

DBMS EX - 6

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Exercise : 6

1. Write a query to display the current date. Label the column Date.

The screenshot shows the SQL Developer interface. The command window contains the following SQL query:

```
1 SELECT SYSDATE AS "Date"
2 FROM dual;
3
```

The results pane shows a single column labeled "Date" with the value "8/25/2025".

Date
8/25/2025

2. The HR department needs a report to display the employee number, last name, salary, and increase by 15.5% (expressed as a whole number) for each employee. Label the column New Salary.

The screenshot shows the SQL Developer interface. The command window contains the following SQL query:

```
1 SELECT employee_id,
2        last_name,
3        salary,
4        ROUND(salary * 1.155) AS "New Salary"
5 FROM employees;
```

The results pane shows a table with four columns: EMPLOYEE_ID, LAST_NAME, SALARY, and New Salary. The data is as follows:

EMPLOYEE_ID	LAST_NAME	SALARY	New Salary
300	Revera	55000	63525
1002	Doe	60000	69300
175	Junior	7500	8663
176	shakes	10000	11550

3. Modify your query lab_03_02.sql to add a column that subtracts the old salary from the new salary. Label the column Increase.

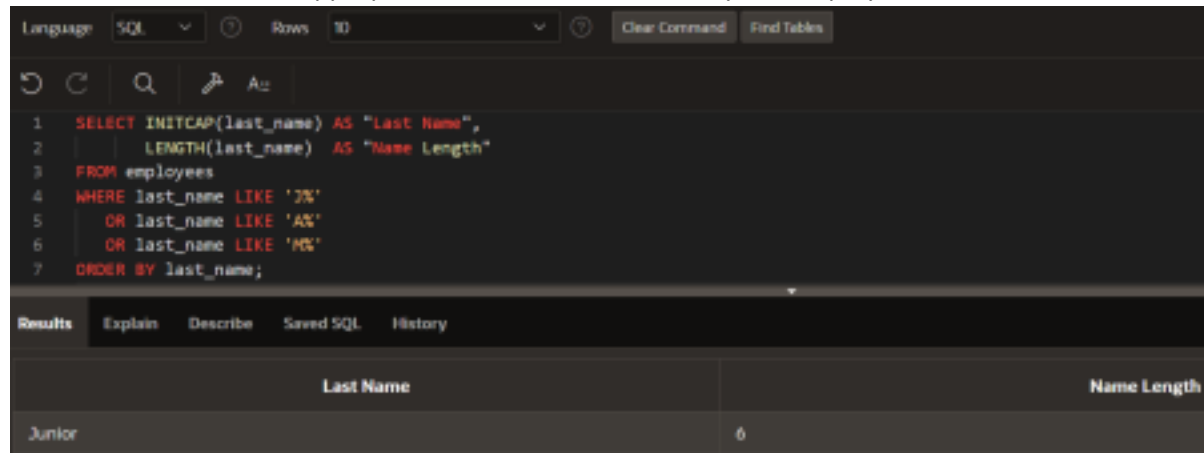
The screenshot shows the SQL Developer interface. The command window contains the following SQL query:

```
1 SELECT employee_id,
2        last_name,
3        salary,
4        ROUND(salary * 1.155) AS "New Salary",
5        ROUND(salary * 1.155) - salary AS Increase
6 FROM employees;
```

The results pane shows a table with five columns: EMPLOYEE_ID, LAST_NAME, SALARY, New Salary, and INCREASE. The data is as follows:

EMPLOYEE_ID	LAST_NAME	SALARY	New Salary	INCREASE
300	Revera	55000	63525	8525
1002	Doe	60000	69300	9300
175	Junior	7500	8663	1163
176	shakes	10000	11550	1550

4. Write a query that displays the last name (with the first letter uppercase and all other letters lowercase) and the length of the last name for all employees whose name starts with the letters J, A, or M. Give each column an appropriate label. Sort the results by the employees' last names.



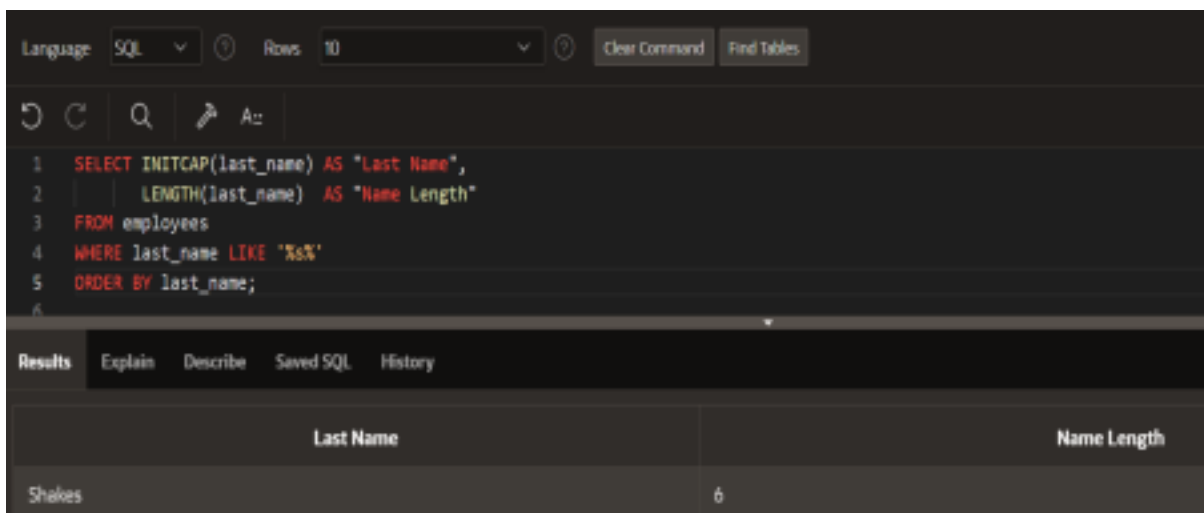
The screenshot shows a SQL IDE interface. At the top, there's a toolbar with 'Language' set to 'SQL', 'Rows' set to '10', and buttons for 'Clear Command' and 'Find Tables'. Below the toolbar is a search bar with a magnifying glass icon and the text 'A:'. The main area contains a SQL query:

```
1 SELECT INITCAP(last_name) AS "Last Name",
2    LENGTH(last_name) AS "Name Length"
3 FROM employees
4 WHERE last_name LIKE 'J%'
5    OR last_name LIKE 'A%'
6    OR last_name LIKE 'M%'
7 ORDER BY last_name;
```

Below the query, there's a tabbed interface with 'Results' selected. The results are displayed in a table with two columns: 'Last Name' and 'Name Length'. The first row shows 'Junior' and '6'.

Last Name	Name Length
Junior	6

5. Rewrite the query so that the user is prompted to enter a letter that starts the last name. For example, if the user enters H when prompted for a letter, then the output should show all employees whose last name starts with the letter H.



The screenshot shows a SQL IDE interface. At the top, there's a toolbar with 'Language' set to 'SQL', 'Rows' set to '10', and buttons for 'Clear Command' and 'Find Tables'. Below the toolbar is a search bar with a magnifying glass icon and the text 'A:'. The main area contains a SQL query:

```
1 SELECT INITCAP(last_name) AS "Last Name",
2    LENGTH(last_name) AS "Name Length"
3 FROM employees
4 WHERE last_name LIKE '%s%'
5 ORDER BY last_name;
```

Below the query, there's a tabbed interface with 'Results' selected. The results are displayed in a table with two columns: 'Last Name' and 'Name Length'. The first row shows 'Shakes' and '6'.

Last Name	Name Length
Shakes	6

6. The HR department wants to find the length of employment for each employee. For each employee, display the last name and calculate the number of months between today and the date on which the employee was hired. Label the column MONTHS_WORKED. Order your results by the number of months employed. Round the number of months up to the closest whole number.

Language: SQL Rows: 10

```

1 SELECT last_name,
2        CEIL(MONTHS_BETWEEN(SYSDATE, hire_date)) AS "MONTHS_WORKED"
3 FROM employees
4 ORDER BY "MONTHS_WORKED" DESC;

```

Results Explain Describe Saved SQL History

LAST_NAME	MONTHS_WORKED
Revera	379
shakes	378
Junior	374
Doe	68

7. Create a report that produces the following for each employee: <employee last name> earns <salary> monthly but wants <3 times salary>. Label the column Dream Salaries.

Language: SQL Rows: 10

```

1 SELECT last_name || ' earns ' || salary ||
2        ' monthly but wants ' || (salary*3) AS "Dream Salaries"
3 FROM employees;
4

```

Results Explain Describe Saved SQL History

Dream Salaries
Revera earns 55000 monthly but wants 165000
Doe earns 60000 monthly but wants 180000
Junior earns 7500 monthly but wants 22500
shakes earns 10000 monthly but wants 30000

8. Create a query to display the last name and salary for all employees. Format the salary to be 15 characters long, left-padded with the \$ symbol. Label the column SALARY.

Language: SQL Rows: 10 Clear Command Find Tables

```

1 SELECT last_name,
2        LPAD(salary, 15, '$') AS SALARY
3 FROM employees;
4

```

Results Explain Describe Saved SQL History

LAST_NAME	SALARY
Revera	\$\$\$\$\$\$\$\$\$\$\$55000
Doe	\$\$\$\$\$\$\$\$\$\$\$60000
Junior	\$\$\$\$\$\$\$\$\$\$\$7500
shakes	\$\$\$\$\$\$\$\$\$\$\$10000

9. Display each employee's last name, hire date, and salary review date, which is the first Monday after six months of service. Label the column REVIEW. Format the dates to appear in the format similar to "Monday, the Thirty-First of July, 2000."

Language: SQL Rows: 10 Clear Command Find Tables

```

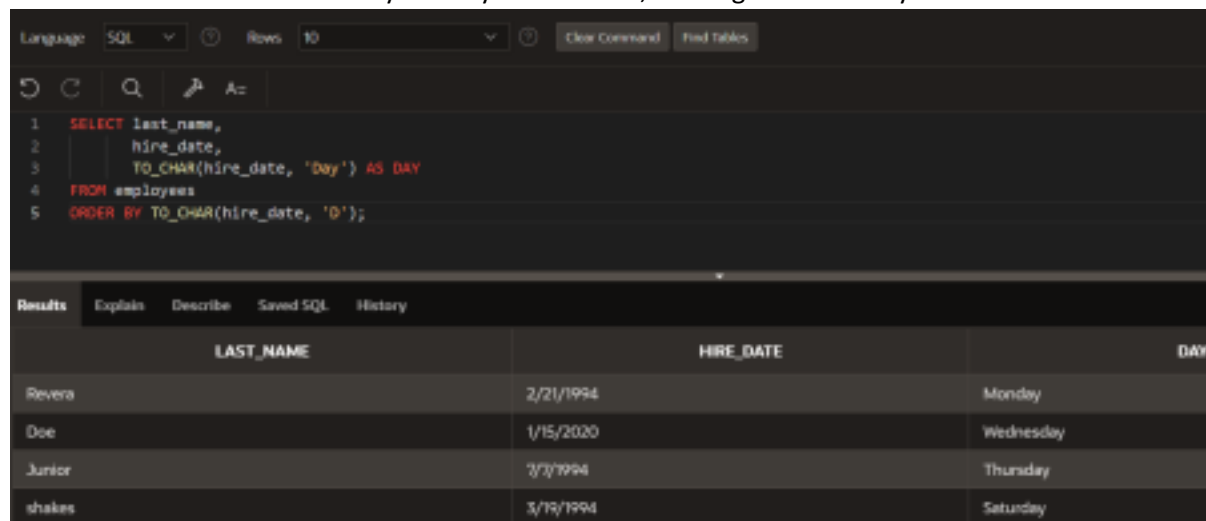
1 SELECT last_name,
2        hire_date,
3        TO_CHAR(
4            NEXT_DAY(ADD_MONTHS(hire_date, 6), 'MONDAY'),
5            'Day, "the" Odspth "of" Month, YYYY'
6        ) AS REVIEW
7 FROM employees;

```

Results Explain Describe Saved SQL History

LAST_NAME	HIRE_DATE	REVIEW
Revera	2/20/1994	Monday , the Twenty-Second of August , 1994
Doe	1/15/2020	Monday , the Twentieth of July , 2020
Junior	7/7/1994	Monday , the Ninth of January , 1995
shakes	3/19/1994	Monday , the Twenty-Sixth of September, 1994

10. Display the last name, hire date, and day of the week on which the employee started. Label the column DAY. Order the results by the day of the week, starting with Monday.



The screenshot shows a SQL IDE interface. At the top, there's a toolbar with 'Language' set to 'SQL', 'Rows' set to '10', and buttons for 'Clear Command' and 'Find Tables'. Below the toolbar is a query editor with the following SQL code:

```
1 SELECT last_name,  
2        hire_date,  
3        TO_CHAR(hire_date, 'Day') AS DAY  
4 FROM employees  
5 ORDER BY TO_CHAR(hire_date, 'D');
```

Below the query editor is a 'Results' tab with sub-tabs for 'Results', 'Explain', 'Describe', 'Saved SQL', and 'History'. The 'Results' sub-tab is active, displaying a table with the following data:

LAST_NAME	HIRE_DATE	DAY
Revera	2/21/1994	Monday
Doe	1/15/2020	Wednesday
Junior	2/3/1994	Thursday
shakes	3/19/1994	Saturday