

EXERCISE-5

Restricting and Sorting data

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1. Create a query to display the last name and salary of employees earning more than 12000.

The screenshot shows the SQL Developer interface with the following SQL query entered in the command window:

```
1 SELECT last_name, salary
2 FROM employees
3 WHERE salary > 12000;
```

The query has been executed, and the results are displayed in the Results tab. The results show one row with the last name 'Kumar' and a salary of 15000.

LAST_NAME	SALARY
Kumar	15000

1 rows returned in 0.01 seconds

2. Create a query to display the employee last name and department number for employee number 176.

The screenshot shows the SQL Developer interface with the following SQL query entered in the command window:

```
1 SELECT last_name, department_id
2 FROM employees
3 WHERE employee_id = 176;
```

The query has been executed, and the results are displayed in the Results tab. The results show one row with the last name 'King' and a department ID of 20.

LAST_NAME	DEPARTMENT_ID
King	20

1 rows returned in 0.01 seconds

3. Create a query to display the last name and salary of employees whose salary is not in the range of 5000 and 12000. (hints: not between)

The screenshot shows the SQL Developer interface with the following SQL query entered in the command window:

```
1 SELECT last_name, salary
2 FROM employees
3 WHERE salary NOT BETWEEN 5000 AND 12000;
```

The results pane displays the following data:

LAST_NAME	SALARY
Adams	4000
Brown	4500
Kumar	15000

3 rows returned in 0.00 seconds

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. (hints: between)

The screenshot shows the SQL Developer interface with the following SQL query entered in the command window:

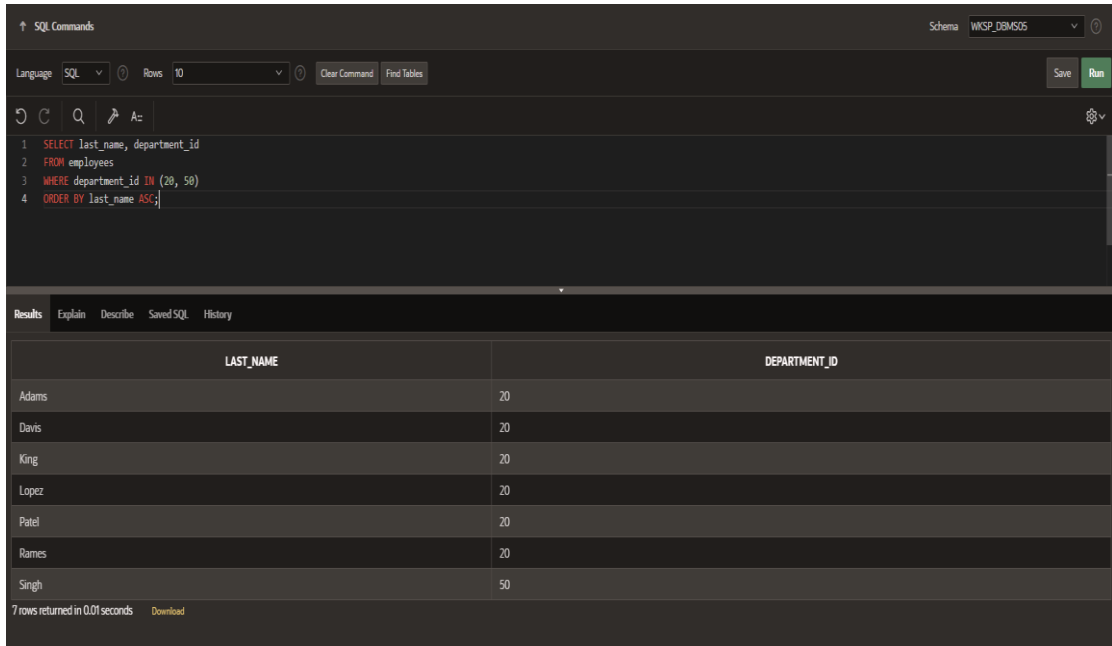
```
1 SELECT last_name, job_id, hire_date AS start_date
2 FROM employees
3 WHERE hire_date BETWEEN TO_DATE('1998-02-20', 'YYYY-MM-DD') AND TO_DATE('1998-05-01', 'YYYY-MM-DD')
4 ORDER BY hire_date ASC;
```

The results pane displays the following data:

LAST_NAME	JOB_ID	START_DATE
Lopez	HR_REP	3/15/1998

1 rows returned in 0.00 seconds

5. Display the last name and department number of all employees in departments 20 and 50 in alphabetical order by name. (hints: in, orderby)



The screenshot shows a SQL IDE interface with the following components:

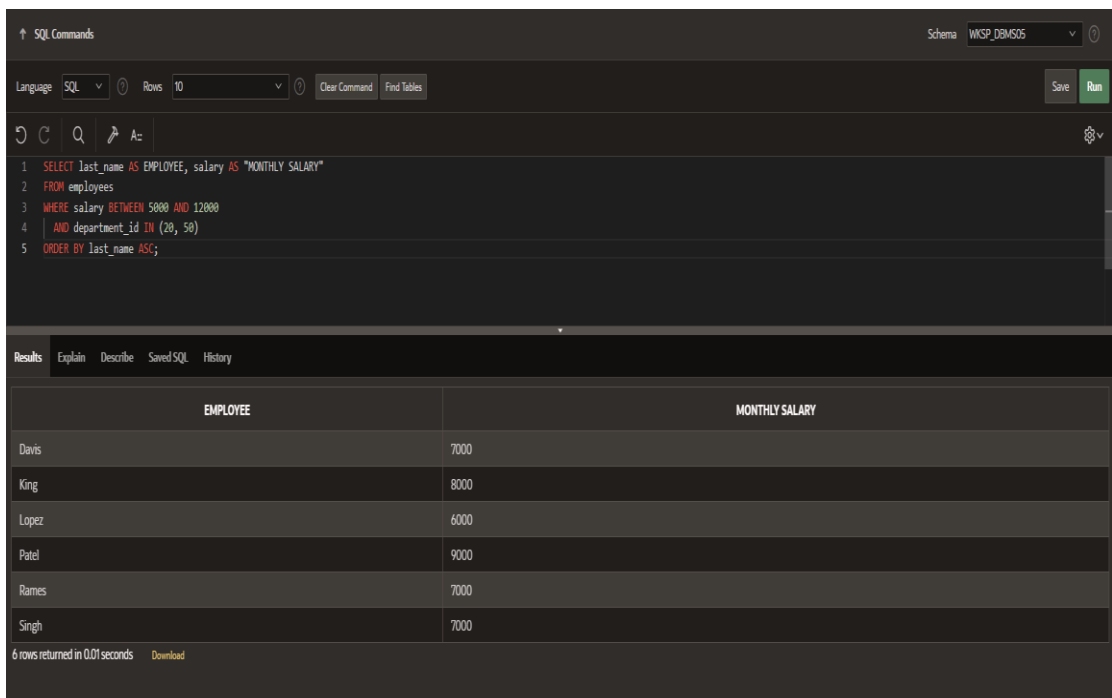
- SQL Commands:** Language: SQL, Rows: 10, Clear Command, Find Tables, Save, Run.
- Query:**

```
1 SELECT last_name, department_id
2 FROM employees
3 WHERE department_id IN (20, 50)
4 ORDER BY last_name ASC;
```
- Results:** Explain, Describe, Saved SQL, History.
- Table:**

LAST_NAME	DEPARTMENT_ID
Adams	20
Davis	20
King	20
Lopez	20
Patel	20
Rames	20
Singh	50

7 rows returned in 0.01 seconds Download

6. Display the last name and salary of all employees who earn between 5000 and 12000 and are in departments 20 and 50 in alphabetical order by name. Label the columns EMPLOYEE, MONTHLY SALARY respectively. (hints: between, in)



The screenshot shows a SQL IDE interface with the following components:

- SQL Commands:** Language: SQL, Rows: 10, Clear Command, Find Tables, Save, Run.
- Query:**

```
1 SELECT last_name AS EMPLOYEE, salary AS "MONTHLY SALARY"
2 FROM employees
3 WHERE salary BETWEEN 5000 AND 12000
4 AND department_id IN (20, 50)
5 ORDER BY last_name ASC;
```
- Results:** Explain, Describe, Saved SQL, History.
- Table:**

EMPLOYEE	MONTHLY SALARY
Davis	7000
King	8000
Lopez	6000
Patel	9000
Rames	7000
Singh	7000

6 rows returned in 0.01 seconds Download

7. Display the last name and hire date of every employee who was hired in 1994. (hints: like)

The screenshot shows the APEX SQL Workshop interface. The SQL command area contains the following query:

```
1 SELECT last_name, hire_date
2 FROM employees
3 WHERE TO_CHAR(hire_date, 'YYYY') LIKE '1994';
```

The Results tab is active, displaying a table with two columns: LAST_NAME and HIRE_DATE. The table contains one row for the employee Davis, hired on 7/12/1994.

LAST_NAME	HIRE_DATE
Davis	7/12/1994

1 rows returned in 0.01 seconds

8. Display the last name and job title of all employees who do not have a manager. (hints: is null)

The screenshot shows the APEX SQL Workshop interface. The SQL command area contains the following query:

```
1 SELECT last_name, job_id
2 FROM employees
3 WHERE manager_id IS NULL;
```

The Results tab is active, displaying a table with two columns: LAST_NAME and JOB_ID. The table contains six rows for employees who do not have a manager.

LAST_NAME	JOB_ID
Smith	IT_PROG
Singh	SA_REP
Davis	SA_REP
King	SA_REP
Rames	SA_REP
Patel	SA_REP

6 rows returned in 0.01 seconds

9. Display the last name, salary, and commission for all employees who earn commissions. Sort data in descending order of salary and commissions. (hints: is not null, orderby)

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

```
1 SELECT last_name, salary, commission
2 FROM employees
3 WHERE commission IS NOT NULL
4 ORDER BY salary DESC, commission DESC;
```

The results tab displays a table with the following data:

LAST_NAME	SALARY	COMMISSION
Patel	9000	.2
King	8000	.1
Rames	7000	.05
Lopez	6000	.15

4 rows returned in 0.00 seconds

10. Display the last name of all employees where the third letter of the name is *a*. (hints: like)

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

```
1 SELECT last_name
2 FROM employees
3 WHERE last_name LIKE '___a%';
```

The results tab displays a table with the following data:

LAST_NAME
Adams

1 rows returned in 0.01 seconds

11. Display the last name of all employees who have an *a* and an *e* in their last name. (hints: like)

The screenshot shows a SQL IDE interface with the following components:

- SQL Commands** tab: Contains the query:

```
1 SELECT last_name
2 FROM employees
3 WHERE last_name LIKE '%a%'
4 AND last_name LIKE '%e%';
```
- Results** tab: Shows the query results in a table with the header **LAST_NAME**. The results are:

LAST_NAME
Rames
Patel
- Footer**: Indicates "2 rows returned in 0.00 seconds" and provides a "Download" link.

12. Display the last name and job and salary for all employees whose job is sales representative or stock clerk and whose salary is not equal to 2500 ,3500 or 7000. (hints: in, not in)

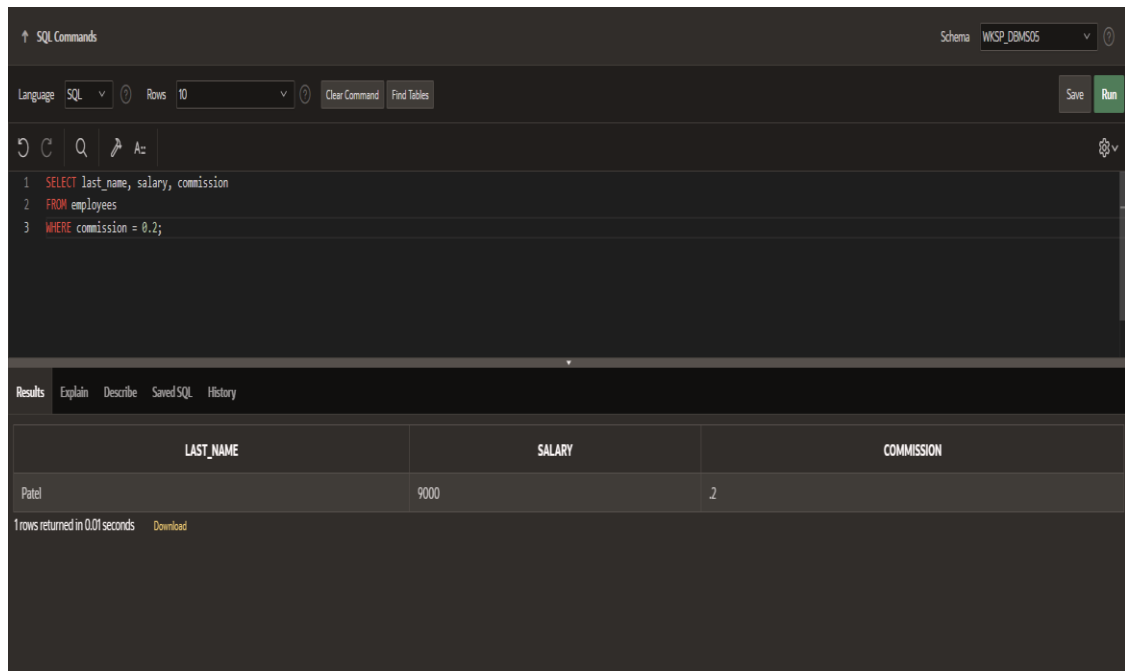
The screenshot shows a SQL IDE interface with the following components:

- SQL Commands** tab: Contains the query:

```
1 SELECT last_name, job_id, salary
2 FROM employees
3 WHERE job_id IN ('SA_REP', 'ST_CLERK')
4 AND salary NOT IN (2500, 3500, 7000);
```
- Results** tab: Shows the query results in a table with headers **LAST_NAME**, **JOB_ID**, and **SALARY**. The results are:

LAST_NAME	JOB_ID	SALARY
King	SA_REP	8000
Kumar	SA_REP	15000
Patel	SA_REP	9000
- Footer**: Indicates "3 rows returned in 0.01 seconds" and provides a "Download" link.

13. Display the last name, salary, and commission for all employees whose commission amount is 20%. (hints: use predicate logic)



The screenshot shows a SQL IDE interface. At the top, the 'SQL Commands' tab is active. The 'Schema' dropdown is set to 'WKSP_DBMS05'. The 'Language' is set to 'SQL' and 'Rows' is set to '10'. The 'Clear Command' and 'Find Tables' buttons are visible. The SQL query is as follows:

```
1 SELECT last_name, salary, commission
2 FROM employees
3 WHERE commission = 0.2;
```

Below the query editor, the 'Results' tab is active. It displays a table with the following data:

LAST_NAME	SALARY	COMMISSION
Patel	9000	.2

At the bottom of the results section, it states '1 rows returned in 0.01 seconds' and provides a 'Download' link.