTMENT\_ID, SALARY FROM EMPLOYEES WHERE (SALARY, DEPARTMENT\_ID) IN

(SELECT SALARY, DEPARTMENT\_ID FROM EMPLOYEES WHERE COMMISSION\_PCT IS NOT NULL);

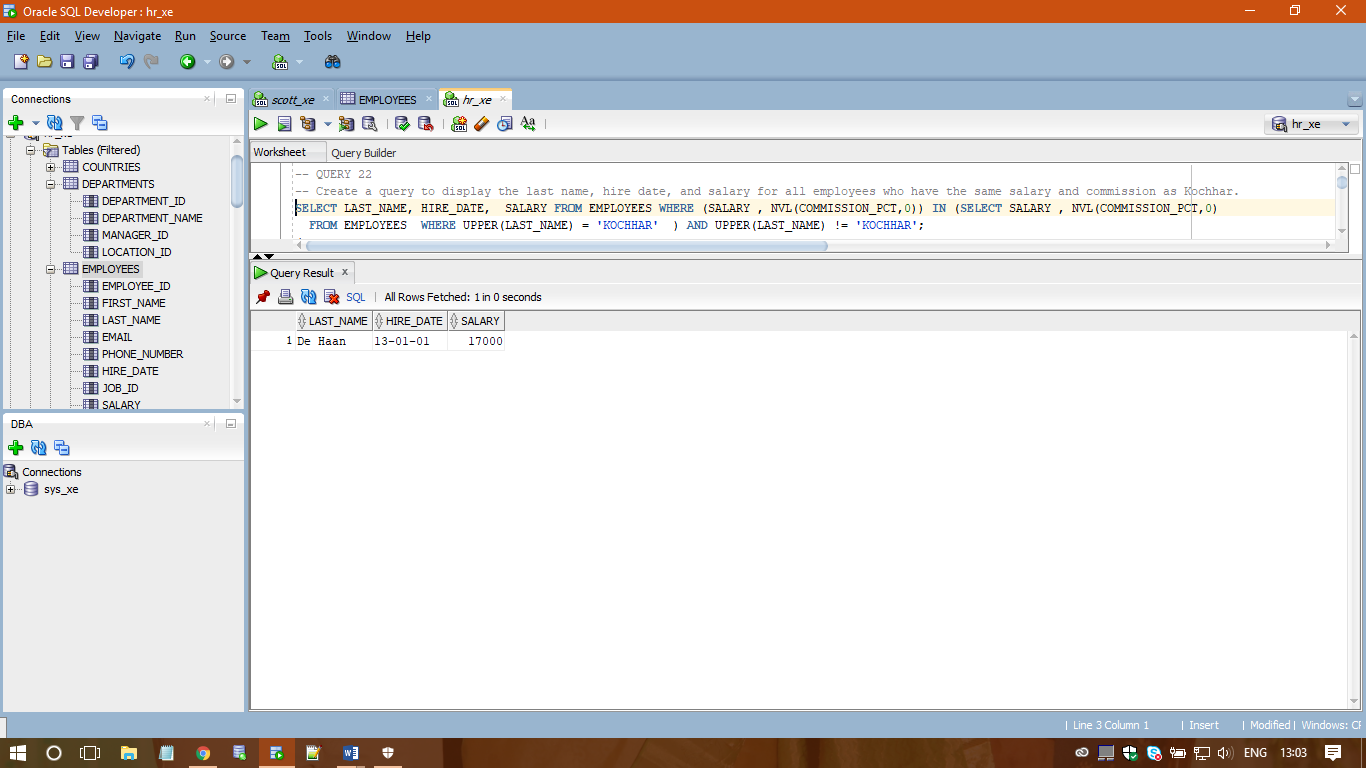


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**-- QUERY 22**

**-- Create a query to display the last name, hire date, and salary for all employees who have the same salary and commission as Kochhar.**

SELECT LAST\_NAME, HIRE\_DATE, SALARY FROM EMPLOYEES WHERE (SALARY , NVL(COMMISSION\_PCT,0)) IN (SELECT SALARY , NVL(COMMISSION\_PCT,0) FROM EMPLOYEES WHERE UPPER(LAST\_NAME) = 'KOCHHAR' ) AND UPPER(LAST\_NAME) != 'KOCHHAR';

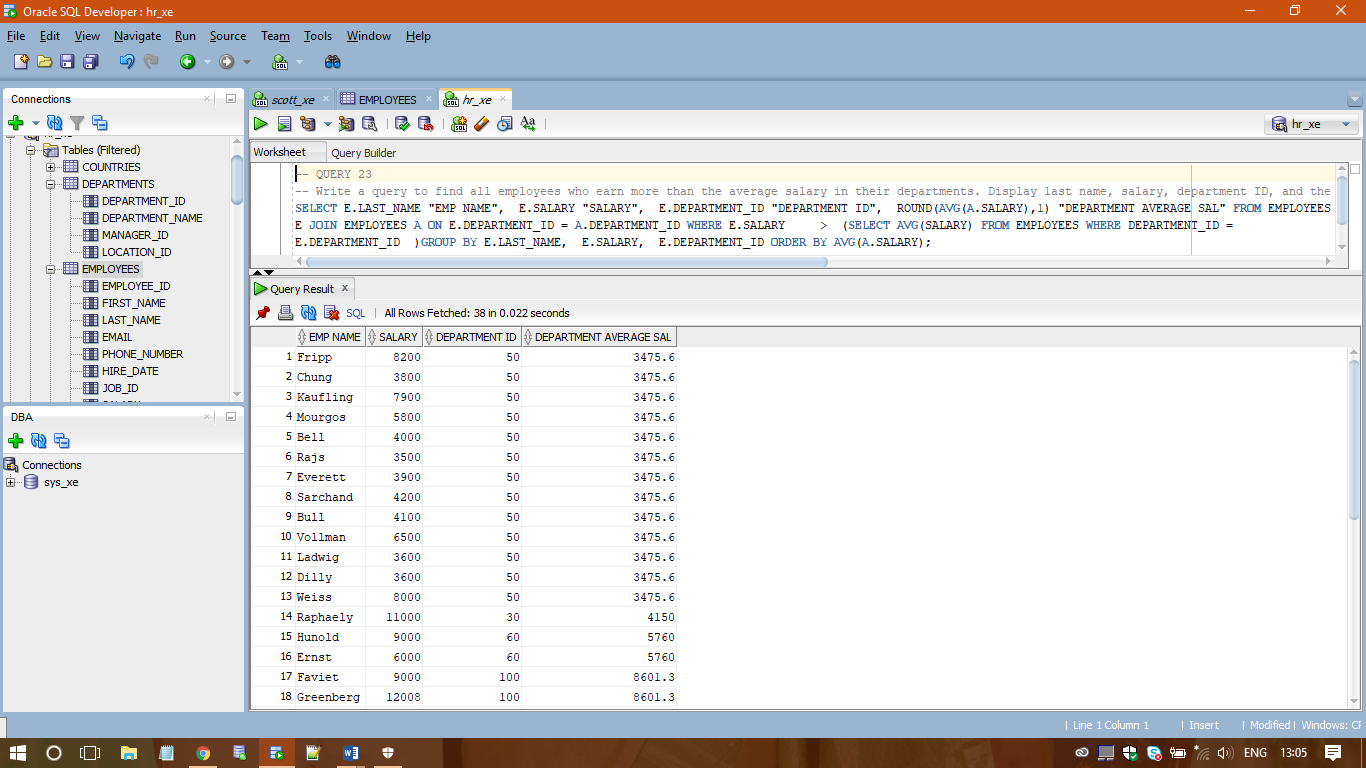


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**-- QUERY 23**

**-- Write a query to find all employees who earn more than the average salary in their departments. Display last name, salary, department ID, and the average salary for the department. Sort by average salary. Use aliases for the columns retrieved by the query as shown in the sample output.**

SELECT E.LAST\_NAME "EMP NAME", E.SALARY "SALARY", E.DEPARTMENT\_ID "DEPARTMENT ID", ROUND(AVG(A.SALARY),1) "DEPARTMENT AVERAGE SAL" FROM EMPLOYEES E JOIN EMPLOYEES A ON E.DEPARTMENT\_ID = A.DEPARTMENT\_ID WHERE E.SALARY > (SELECT AVG(SALARY) FROM EMPLOYEES WHERE DEPARTMENT\_ID = E.DEPARTMENT\_ID ) GROUP BY E.LAST\_NAME, E.SALARY, E.DEPARTMENT\_ID ORDER BY AVG(A.SALARY);



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