

LAB ASSIGNMENT – 9

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Class: SE-C	Batch: C3
Date of Experiment: 10-Mar-2022	Date of Submission: 11-April-2022
Grade:	

1. List the departments that do not contain the job ID ST_CLERK, using SET operators.

Query:

```
select department_id
from departments
minus
select department_id
from employees
where job_id = 'ST_CLERK';
```

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```
1 select department_id
2 from departments
3 minus
4 select department_id
5 from employees
6 where job_id = 'ST_CLERK';
```

DEPARTMENT_ID
10
20
60
80
90
110
190

Download CSV

7 rows selected.

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2. Produce list of jobs for departments 10, 50 and 20, in that order. Display job ID and department ID, using SET operator.

Query:

```
column dummy noprint
select job_id, department_id, 'x' dummy
from employees
where department_id = 10
union
select job_id, department_id, 'y'
from employees
where department_id = 50
union
select job_id, department_id, 'z'
from employees
where department_id = 20
order by 3;
column dummy print
```

The screenshot shows the Oracle SQL Worksheet interface. On the left is a navigation sidebar with links: Home, SQL Worksheet, My Session, Schema, Quick SQL, My Scripts, My Tutorials, and Code Library. The main area is titled 'SQL Worksheet' and contains a text editor with the following SQL query:

```
1 column dummy noprint
2 select job_id, department_id, 'x' dummy
3 from employees
4 where department_id = 10
5 union
6 select job_id, department_id, 'y'
7 from employees
8 where department_id = 50
9 union
10 select job_id, department_id, 'z'
11 from employees
12 where department_id = 20
13 order by 3;
14 column dummy print
```

Below the editor, the results are displayed in a table format. Above the table, it says 'Unsupported Command'. The table has three columns: JOB_ID, DEPARTMENT_ID, and DUMMY. It contains five rows of data. Below the table, it says 'Download CSV' and '5 rows selected.'.

JOB_ID	DEPARTMENT_ID	DUMMY
AD_ASST	10	x
ST_CLERK	50	y
ST_MAN	50	y
PK_MAN	20	z
PK_REP	20	z

At the bottom of the interface, there is a footer with copyright information: '© 2022 Oracle - Live SQL 22.1.3, running Oracle Database 19c Enterprise Edition - 19.8.0.0.0 - Database Documentation - Ask Tom - Dev Gym' and a note: 'Built with ❤️ using Oracle APEX - Privacy - Terms of Use'.

- List the employee IDs and job IDs of those employees who currently hold the job title that they held before beginning their tenure with the company.

Query

```
SELECT employee_id,job_id
FROM employees
INTERSECT
SELECT employee_id,job_id
FROM employees;
```

The screenshot shows an SQL Worksheet interface. On the left is a dark sidebar with navigation links: Home, SQL Worksheet (active), My Session, Schema, Quick SQL, My Scripts, My Tutorials, and Code Library. The main area is titled 'SQL Worksheet' and contains a query editor with the following SQL code:

```
1 SELECT employee_id,job_id
2 FROM employees
3 INTERSECT
4 SELECT employee_id,job_id
5 FROM employees;
```

Below the editor, the results of the query are displayed in a table with two columns: EMPLOYEE_ID and JOB_ID. The table contains 18 rows of data. At the bottom of the interface, there is a footer with copyright information and a 'Run' button.

EMPLOYEE_ID	JOB_ID
100	AD_PRES
101	AD_VP
102	AD_VP
103	IT_PROG
104	IT_PROG
107	IT_PROG
124	ST_MAN
141	ST_CLERK
142	ST_CLERK
143	ST_CLERK
144	ST_CLERK
149	SA_MAN
174	SA_REP
176	SA_REP
178	SA_REP
200	AD_ASST

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4. Display the country Id and the name of the countries that have no departments located in them, using SET operators.

Query:

```
SELECT COUNTRY_ID, COUNTRY_NAME
FROM HR.COUNTRIES
MINUS
SELECT COUNTRY_ID, COUNTRY_NAME
FROM HR.COUNTRIES
NATURAL JOIN HR.LOCATIONS
NATURAL JOIN HR.DEPARTMENTS
```

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SQL Worksheet

1 SELECT COUNTRY_ID, COUNTRY_NAME
2 FROM HR.COUNTRIES
3 MINUS
4 SELECT COUNTRY_ID, COUNTRY_NAME
5 FROM HR.COUNTRIES
6 NATURAL JOIN HR.LOCATIONS
7 NATURAL JOIN HR.DEPARTMENTS
8

COUNTRY_ID	COUNTRY_NAME
AR	Argentina
AU	Australia
BE	Belgium
BR	Brazil
CH	Switzerland
CN	China
DK	Denmark
EG	Egypt
FR	France
IL	Israel
IN	India
IT	Italy
JP	Japan
KW	Kuwait

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SQL Worksheet

1 SELECT COUNTRY_ID, COUNTRY_NAME
2 FROM HR.COUNTRIES
3 MINUS
4 SELECT COUNTRY_ID, COUNTRY_NAME
5 FROM HR.COUNTRIES
6 NATURAL JOIN HR.LOCATIONS
7 NATURAL JOIN HR.DEPARTMENTS
8

CN	China
DK	Denmark
EG	Egypt
FR	France
IL	Israel
IN	India
IT	Italy
JP	Japan
KW	Kuwait
ML	Malaysia
MX	Mexico
NG	Nigeria
NL	Netherlands
SG	Singapore
ZH	Zambia
ZW	Zimbabwe

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Clear Find Actions Save Run

5. Write compound query that lists the following:

a) Last names and department ID of all the employees from the EMPLOYEES table, regardless of whether or not they belong to any department or not.

b) Department ID and department name of all the departments from DEPARTMENTS table, regardless of whether or not they have employees working in them.

Query:

```
SELECT last_name, department_id, TO_CHAR(null)
FROM employees
UNION
SELECT TO_CHAR(null), department_id, department_name
FROM departments
```

SQL Worksheet

```
1 SELECT last_name, department_id, TO_CHAR(null)
2 FROM employees
3 UNION
4 SELECT TO_CHAR(null), department_id, department_name
5 FROM departments
6
```

LAST_NAME	DEPARTMENT_ID	TO_CHAR(NULL)
Abel	80	-
Davies	50	-
De Haan	90	-
Ernst	60	-
Fay	20	-
Gietz	110	-
Grant	80	-
Hartstein	20	-
Higgins	110	-
Hunold	60	-
Kochhar	90	-
Lorentz	60	-
Matos	50	-
Mourgos	50	-
Rajs	50	-
Taylor	80	-
Vargas	50	-
Whalen	10	-
Zlotkey	80	-
king	90	-
-	10	Administration
-	20	Marketing
-	50	Shipping
-	60	IT
-	80	Sales
-	90	Executive
-	110	Accounting
-	190	Contracting

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SQL Worksheet

```
1 SELECT last_name, department_id, TO_CHAR(null)
2 FROM employees
3 UNION
4 SELECT TO_CHAR(null), department_id, department_name
5 FROM departments
6
```

LAST_NAME	DEPARTMENT_ID	TO_CHAR(NULL)
Matos	50	-
Mourgos	50	-
Rajs	50	-
Taylor	80	-
Vargas	50	-
Whalen	10	-
Zlotkey	80	-
king	90	-
-	10	Administration
-	20	Marketing
-	50	Shipping
-	60	IT
-	80	Sales
-	90	Executive
-	110	Accounting
-	190	Contracting

- Alter the session to set the NLS_DATE_FORMAT to DD_MON_YYYY HH24: MI: SS.

Query:

```
ALTER SESSION SET NLS_DATE_FORMAT = 'DD-MON-YYYY  
HH24:MI:SS';
```

The screenshot shows the SQL Worksheet interface. The left sidebar contains navigation links: Home, SQL Worksheet (selected), My Session, Schema, Quick SQL, My Scripts, My Tutorials, and Code Library. The main area displays the SQL query: `ALTER SESSION SET NLS_DATE_FORMAT = 'DD-MON-YYYY HH24:MI:SS';`. Below the query editor, a message states "Statement processed." The bottom of the interface shows the copyright notice: "© 2022 Oracle - Live SQL 22.1.3, running Oracle Database 19c Enterprise Edition - 19.8.0.0.0 - Database Documentation - Ask Tom - Dev Gym".

- Write a query to display the DBTIMEZONE and SESSIONTIMEZONE.

Query:

```
SELECT DBTIMEZONE, SESSIONTIMEZONE  
FROM DUAL
```

The screenshot shows the SQL Worksheet interface. The left sidebar contains navigation links: Home, SQL Worksheet (selected), My Session, Schema, Quick SQL, My Scripts, My Tutorials, and Code Library. The main area displays the SQL query: `SELECT DBTIMEZONE, SESSIONTIMEZONE FROM DUAL`. Below the query editor, the results are displayed in a table:

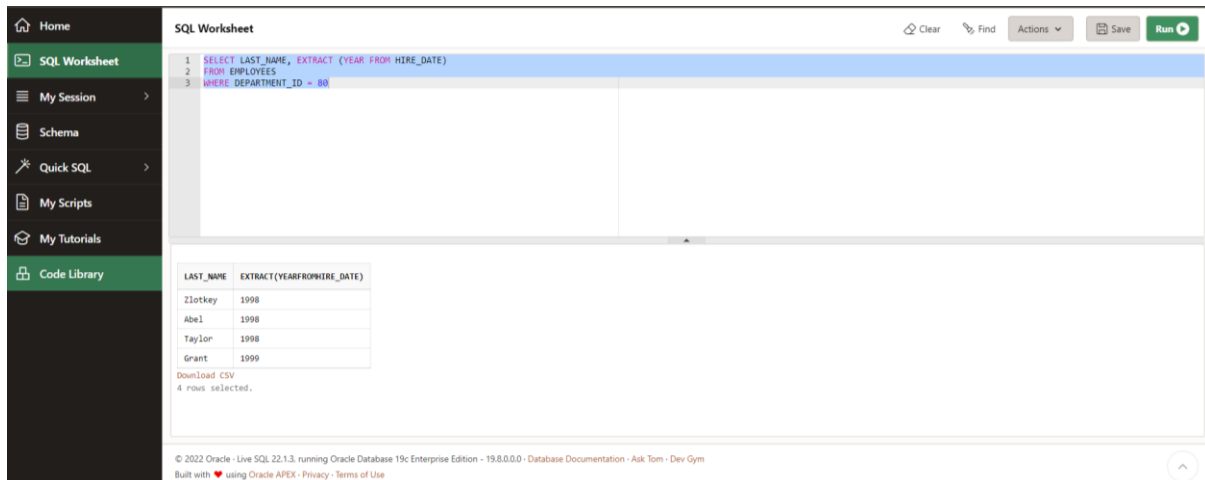
DBTIMEZONE	SESSIONTIMEZONE
+08:00	US/Pacific

Below the table, there is a link to "Download CSV". The bottom of the interface shows the copyright notice: "© 2022 Oracle - Live SQL 22.1.3, running Oracle Database 19c Enterprise Edition - 19.8.0.0.0 - Database Documentation - Ask Tom - Dev Gym".

8. Write a query to extract the YEAR from HIRE_DATE column of the EMPLOYEES table for those employees who work in department 80.

Query:

```
SELECT LAST_NAME, EXTRACT (YEAR FROM HIRE_DATE)
FROM EMPLOYEES
WHERE DEPARTMENT_ID = 80
```



The screenshot shows the SQL Worksheet interface with the query executed. The results are displayed in a table with two columns: LAST_NAME and EXTRACT(YEAR FROM HIRE_DATE). The table contains four rows of data. Below the table, there is a 'Download CSV' link and a message '4 rows selected.'.

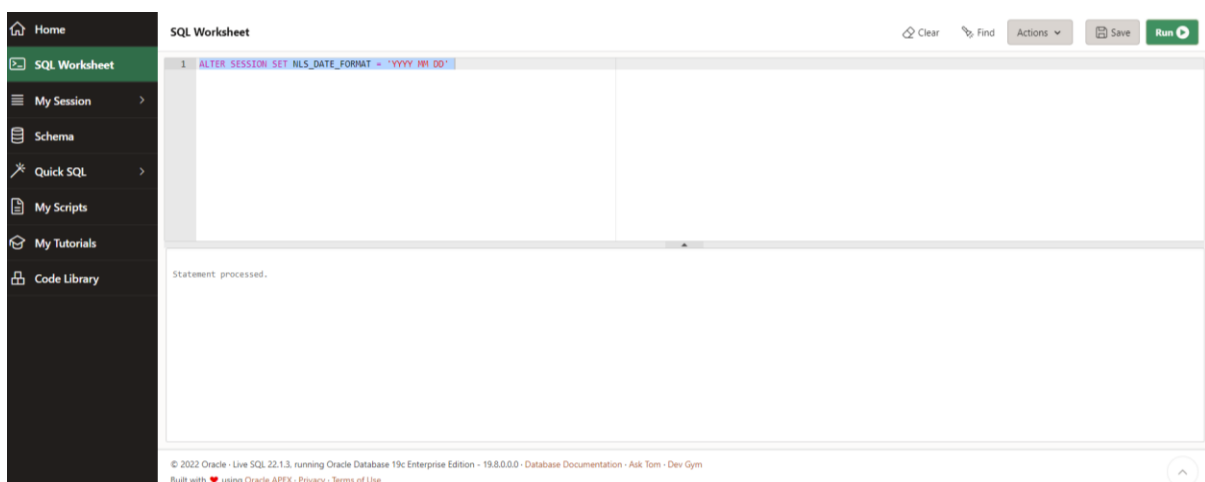
LAST_NAME	EXTRACT(YEAR FROM HIRE_DATE)
Zlotkey	1998
Abel	1998
Taylor	1998
Grant	1999

Download CSV
4 rows selected.

9. Alter the session to set the NLS_DATE_FORMAT to DD_MON_YYYY.

Query:

```
ALTER SESSION SET NLS_DATE_FORMAT = 'YYYY MM DD'
```



The screenshot shows the SQL Worksheet interface with the query 'ALTER SESSION SET NLS_DATE_FORMAT = 'YYYY MM DD'' entered. The interface shows the query in the editor and a message 'Statement processed.' below it.