

Topic	Oracle SQL Language Fundamentals I
Document Name	SQL02-EX-01-05
	Enes Tahtacı

Exercise SQL02-EX-01:

Definiton : Write an SQL query that selects employee's id, employee's first name, employee's last name and employee's **number of months** from hire_date to today for all employees.

(Hint:MONTHS_BETWEEN)

Screenshot:

Welcome Page x TEST_SYS x TEST_SYS~1 x

Worksheet Query Builder

```
-- Exercise SQL02-EX-01:
SELECT employee_id, first_name, last_name,
MONTHS_BETWEEN(CURRENT_TIMESTAMP, hire_date) AS Months
FROM employees;
```

Query Result x Script Output x Query Result 1 x Query Result 2 x Query Result 3 x

SQL | Fetched 50 rows in 0.003 seconds

	EMPLOYEE_ID	FIRST_NAME	LAST_NAME	MONTHS
1	100	Steven	King	253.513657780764635603345280764635603345
2	101	Neena	Kochhar	226.384625522700119474313022700119474313
3	102	Lex	De Haan	282.642690038829151732377538829151732378
4	103	Alexander	Hunold	222.965270683990442054958183990442054958
5	104	Bruce	Ernst	206.384625522700119474313022700119474313
6	105	David	Austin	229.255593264635603345280764635603345281
7	106	Valli	Pataballa	221.900754554958183990442054958183990442
8	107	Diana	Lorentz	209.836238425925925925925925925925925926
9	108	Nancy	Greenberg	263.513657780764635603345280764635603345
10	109	Daniel	Faviet	263.545915845280764635603345280764635603
11	110	John	Chen	226.158819071087216248506571087216248507
12	111	Ismael	Sciarra	226.09430294205495818399044205495818399
13	112	Jose Manuel	Urman	220.836238425925925925925925925925925926
14	113	Luis	Popp	199.836238425925925925925925925925925926
15	114	Den	Raphaely	259.836238425925925925925925925925925926
16	115	Alexander	Khoo	254.481399716248506571087216248506571087
17	116	Shelli	Baida	223.287851329151732377538829151732377539
18	117	Sigal	Tobias	228.287851329151732377538829151732377539
19	118	Guy	Himuro	212.578173909796893667861409796893667861
20	119	Karen	Colmenares	203.739464232377538829151732377538829152

Exercise SQL02-EX-02:

Definiton : Write a query that displays the grade of all employees based on the value of the column JOB_ID, using the following data: (Use DECODE)

Job	Grade
AD_PRES	A
ST_MAN	B

IT_PROG	C
SA_REP	D
ST_CLERK	E
None of the above	0

Screenshot:

The screenshot shows an SQL IDE interface. At the top, a comment reads "-- Exercise SQL02-EX-02:". Below it, a SQL query is entered in a blue editor area:

```
SELECT job_id,
       DECODE(JOB_ID,
              'IT_PROG', 'A',
              'HR_REP', 'B',
              'SA_MAN', 'C',
              'SA_REP', 'D',
              'ST_CLERK', 'E',
              '0') AS grade
FROM employees
GROUP BY job_id
ORDER BY grade DESC;
```

Below the editor, a toolbar shows icons for saving, running, and other functions. The status bar indicates "All Rows Fetched: 19 in 0.003 seconds". The query results are displayed in a table with two columns: JOB_ID and GRADE.

	JOB_ID	GRADE
1	ST_CLERK	E
2	SA_REP	D
3	SA_MAN	C
4	HR_REP	B
5	IT_PROG	A
6	AC_MGR	0
7	AD_ASST	0
8	AC_ACCOUNT	0
9	FI_MGR	0
10	ST_MAN	0
11	AD_PRES	0
12	MK_MAN	0

Exercise SQL02-EX-03:

Definiton : Write a query for SQL02-EX-02(previous question) with using **CASE WHEN**.

Screenshot:

```
-- Exercise SQL02-EX-03:
SELECT job_id,
       CASE
         WHEN job_id = 'IT_PROG' THEN 'A'
         WHEN job_id = 'HR_REP' THEN 'B'
         WHEN job_id = 'SA_MAN' THEN 'C'
         WHEN job_id = 'SA_REP' THEN 'D'
         WHEN job_id = 'ST_CLERK' THEN 'E'
         ELSE '0'
       END AS grade
FROM employees
GROUP BY job_id
ORDER BY grade DESC;
```

Query Result x | Script Output x | Query Result 1 x | Query Result 2 x | Query Result 3 x

SQL | All Rows Fetched: 19 in 0.002 seconds

	JOB_ID	GRADE
1	ST_CLERK	E
2	SA_REP	D
3	SA_MAN	C
4	HR_REP	B
5	IT_PROG	A
6	AC_MGR	0
7	AD_ASST	0
8	AC_ACCOUNT	0
9	FI_MGR	0
10	ST_MAN	0
11	AD PRES	0
12	MK_MAN	0

Exercise SQL02-EX-04:

Definiton : Write a query that displays the employee number and last name of all employees who work in a department with any employee whose last name contains a "i".

Screenshot:

```
--Exercise SQL02-EX-04:
SELECT employee_id, last_name
FROM employees
WHERE last_name LIKE '%i%';
```

Query Result x | Script Output x | Query Result 1 x | Query Result 2 x | Query Result 3 x

SQL | All Rows Fetched: 37 in 0.002 seconds

	EMPLOYEE_ID	LAST_NAME
1	100	King
2	105	Austin
3	109	Faviet
4	111	Sciarra
5	116	Baida
6	117	Tobias
7	118	Himuro
8	120	Weiss
9	121	Fripp
10	122	Kaufling
11	126	Mikkilineni
12	129	Bissot

Exercise SQL02-EX-05:

Definiton :

- Create a table for MY_EMP_TABLE with following columns
- Insert following rows,
- Update salary with 1.10 times of salary value
- Delete rows which first_name is David
- Truncate table.

ID	LAST_NAME	FIRST_NAME	SALARY
1	Black	John	1100
2	White	Kent	1300
3	Orange	David	1700
4	Pink	Alissa	1900

Screenshot:

Created my_emp_table;

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

- Top Bar:** Includes tabs for 'Welcome Page', 'TEST_SYS', and 'TEST_SYS~1'. Below the tabs is a toolbar with various icons for file operations, execution, and formatting.
- Worksheet Tab:** Contains the following SQL code:

```
-- Exercise SQL02-EX-05:
CREATE TABLE my_emp_table(
    first_name    VARCHAR2(20),
    last_name     VARCHAR2(25) NOT NULL,
    salary        NUMBER(8,2)
);

SELECT * FROM my_emp_table;
UPDATE my_emp_table
SET salary = salary*1.10;

DELETE FROM my_emp_table;
```
- Bottom Panel:** Shows the 'Query Result' tab with the following data:

	FIRST_NAME	LAST_NAME	SALARY
1	Neena	Kochhar	17000
2	Lex	De Haan	17000
3	Alexander	Hunold	9000
4	Bruce	Ernst	6000
5	David	Austin	4800
6	Valli	Pataballa	4800
7	Diana	Lorentz	4200
8	Nancy	Greenberg	12008
9	Daniel	Faviet	9000
10	John	Chen	8200
11	Ismael	Sciarra	7700
12	Jose Manuel	Urman	7800
13	Luis	Bonn	6900

Updated salary with 1.10 times of salary value;

Welcome Page x TEST_SYS x TEST_SYS~1 x

Worksheet Query Builder

```
-- Exercise SQL02-EX-05:
CREATE TABLE my_emp_table(
  first_name  VARCHAR2(20),
  last_name   VARCHAR2(25) NOT NULL,
  salary      NUMBER(8,2)
);

SELECT * FROM my_emp_table;
UPDATE my_emp_table
SET salary = salary*1.10;

DELETE FROM my_emp_table;
```

Query Result x Script Output x Query Result 1 x Query Result 2 x

SQL | Fetched 50 rows in 0.001 seconds

	FIRST_NAME	LAST_NAME	SALARY
1	Neena	Kochhar	18700
2	Lex	De Haan	18700
3	Alexander	Hunold	9900
4	Bruce	Ernst	6600
5	David	Austin	5280
6	Valli	Pataballa	5280
7	Diana	Lorentz	4620
8	Nancy	Greenberg	13208.8
9	Daniel	Faviet	9900
10	John	Chen	9020
11	Ismael	Sciarra	8470
12	Jose Manuel	Urman	8580
13	Tina	Debn	7560

Showing rows which first_name is David;

```

SELECT * FROM my_emp_table
WHERE first_name = 'David';

WHERE first_name = 'David';

DELETE FROM my_emp_table;

SELECT * FROM my_emp_table;
SELECT * FROM employees;

```

Query Result x | Script Output x | Query Result 1 x

SQL | All Rows Fetched: 2 in 0.001 seconds

	FIRST_NAME	LAST_NAME	SALARY
1	David	Austin	5280
2	David	Bernstein	10450

Deleted rows which first_name is David;

```

SELECT * FROM my_emp_table
WHERE first_name = 'David';

WHERE first_name = 'David';

DELETE FROM my_emp_table
WHERE first_name = 'David';

SELECT * FROM my_emp_table;
SELECT * FROM employees;

```








Query Result x | Script Output x | Query Result 1 x

SQL | All Rows Fetched: 0 in 0.001 seconds

	FIRST_NAME	LAST_NAME	SALARY
--	------------	-----------	--------

Truncated table;


```
TRUNCATE TABLE my_emp_table;  
SELECT * FROM my_emp_table;
```

 Query Result x	 Script Output x	 Query Result 1 x
    SQL	All Rows Fetched: 0 in 0.002 seconds	
