

ASSIGNMENT – 4

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(1) Delete dupes in place from a table.

EMP TABLE:

The screenshot shows the Oracle SQL Developer interface with the 'Assignment3.sql' script executed. The 'Query Result' tab displays 13 rows of data from the 'emp' table. The data includes employee IDs, names, jobs, managers, hire dates, salaries, commissions, and department numbers. Notable duplicates include employee 8 (Frank Wilson) and employee 10 (Heather Evans), each appearing twice with identical details.

EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO
1	John Doe	Manager	(null)	10-JAN-22	5000	(null)	10
2	Jane Smith	Manager	(null)	15-FEB-22	5200	(null)	10
3	Alice Johnson	Clerk	2	20-MAR-22	2000	(null)	20
4	Bob Williams	Clerk	2	25-APR-22	2100	(null)	20
5	Eve Brown	Analyst	1	10-MAY-22	6000	(null)	30
6	Charlie Davis	Salesman	4	05-JUN-22	3000	500	30
7	David Lee	Salesman	4	10-JUL-22	3100	500	30
8	Frank Wilson	Clerk	3	15-AUG-22	2200	(null)	20
9	Grace Taylor	Manager	(null)	20-SEP-22	5300	(null)	10
10	Heather Evans	Analyst	1	25-OCT-22	6100	(null)	30
11	8 Frank Wilson	Clerk	3	15-AUG-22	2200	(null)	20
12	9 Grace Taylor	Manager	(null)	20-SEP-22	5300	(null)	10
13	10 Heather Evans	Analyst	1	25-OCT-22	6100	(null)	30

Query to delete duplicates:

The screenshot shows the Oracle SQL Developer interface with the 'Assignment3.sql' script executed. The 'Query Result' tab displays the output of the DELETE query, indicating that the task was completed successfully and 3 rows were deleted.

```
commit;

DELETE FROM emp
WHERE ROWID NOT IN (
  SELECT MIN(ROWID)
  FROM emp
  GROUP BY ename, deptno, empno
);
```

Commit complete.
3 rows deleted.

(2) Find the 2nd occurrence position after any input string.

The screenshot shows the Oracle SQL Developer interface. The left pane displays the 'Connections' tree with 'admin' selected. The main workspace is titled 'Assignment3.sql' and shows a SQL query in the 'Worksheet' tab. The query is:

```
SELECT INSTR('the position of the 2nd occurrence of a substring in a string using SQL', 'the', 1, 2) AS position_of_2nd_occurrence
FROM DUAL
WHERE INSTR('the position of the 2nd occurrence of a substring in a string using SQL', 'the', 1, 2) > 0;
```

The 'Query Result' tab shows the execution results:

POSITION_OF_2ND_OCCURRENCE
17

The status bar indicates 'All Rows Fetched: 1 in 0.106 seconds'.

(3) Print number in words (eg:123 should display one hundred twenty-three)

The screenshot shows the Oracle SQL Developer interface. The left pane displays the 'Connections' tree with 'admin' selected. The main workspace is titled 'Assignment3.sql' and shows a SQL query in the 'Worksheet' tab. The query is:

```
SELECT TO_CHAR (TO_DATE (789, 'j'), 'jsp') FROM DUAL;
```

The 'Query Result' tab shows the execution results:

TO_CHAR(TO_DATE(789,'J'),'JSP')
1 seven hundred eighty-nine

The status bar indicates 'All Rows Fetched: 1 in 0.078 seconds'.

(4) Find the top 5 selling products without using analytical functions from SH schema (Sales History)

The screenshot shows the Oracle SQL Developer interface. On the left, the 'Database Connections' pane lists several connections, including 'neudemo'. The main window is titled 'Assignment3.sql' and shows a SQL query in the 'Query Builder' tab. The query is as follows:

```
Select * from sh.sales order by prod_id;

SELECT prod_id, SUM(quantity_sold) AS total_quantity_sold
FROM sh.sales
GROUP BY prod_id
ORDER BY total_quantity_sold DESC
FETCH FIRST 5 ROWS ONLY;
```

Below the query editor, the 'Query Result' tab displays the results of the query. It shows a table with two columns: 'PROD_ID' and 'TOTAL_QUANTITY_SOLD'. The results are as follows:

PROD_ID	TOTAL_QUANTITY_SOLD
1	29282
2	27755
3	27114
4	23108
5	22768

DDL SCRIPT:

--Question 1:

```
CREATE TABLE emp (  
    empno INT,  
    ename VARCHAR(50),  
    job VARCHAR(50),  
    mgr INT,  
    hiredate DATE,  
    sal INT,  
    comm INT,  
    deptno INT  
);
```

-- Insert 13 rows into the "emptable" with 3 duplicate values

```
INSERT INTO emp (empno, ename, job, mgr, hiredate, sal, comm, deptno)  
VALUES (1, 'John Doe', 'Manager', NULL, TO_DATE('2022-01-10', 'YYYY-MM-DD'), 5000, NULL, 10);
```

```
INSERT INTO emp (empno, ename, job, mgr, hiredate, sal, comm, deptno)  
VALUES (2, 'Jane Smith', 'Manager', NULL, TO_DATE('2022-02-15', 'YYYY-MM-DD'), 5200, NULL, 10);
```

```
INSERT INTO emp (empno, ename, job, mgr, hiredate, sal, comm, deptno)  
VALUES (3, 'Alice Johnson', 'Clerk', 2, TO_DATE('2022-03-20', 'YYYY-MM-DD'), 2000, NULL, 20);
```

```
INSERT INTO emp (empno, ename, job, mgr, hiredate, sal, comm, deptno)  
VALUES (4, 'Bob Williams', 'Clerk', 2, TO_DATE('2022-04-25', 'YYYY-MM-DD'), 2100, NULL, 20);
```

```
INSERT INTO emp (empno, ename, job, mgr, hiredate, sal, comm, deptno)  
VALUES (5, 'Eve Brown', 'Analyst', 1, TO_DATE('2022-05-30', 'YYYY-MM-DD'), 6000, NULL, 30);
```

```
INSERT INTO emp (empno, ename, job, mgr, hiredate, sal, comm, deptno)  
VALUES (6, 'Charlie Davis', 'Salesman', 4, TO_DATE('2022-06-05', 'YYYY-MM-DD'), 3000, 500, 30);
```

```
INSERT INTO emp(empno, ename, job, mgr, hiredate, sal, comm, deptno)  
VALUES (7, 'David Lee', 'Salesman', 4, TO_DATE('2022-07-10', 'YYYY-MM-DD'), 3100, 500, 30);
```

```
INSERT INTO emp(empno, ename, job, mgr, hiredate, sal, comm, deptno)  
VALUES (8, 'Frank Wilson', 'Clerk', 3, TO_DATE('2022-08-15', 'YYYY-MM-DD'), 2200, NULL, 20);
```

```
INSERT INTO emp (empno, ename, job, mgr, hiredate, sal, comm, deptno)  
VALUES (9, 'Grace Taylor', 'Manager', NULL, TO_DATE('2022-09-20', 'YYYY-MM-DD'), 5300, NULL, 10);
```

```
INSERT INTO emp(empno, ename, job, mgr, hiredate, sal, comm, deptno)  
VALUES (10, 'Heather Evans', 'Analyst', 1, TO_DATE('2022-10-25', 'YYYY-MM-DD'), 6100, NULL, 30);
```

```
INSERT INTO emp(empno, ename, job, mgr, hiredate, sal, comm, deptno)  
VALUES (8, 'Frank Wilson', 'Clerk', 3, TO_DATE('2022-08-15', 'YYYY-MM-DD'), 2200, NULL, 20);
```

```
INSERT INTO emp (empno, ename, job, mgr, hiredate, sal, comm, deptno)  
VALUES (9, 'Grace Taylor', 'Manager', NULL, TO_DATE('2022-09-20', 'YYYY-MM-DD'), 5300, NULL, 10);
```

```
INSERT INTO emp (empno, ename, job, mgr, hiredate, sal, comm, deptno)
VALUES (10, 'Heather Evans', 'Analyst', 1, TO_DATE('2022-10-25', 'YYYY-MM-DD'), 6100, NULL, 30);
```

```
select * from emp;
```

```
DELETE FROM emp
WHERE ROWID NOT IN (
    SELECT MIN(ROWID)
    FROM emp
    GROUP BY ename, deptno, empno
);
```

--Question 2:

```
SELECT INSTR('the position of the 2nd occurrence of a substring in a string using SQL', 'the', 1, 2) AS
position_of_2nd_occurrence
FROM DUAL
WHERE INSTR('the position of the 2nd occurrence of a substring in a string using SQL', 'the', 1, 2) > 0;
```

--Question 3:

```
SELECT TO_CHAR(TO_DATE(789, 'j'), 'jsp') FROM DUAL;
```

--Question 4

```
Select * from sh.sales order by prod_id;
```

```
SELECT prod_id, SUM(quantity_sold) AS total_quantity_sold
FROM sh.sales
GROUP BY prod_id
ORDER BY total_quantity_sold DESC
FETCH FIRST 5 ROWS ONLY;
```