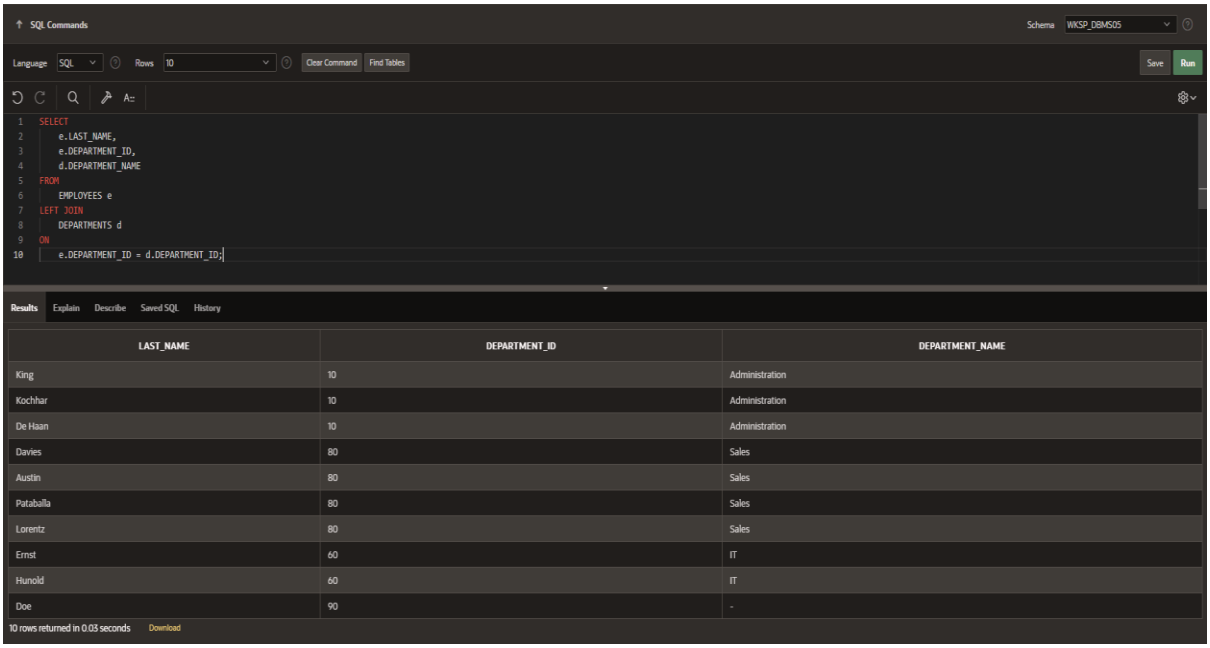
EXERCISE-7
Displaying data from multiple tables

Name: Vedhasree S

Register Number: 240701580

Department: CSE

1. Write a query to display the last name, department number, and department name for all employees.

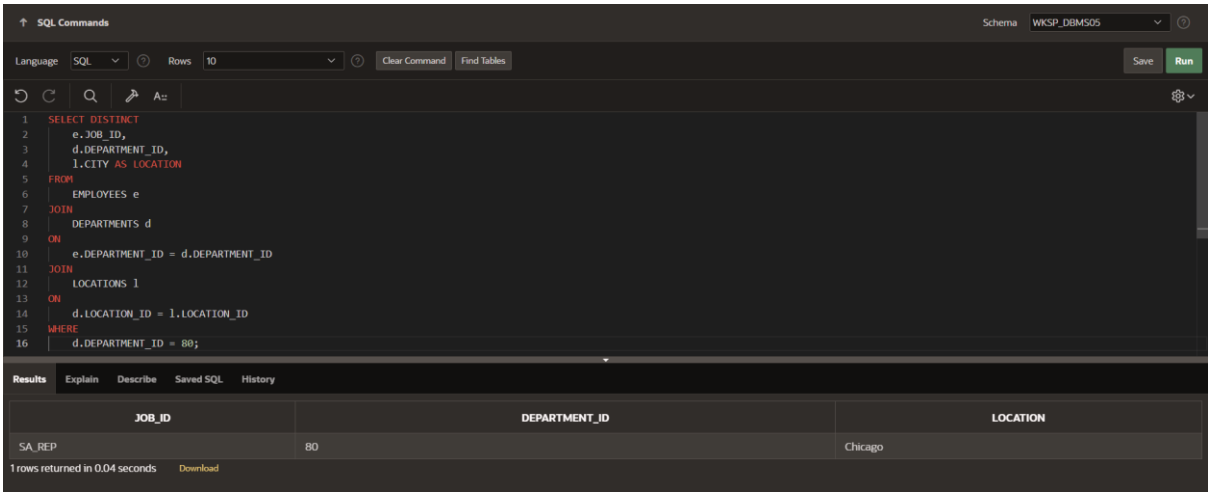


```
SELECT
    e.LAST_NAME,
    e.DEPARTMENT_ID,
    d.DEPARTMENT_NAME
FROM
    EMPLOYEES e
LEFT JOIN
    DEPARTMENTS d
ON
    e.DEPARTMENT_ID = d.DEPARTMENT_ID;
```

LAST_NAME	DEPARTMENT_ID	DEPARTMENT_NAME
King	10	Administration
Kochhar	10	Administration
De Haan	10	Administration
Davies	80	Sales
Austin	80	Sales
Pataballa	80	Sales
Lorentz	80	Sales
Ernst	60	IT
Hunold	60	IT
Doe	90	-

10 rows returned in 0.03 seconds Download

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

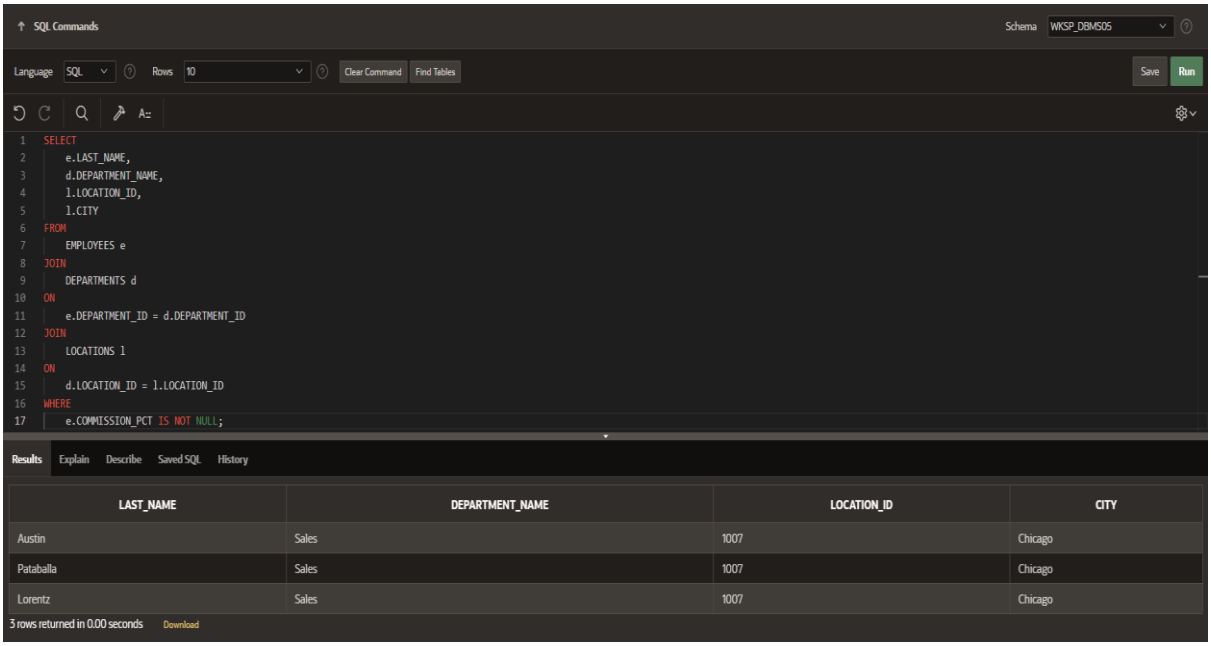


```
SELECT DISTINCT
    e.JOB_ID,
    d.DEPARTMENT_ID,
    l.CITY AS LOCATION
FROM
    EMPLOYEES e
JOIN
    DEPARTMENTS d
ON
    e.DEPARTMENT_ID = d.DEPARTMENT_ID
JOIN
    LOCATIONS l
ON
    d.LOCATION_ID = l.LOCATION_ID
WHERE
    d.DEPARTMENT_ID = 80;
```

JOB_ID	DEPARTMENT_ID	LOCATION
SA_REP	80	Chicago

1 rows returned in 0.04 seconds Download

3. Write a query to display the employee last name, department name, location ID, and city of all employees who earn a commission.

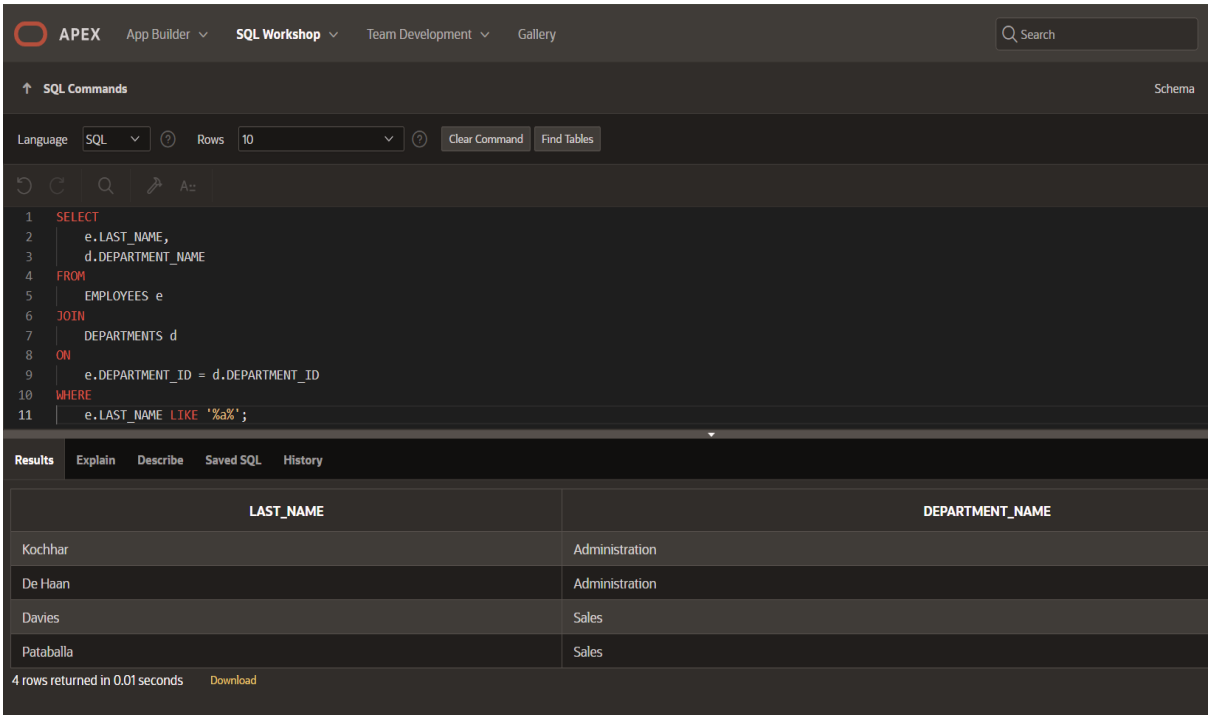


```
SELECT
    e.LAST_NAME,
    d.DEPARTMENT_NAME,
    l.LOCATION_ID,
    l.CITY
FROM
    EMPLOYEES e
JOIN
    DEPARTMENTS d
ON
    e.DEPARTMENT_ID = d.DEPARTMENT_ID
JOIN
    LOCATIONS l
ON
    d.LOCATION_ID = l.LOCATION_ID
WHERE
    e.COMMISSION_PCT IS NOT NULL;
```

LAST_NAME	DEPARTMENT_NAME	LOCATION_ID	CITY
Austin	Sales	1007	Chicago
Pataballa	Sales	1007	Chicago
Lorentz	Sales	1007	Chicago

3 rows returned in 0.00 seconds Download

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

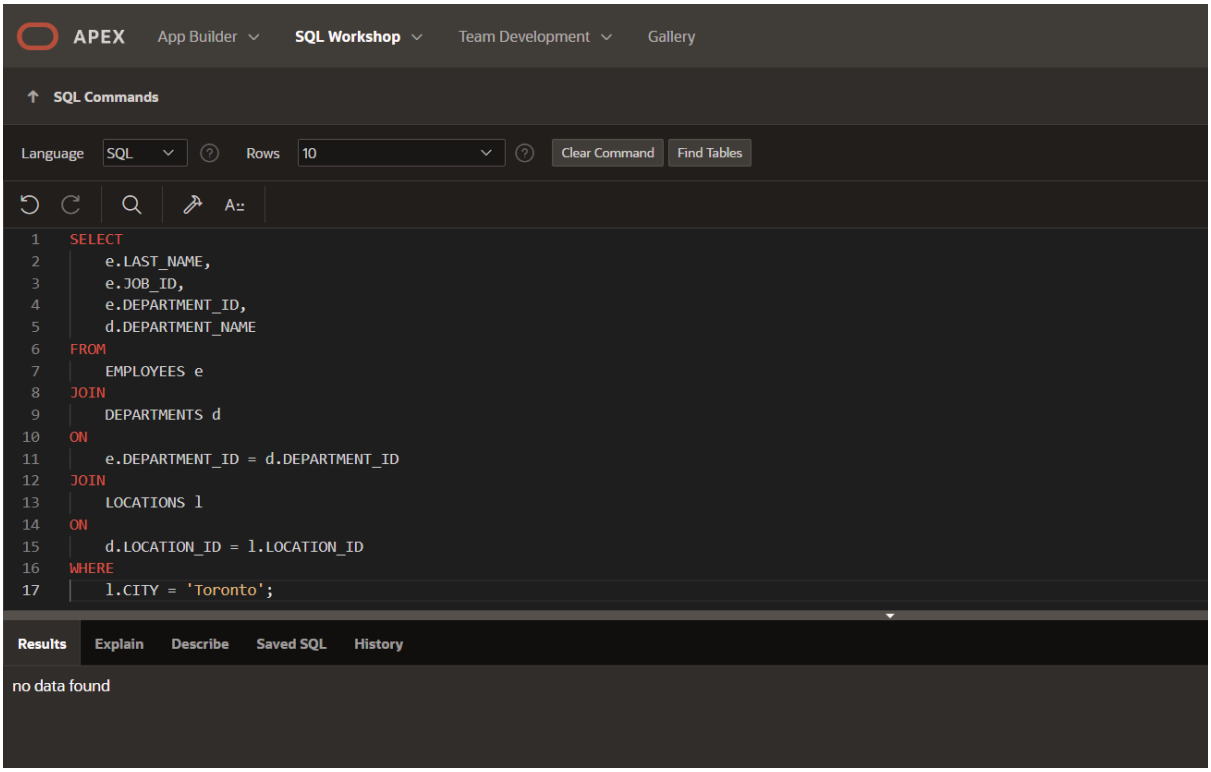


```
SELECT
    e.LAST_NAME,
    d.DEPARTMENT_NAME
FROM
    EMPLOYEES e
JOIN
    DEPARTMENTS d
ON
    e.DEPARTMENT_ID = d.DEPARTMENT_ID
WHERE
    e.LAST_NAME LIKE '%a%';
```

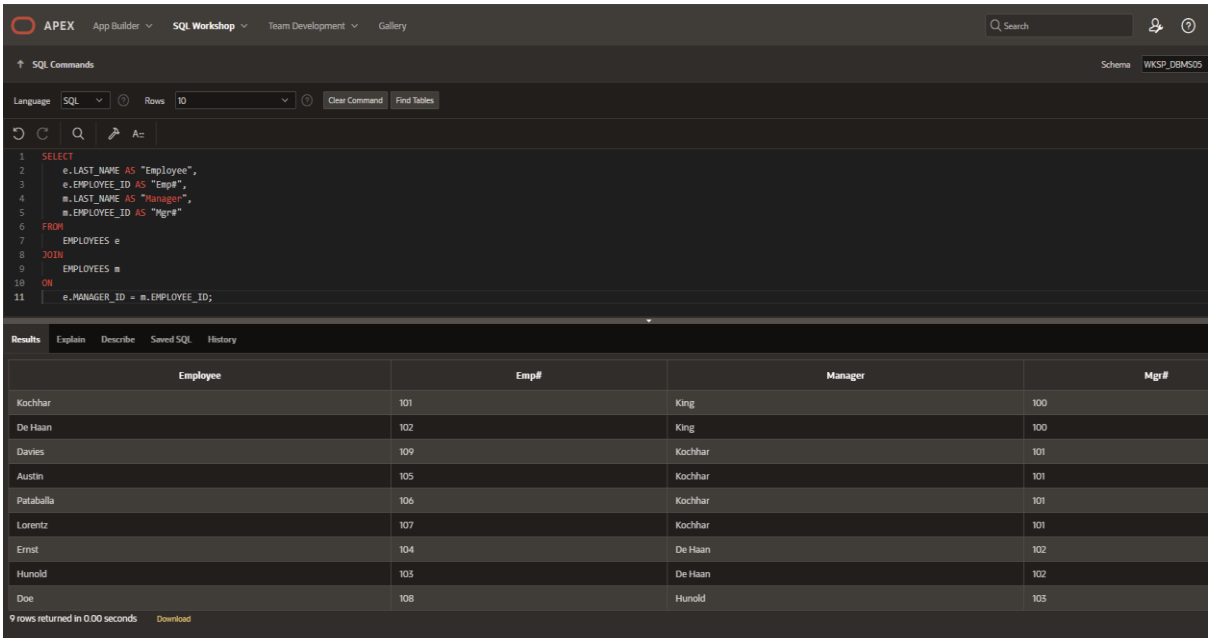
LAST_NAME	DEPARTMENT_NAME
Kochhar	Administration
De Haan	Administration
Davies	Sales
Pataballa	Sales

4 rows returned in 0.01 seconds Download

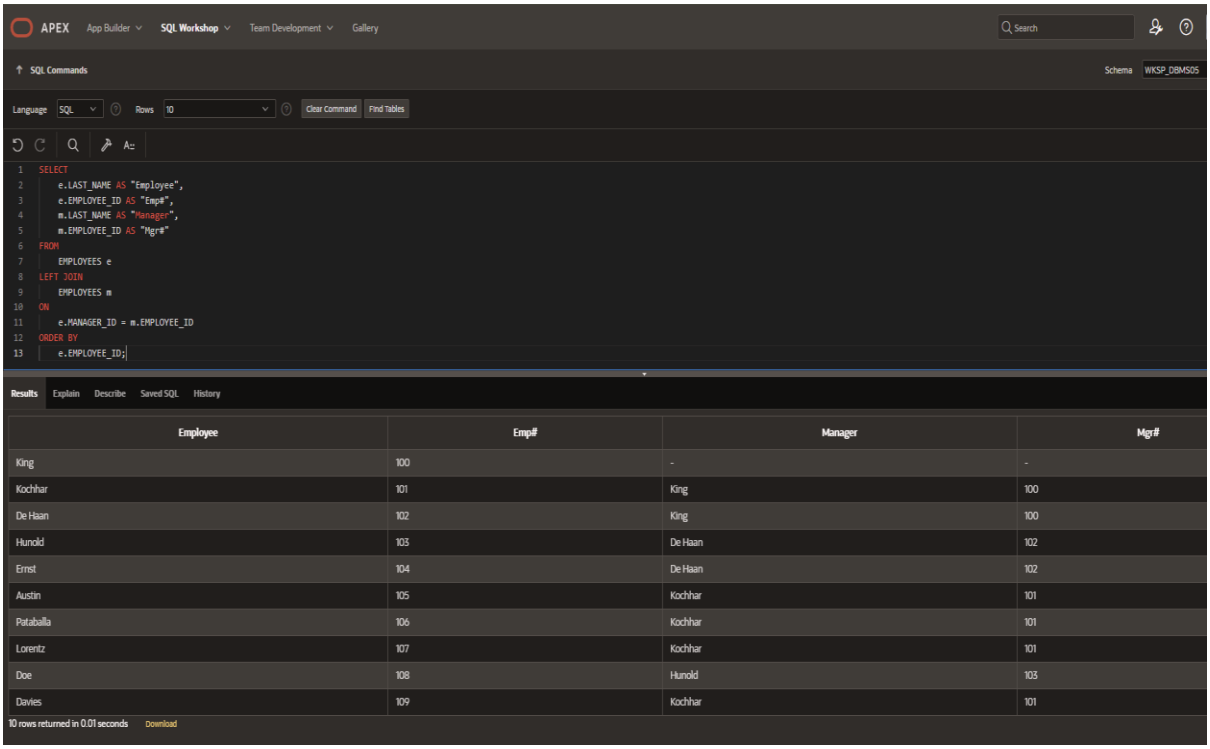
5. Write a query to display the last name, job, department number, and department name for all employees who work in Toronto.



6. Display the employee last name and employee number along with their manager's last name and manager number. Label the columns Employee, Emp#, Manager, and Mgr#, Respectively.



7. Modify lab4_6.sql to display all employees including King, who has no manager. Order the results by the employee number.

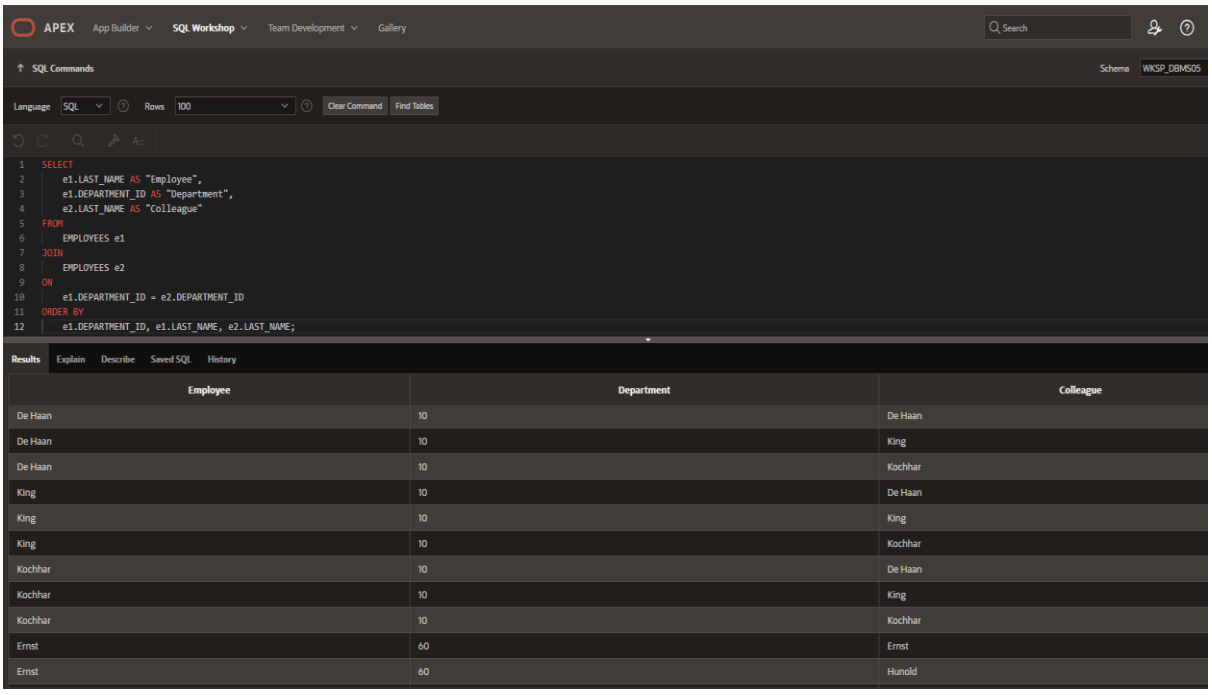


```
SELECT
    e.LAST_NAME AS "Employee",
    e.EMPLOYEE_ID AS "Emp#",
    m.LAST_NAME AS "Manager",
    m.EMPLOYEE_ID AS "Mgr#"
FROM
    EMPLOYEES e
LEFT JOIN
    EMPLOYEES m
ON
    e.MANAGER_ID = m.EMPLOYEE_ID
ORDER BY
    e.EMPLOYEE_ID;
```

Employee	Emp#	Manager	Mgr#
King	100	-	-
Kochhar	101	King	100
De Haan	102	King	100
Hunold	103	De Haan	102
Ernst	104	De Haan	102
Austin	105	Kochhar	101
Pataballa	106	Kochhar	101
Lorentz	107	Kochhar	101
Doe	108	Hunold	103
Davies	109	Kochhar	101

10 rows returned in 0.01 seconds

8. 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
    e1.LAST_NAME AS "Employee",
    e1.DEPARTMENT_ID AS "Department",
    e2.LAST_NAME AS "Colleague"
FROM
    EMPLOYEES e1
JOIN
    EMPLOYEES e2
ON
    e1.DEPARTMENT_ID = e2.DEPARTMENT_ID
ORDER BY
    e1.DEPARTMENT_ID, e1.LAST_NAME, e2.LAST_NAME;
```

Employee	Department	Colleague
De Haan	10	De Haan
De Haan	10	King
De Haan	10	Kochhar
King	10	De Haan
King	10	King
King	10	Kochhar
Kochhar	10	De Haan
Kochhar	10	King
Kochhar	10	Kochhar
Ernst	60	Ernst
Ernst	60	Hunold

9. Show the structure of the JOB_GRADES table. Create a query that displays the name, job, department name, salary, and grade for all employees.

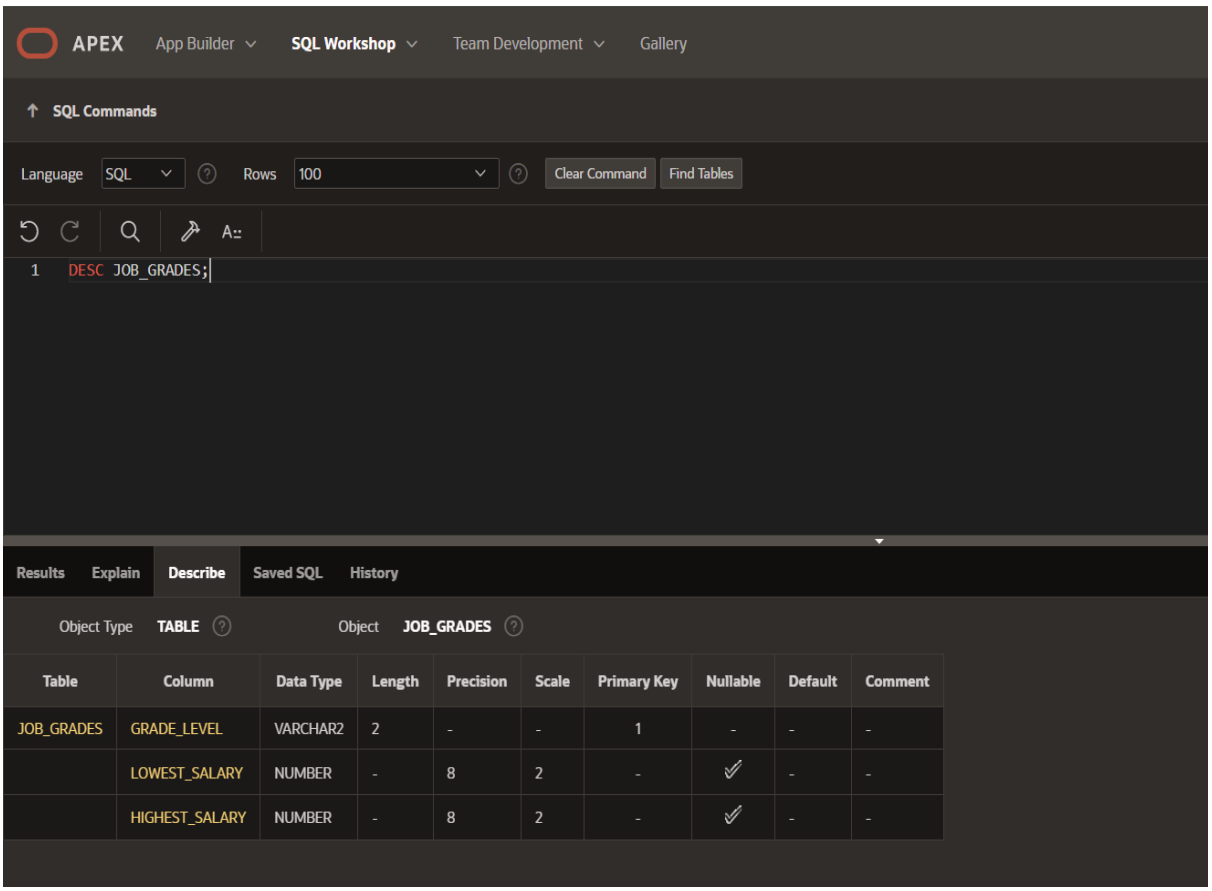
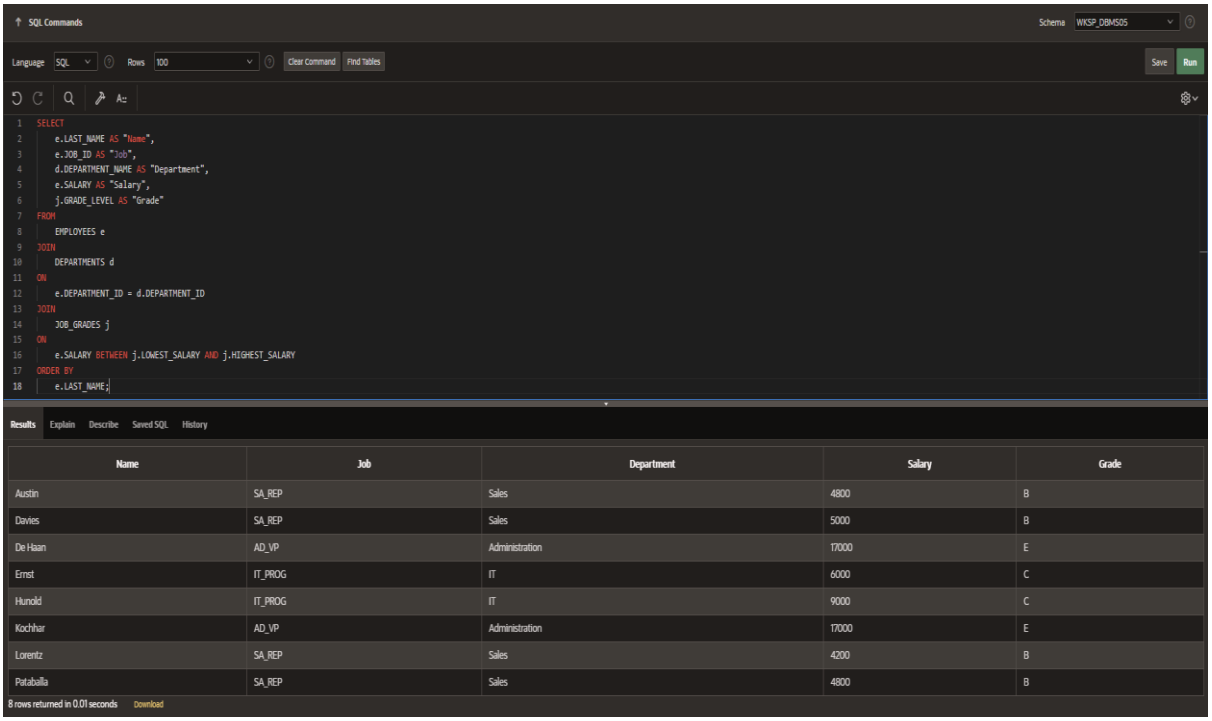


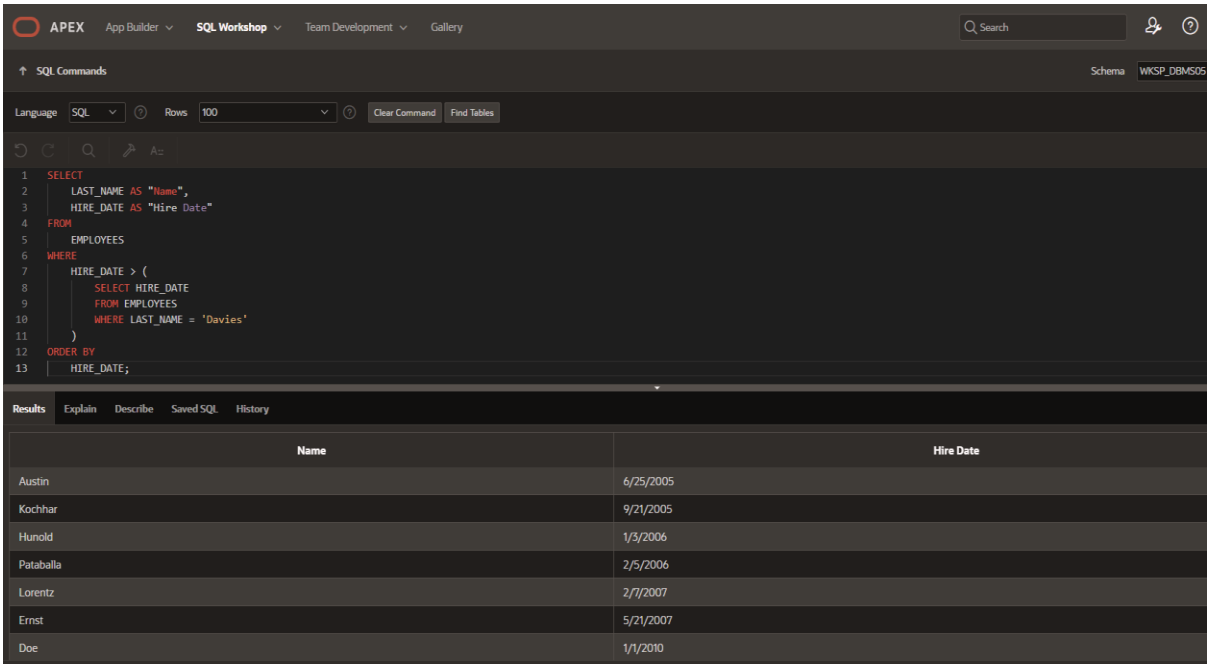
Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
JOB_GRADES	GRADE_LEVEL	VARCHAR2	2	-	-	1	-	-	-
	LOWEST_SALARY	NUMBER	-	8	2	-	✓	-	-
	HIGHEST_SALARY	NUMBER	-	8	2	-	✓	-	-



Name	Job	Department	Salary	Grade
Austin	SA_REP	Sales	4800	B
Davies	SA_REP	Sales	5000	B
De Haan	AD_VP	Administration	17000	E
Ernst	IT_PROG	IT	6000	C
Hunold	IT_PROG	IT	9000	C
Kochhar	AD_VP	Administration	17000	E
Lorentz	SA_REP	Sales	4200	B
Pataballa	SA_REP	Sales	4800	B

8 rows returned in 0.01 seconds Download

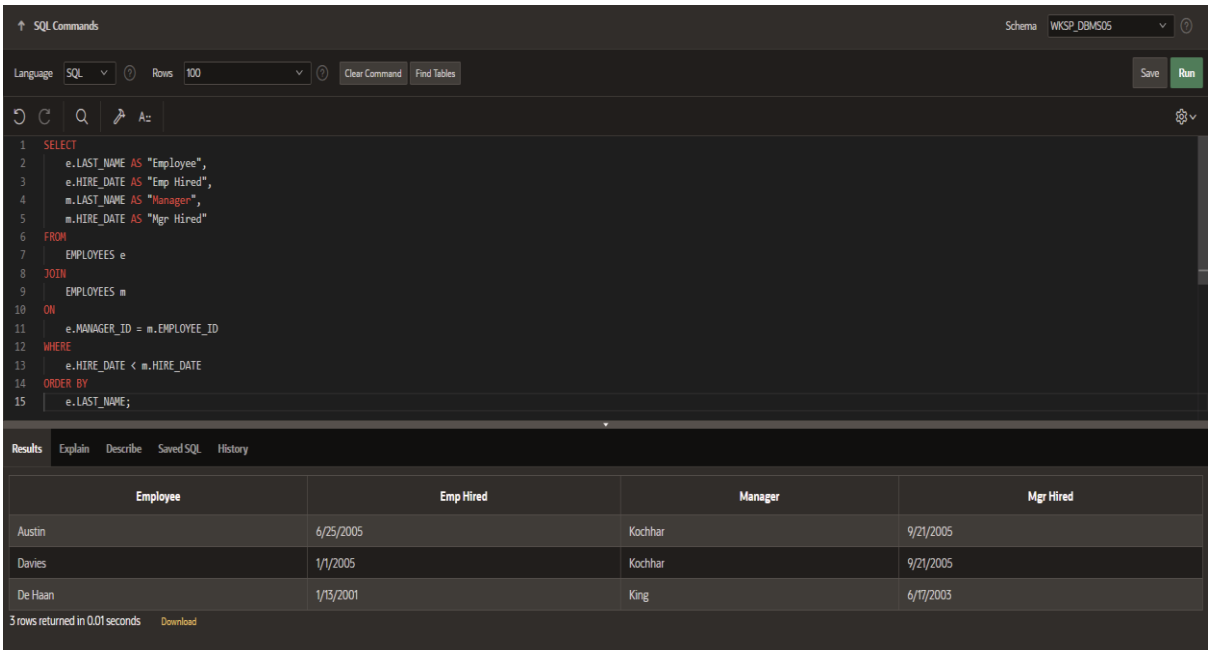
10. Create a query to display the name and hire date of any employee hired after employee Davies.



```
SELECT
    LAST_NAME AS "Name",
    HIRE_DATE AS "Hire Date"
FROM
    EMPLOYEES
WHERE
    HIRE_DATE > (
        SELECT HIRE_DATE
        FROM EMPLOYEES
        WHERE LAST_NAME = 'Davies'
    )
ORDER BY
    HIRE_DATE;
```

Name	Hire Date
Austin	6/25/2005
Kochhar	9/21/2005
Hunold	1/3/2006
Pataballa	2/5/2006
Lorentz	2/7/2007
Ernst	5/21/2007
Doe	1/1/2010

11. 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.LAST_NAME AS "Employee",
    e.HIRE_DATE AS "Emp Hired",
    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
ORDER BY
    e.LAST_NAME;
```

Employee	Emp Hired	Manager	Mgr Hired
Austin	6/25/2005	Kochhar	9/21/2005
Davies	1/1/2005	Kochhar	9/21/2005
De Haan	1/13/2001	King	6/17/2003

3 rows returned in 0.01 seconds Download