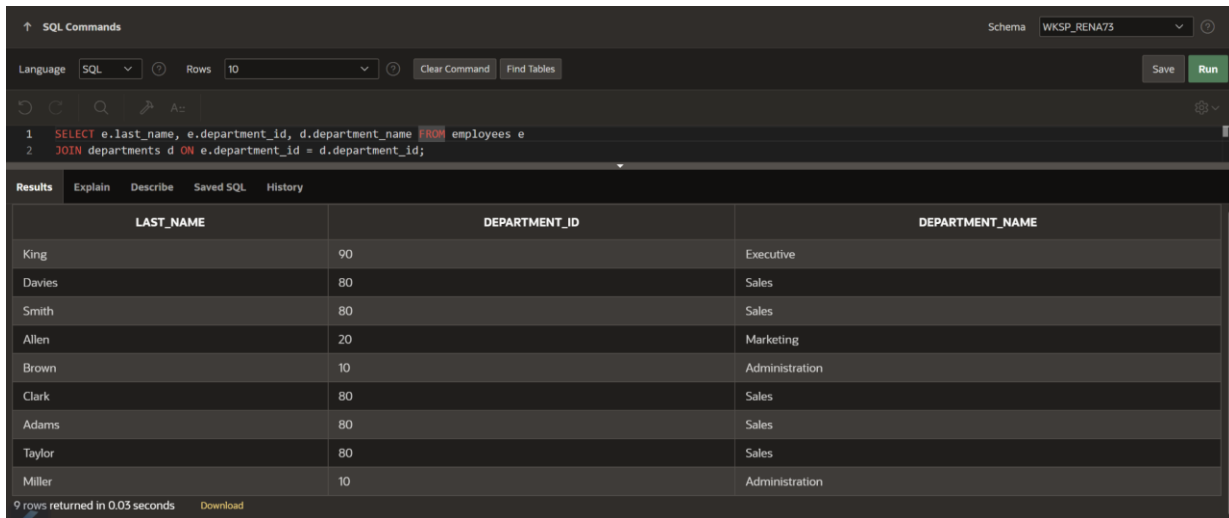


EXERCISE-7

Displaying data from multiple tables

NAME	Madhumitha K
ROLL NO	241801145
DEPARTMENT	AI&DS

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



The screenshot shows the SQL Developer interface with the following SQL query:

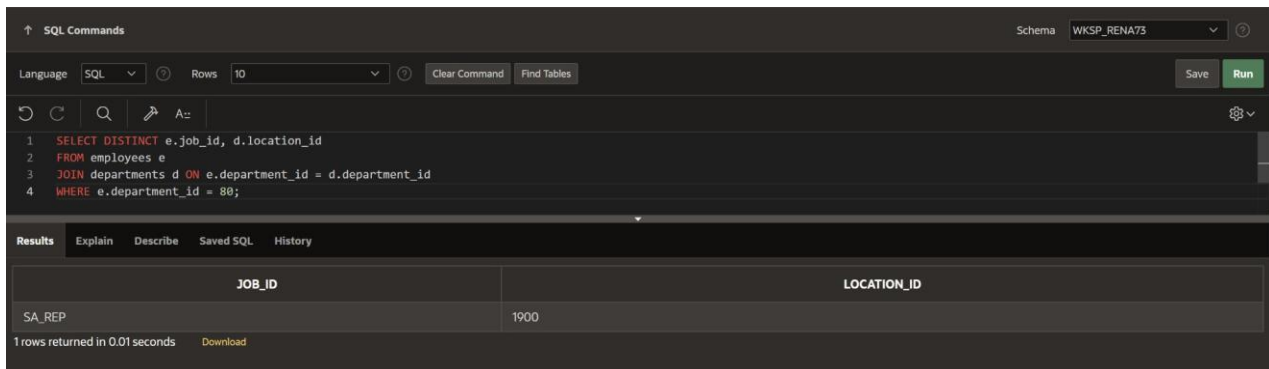
```
1 SELECT e.last_name, e.department_id, d.department_name FROM employees e
2 JOIN departments d ON e.department_id = d.department_id;
```

The results are displayed in a table with the following columns: LAST_NAME, DEPARTMENT_ID, and DEPARTMENT_NAME.

LAST_NAME	DEPARTMENT_ID	DEPARTMENT_NAME
King	90	Executive
Davies	80	Sales
Smith	80	Sales
Allen	20	Marketing
Brown	10	Administration
Clark	80	Sales
Adams	80	Sales
Taylor	80	Sales
Miller	10	Administration

9 rows returned in 0.03 seconds

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



The screenshot shows the SQL Developer interface with the following SQL query:

```
1 SELECT DISTINCT e.job_id, d.location_id
2 FROM employees e
3 JOIN departments d ON e.department_id = d.department_id
4 WHERE e.department_id = 80;
```

The results are displayed in a table with the following columns: JOB_ID and LOCATION_ID.

JOB_ID	LOCATION_ID
SA_REP	1900

1 rows returned in 0.01 seconds

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

SQL Commands

Schema: WKSP_RENA73

Language: SQL Rows: 10 Clear Command Find Tables Save Run

```

1 SELECT e.last_name, d.department_name, l.location_id, l.city
2 FROM employees e
3 JOIN departments d ON e.department_id = d.department_id
4 JOIN locations l ON d.location_id = l.location_id
5 WHERE e.commission_pct IS NOT NULL;

```

Results Explain Describe Saved SQL History

LAST_NAME	DEPARTMENT_NAME	LOCATION_ID	CITY
Davies	Sales	1900	Chicago
Smith	Sales	1900	Chicago
Clark	Sales	1900	Chicago
Taylor	Sales	1900	Chicago

4 rows returned in 0.03 seconds Download

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

SQL Commands

Schema: WKSP_RENA73

Language: SQL Rows: 10 Clear Command Find Tables Save Run

```

1 SELECT e.last_name, d.department_name
2 FROM employees e
3 JOIN departments d ON e.department_id = d.department_id
4 WHERE e.last_name LIKE '%a%';

```

Results Explain Describe Saved SQL History

LAST_NAME	DEPARTMENT_NAME
Davies	Sales
Clark	Sales
Adams	Sales
Taylor	Sales

4 rows returned in 0.00 seconds Download

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

SQL Commands

Schema: WKSP_RENA73

Language: SQL Rows: 10 Clear Command Find Tables Save Run

```

1 SELECT e.last_name, e.job_id, e.department_id, d.department_name
2 FROM employees e
3 JOIN departments d ON e.department_id = d.department_id
4 JOIN locations l ON d.location_id = l.location_id
5 WHERE l.city = 'Toronto';

```

Results Explain Describe Saved SQL History

LAST_NAME	JOB_ID	DEPARTMENT_ID	DEPARTMENT_NAME
Brown	AD_ASST	10	Administration
Miller	AD_ASST	10	Administration
King	CEO	90	Executive

3 rows returned in 0.01 seconds Download

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

SQL Commands

Schema: WKSP_RENA73

Language: SQL Rows: 10 Clear Command Find Tables Save Run

```

1 SELECT e.last_name AS Employee,
2      e.employee_id AS Emp#, m.last_name AS Manager, m.employee_id AS Mgr# FROM employees e
3 LEFT JOIN employees m ON e.manager_id = m.employee_id;

```

Results Explain Describe Saved SQL History

EMPLOYEE	EMP#	MANAGER	MGR#
Davies	101	King	100
Allen	103	King	100
Smith	102	Davies	101
Clark	105	Davies	101
Taylor	107	Davies	101
Adams	106	Smith	102
Brown	104	Allen	103
Miller	108	Allen	103
King	100	-	-

9 rows returned in 0.01 seconds Download

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

SQL Commands

Schema: WKSP_RENA73

Language: SQL Rows: 10 Clear Command Find Tables Save Run

```

1 SELECT e.last_name AS Employee,
2      e.employee_id AS Emp#, NVL(m.last_name, 'No Manager') AS Manager, NVL(TO_CHAR(m.employee_id), '-') AS Mgr# FROM employees e
3 LEFT JOIN employees m ON e.manager_id = m.employee_id
4 ORDER BY e.employee_id;

```

Results Explain Describe Saved SQL History

EMPLOYEE	EMP#	MANAGER	MGR#
Davies	101	King	100
Smith	102	Davies	101
Allen	103	King	100
Brown	104	Allen	103
Clark	105	Davies	101
Adams	106	Smith	102
Taylor	107	Davies	101
Miller	108	Allen	103

9 rows returned in 0.01 seconds Download

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.

SQL Commands

Schema: WKSP_RENA73

Language: SQL Rows: 10

Clear Command Find Tables Save Run

```

1 SELECT e.last_name AS Employee, e.department_id AS Dept_No, e2.last_name AS Colleague FROM employees e
2 JOIN employees e2
3   ON e.department_id = e2.department_id
4  WHERE e.employee_id <> e2.employee_id
5  ORDER BY e.department_id;

```

Results Explain Describe Saved SQL History

EMPLOYEE	DEPT_NO	COLLEAGUE
Miller	10	Brown
Brown	10	Miller
Taylor	80	Davies
Davies	80	Smith
Clark	80	Smith
Adams	80	Smith
Taylor	80	Smith
Davies	80	Clark

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

SQL Commands

Schema: WKSP_RENA73

Language: SQL Rows: 10

Clear Command Find Tables Save Run

```

1 SELECT e.last_name, e.job_id, d.department_name, e.salary, g.grade_level FROM employees e
2 JOIN departments d ON e.department_id = d.department_id
3 JOIN job_grades g ON e.salary BETWEEN g.lowest_sal AND g.highest_sal;

```

Results Explain Describe Saved SQL History

LAST_NAME	JOB_ID	DEPARTMENT_NAME	SALARY	GRADE_LEVEL
Miller	AD_ASST	Administration	3500	A
Brown	AD_ASST	Administration	4000	A
Allen	MK_MAN	Marketing	9000	B
Clark	SA_REP	Sales	4500	A
Davies	SA_REP	Sales	5000	B
Taylor	SA_REP	Sales	5500	B
Smith	SA_REP	Sales	6000	B
Adams	SA_REP	Sales	7000	B
King	CEO	Executive	20000	C

9 rows returned in 0.04 seconds Download

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

SQL Commands

SchemaWKSP_RENA73

LanguageSQLRows10Clear CommandFind Tables

Az

1SELECT e.last_name, e.hire_date

2FROM employees e

3WHERE e.hire_date > (SELECT hire_date FROM employees WHERE last_name = 'Davies');

Results

ExplainDescribeSaved SQLHistory

LAST_NAME	HIRE_DATE
Smith	5/10/2006
Allen	6/20/2007
Brown	7/25/2008
Clark	9/15/2009
Miller	8/21/2010

5 rows returned in 0.01 secondsDownload

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.

SQL Commands		Schema	WKSP_RENA73												
Language	SQL	Rows	10												
<pre> 1 SELECT e.last_name AS Employee,e.hire_date AS "Emp Hired", m.last_name AS Manager, m.hire_date AS "Mgr Hired" 2 FROM employees e 3 JOIN employees m ON e.manager_id = m.employee_id 4 WHERE e.hire_date < m.hire_date; </pre>															
Results															
<table> <thead> <tr> <th>EMPLOYEE</th><th>Emp Hired</th><th>MANAGER</th><th>Mgr Hired</th></tr> </thead> <tbody> <tr> <td>Taylor</td><td>12/1/2004</td><td>Davies</td><td>2/15/2005</td></tr> <tr> <td>Adams</td><td>3/12/2003</td><td>Smith</td><td>5/10/2006</td></tr> </tbody> </table>				EMPLOYEE	Emp Hired	MANAGER	Mgr Hired	Taylor	12/1/2004	Davies	2/15/2005	Adams	3/12/2003	Smith	5/10/2006
EMPLOYEE	Emp Hired	MANAGER	Mgr Hired												
Taylor	12/1/2004	Davies	2/15/2005												
Adams	3/12/2003	Smith	5/10/2006												
2 rows returned in 0.01 seconds															