

Sathish Yellanki

Institute of Software Solutions

Announcing A New Batch For Performance Tuning

Date : 22nd June 2015

Time : 12.30 P.M.

Registrations Started

Contact Details

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SQL> cl scr

SQL> SELECT Ename, Deptno, Job, Sal, Comm

- 2 FROM Emp
- 3 WHERE Job = 'CLERK';

ENAME	DEPTNO	JOB	SAL	COMM
JAMES	30	CLERK	950	
SMITH	20	CLERK	800	
ADAMS	20	CLERK	1100	
MILLER	10	CLERK	1300	

SQL> UPDATE EMP

- 2 SET Comm = NULL
- 3 WHERE Job = 'CLERK';
- 4 rows updated.

SQL> SELECT Ename, Deptno, Job, Sal, Comm

- 2 FROM Emp
- 3 WHERE Job = 'CLERK';

SAL	COMM
950	
800	
1100	
1300	
	950 800 1100

SQL> SELECT Ename, Deptno, Job, Sal, Comm
2 FROM Emp;

DEPTNO	JOB	SAL	COMM
10	PRESIDENT	5000	
30	MANAGER	2850	
10	MANAGER	2450	
20	MANAGER	2975	
30	SALESMAN	1250	1400
30	SALESMAN	1600	300
30	SALESMAN	1500	0
30	CLERK	950	
30	SALESMAN	1250	500
20	ANALYST	3000	
20	CLERK	800	
20	ANALYST	3000	
20	CLERK	1100	
10	CLERK	1300	
	10 30 10 20 30 30 30 30 30 20 20 20	30 MANAGER 10 MANAGER 20 MANAGER 30 SALESMAN 30 SALESMAN 30 CLERK 30 SALESMAN 20 ANALYST 20 CLERK 20 ANALYST 20 CLERK	10 PRESIDENT 5000 30 MANAGER 2850 10 MANAGER 2450 20 MANAGER 2975 30 SALESMAN 1250 30 SALESMAN 1600 30 SALESMAN 1500 30 CLERK 950 30 SALESMAN 1250 20 ANALYST 3000 20 CLERK 800 20 ANALYST 3000 20 CLERK 1100

14 rows selected.

SQL> UPDATE Emp

2 SET Sal = NULL

14 rows updated.

SQL> SELECT Ename, Deptno, Job, Sal, Comm
2 FROM Emp;

ENAME	DEPTNO	JOB	SAL	COMM
KING	10	PRESIDENT		
BLAKE	30	MANAGER		
CLARK	10	MANAGER		
JONES	20	MANAGER		
MARTIN	30	SALESMAN		1400
ALLEN	30	SALESMAN		300
TURNER	30	SALESMAN		0
JAMES	30	CLERK		
WARD	30	SALESMAN		500
FORD	20	ANALYST		
SMITH	20	CLERK		
SCOTT	20	ANALYST		
ADAMS	20	CLERK		
MILLER	10	CLERK		

14 rows selected.

SQL> ROLLBACK;

Rollback complete.

SQL> SELECT Ename, Deptno, Job, Sal, Comm
2 FROM Emp;

ENAME	DEPTNO	JOB	SAL	COMM
KING	10	PRESIDENT	5000	
BLAKE	30	MANAGER	2850	
CLARK	10	MANAGER	2450	
JONES	20	MANAGER	2975	
MARTIN	30	SALESMAN	1250	1400
ALLEN	30	SALESMAN	1600	300
TURNER	30	SALESMAN	1500	0
JAMES	30	CLERK	950	
WARD	30	SALESMAN	1250	500
FORD	20	ANALYST	3000	
SMITH	20	CLERK	800	
SCOTT	20	ANALYST	3000	
ADAMS	20	CLERK	1100	
MILLER	10	CLERK	1300	

14 rows selected.

SQL> cl scr

```
SQL> ROLLBACK;
Rollback complete.
SQL> cl scr
SQL> SELECT * FROM Emp WHERE Ename = 'ALLEN';;
SELECT * FROM Emp WHERE Ename = 'ALLEN';
ERROR at line 1:
ORA-00911: invalid character
SQL> ED
Wrote file afiedt.buf
 1* SELECT * FROM Emp WHERE Ename = 'ALLEN'
SQL> /
   EMPNO ENAME
                JOB
                               MGR HIREDATE
                                              SAL
COMM DEPTNO
    7499 ALLEN SALESMAN 7698 20-FEB-81 1600
300 30
SQL> UPDATE Emp
 2 SET
   Job = 'MANAGER',
 4 Sal = 2500,
 5 Deptno = 10
 6 WHERE Ename = 'ALLEN';
1 row updated.
SQL> SELECT * FROM Emp WHERE Ename = 'ALLEN';
   EMPNO ENAME
               JOB
                              MGR HIREDATE
                                               SAL
COMM DEPTNO
7499 ALLEN MANAGER 7698 20-FEB-81 2500
300
      10
SQL> ROLLBACK;
Rollback complete.
SQL> SELECT * FROM Emp WHERE Ename = 'ALLEN';
               JOB
   EMPNO ENAME
                              MGR HIREDATE
                                           SAL
COMM DEPTNO
```

```
7499 ALLEN SALESMAN 7698 20-FEB-81 1600
300
   30
SQL> SELECT * FROM Emp WHERE Ename = 'BLAKE';
   EMPNO ENAME
                 JOB
                                MGR HIREDATE
                                                  SAL
COMM DEPTNO
     7698 BLAKE
              MANAGER 7839 01-MAY-81 2850
30
SQL> UPDATE Emp
 2 SET
 3 Job = 'ANALYST',
 4 Sal = Sal + 1000
 5 WHERE Ename = 'BLAKE';
1 row updated.
SQL> SELECT * FROM Emp WHERE Ename = 'BLAKE';
   EMPNO ENAME JOB
                                MGR HIREDATE
                                              SAL
COMM DEPTNO
    7698 BLAKE ANALYST 7839 01-MAY-81 3850
30
SQL> ROLLBACK;
Rollback complete.
SQL> cl scr
SQL> UPDATE Emp
 2 SET Deptno =
 3 (
 4 SELECT Deptno
 5 FROM Emp
 6 WHERE Empno = 7788
    )
 8 WHERE Job =
 9
 10 SELECT Job
 11 FROM Emp
12 WHERE Empno = 7788
13 );
2 rows updated.
SQL> cl scr
SQL> ROLLBACK;
```

```
Rollback complete.
SQL> UPDATE Emp
  2 SET
  3 Job =
  4 (
  5 SELECT Job, Deptno
  6 FROM Emp
 7
    WHERE Empno = 7499
 8
    ),
 9 Deptno =
 10
 11 SELECT Deptno
 12 FROM Emp
 13 WHERE Empno = 7499
 14
    )
 15 WHERE Empno = 7698;
     SELECT Job, Deptno
ERROR at line 5:
ORA-00913: too many values
SQL> ED
Wrote file afiedt.buf
 1 UPDATE Emp
  2 SET
  3 Job =
  4 (
  5 SELECT Job
  6 FROM Emp
 7 WHERE Empno = 7499
 8
    ),
 9 Deptno =
 10
 11 SELECT Deptno
 12 FROM Emp
 13
    WHERE Empno = 7499
 14
     )
 15* WHERE Empno = 7698
SQL> /
1 row updated.
```

SQL> UPDATE Emp 2 SET 3

FROM Emp

(

6

7

8

(Job, Deptno) =

5 SELECT Job, Deptno

WHERE Empno = 7499

```
9 WHERE Empno = 7698;
1 row updated.
SQL> ROLLBACK;
Rollback complete.
SQL> cl scr
SQL> UPDATE Emp
  2 SET Sal = Sal * 1.10
  3 WHERE Deptno =
  4
    (
  5
    SELECT Deptno
  6 FROM Dept
  7 WHERE Loc = 'CHICAGO'
  8
     );
6 rows updated.
SQL> ROLLBACK;
Rollback complete.
SQL> cl scr
SQL> UPDATE Emp E1
  2 SET Deptno =
  3
    (
  4 SELECT Deptno
  5 FROM Dept
    WHERE Loc = 'DALLAS'
  6
  7
     ),
  8 	ext{ (Sal, Comm)} =
  9
 10 SELECT
 11
    1.1 * AVG(Sal),
 12 1.5 * AVG(Comm)
 13
    FROM Emp E2
 14
     WHERE E1.Deptno = E2.Deptno
 15
     )
 16 WHERE Deptno IN
 17
 18
     SELECT Deptno
 19
     FROM Dept
 20
     WHERE Loc = 'NEW YORK' OR Loc = 'BOSTON'
 21
     );
3 rows updated.
SQL> cl scr
SQL> ROLLBACK;
```

```
Rollback complete.
SOL> cl scr
SQL> CREATE TABLE SampDEF
  3
     SampID NUMBER(2) DEFAULT 99,
     SampName VARCHAR2(10) DEFAULT 'NOT GIVEN',
     SampDate DATE DEFAULT SYSDATE
  6);
Table created.
SQL> INSERT INTO SampDEF
  2 VALUES(1, 'SAMPLE01', '01-JUN-15');
1 row created.
SQL> INSERT INTO SampDEF
  2 VALUES(2, 'SAMPLE02', '02-JUN-15');
1 row created.
SQL> INSERT INTO SampDEF
  2 VALUES(3, 'SAMPLE03', '03-JUN-15');
1 row created.
SQL> SELECT * FROm SampDEF;
   SAMPID SAMPNAME SAMPDATE
_____
        1 SAMPLE01 01-JUN-15
        2 SAMPLE02 02-JUN-15
        3 SAMPLE03 03-JUN-15
SQL> UPDATE SampDEF
  2 SET SampID = DEFAULT
  3 WHERE SampID = 3;
1 row updated.
SQL> SELECT * FROm SampDEF;
   SAMPID SAMPNAME SAMPDATE
        1 SAMPLE01 01-JUN-15
       2 SAMPLE02 02-JUN-15
99 SAMPLE03 03-JUN-15
SQL> UPDATE SampDEF
  2 SET SampName = DEFAULT
  3 WHERE SampID = 2;
```

```
1 row updated.
SQL> SELECT * FROm SampDEF;
   SAMPID SAMPNAME SAMPDATE
       1 SAMPLE01 01-JUN-15
        2 NOT GIVEN 02-JUN-15
       99 SAMPLE03 03-JUN-15
SQL> UPDATE SampDEF
  2 SET SampDate = DEFAULT
  3 WHERE SampID = 1;
1 row updated.
SQL> SELECT * FROm SampDEF;
   SAMPID SAMPNAME SAMPDATE
        1 SAMPLE01
                    15-JUN-15
        2 NOT GIVEN 02-JUN-15
       99 SAMPLE03
                     03-JUN-15
SQL> INSERT INTO SampDEF
  2 VALUES(NULL, NULL, NULL);
1 row created.
SQL> INSERT INTO SampDEF
  2 VALUES(DEFAULT, DEFAULT, DEFAULT);
1 row created.
SQL> SELECT * FROm SampDEF;
   SAMPID SAMPNAME SAMPDATE
        1 SAMPLE01 15-JUN-15
        2 NOT GIVEN 02-JUN-15
       99 SAMPLE03 03-JUN-15
       99 NOT GIVEN 15-JUN-15
SQL> cl scr
SQL> ROLLBACK;
Rollback complete.
```

SQL> cl scr

SQL> SELECT Deptno, SUM(Sal)

- 2 FROM Emp
- 3 GROUP BY Deptno;

SUM(SAL)	DEPTNO
9400	30
10875	20
8750	10

SQL> UPDATE Emp

- 2 SET Sal = Sal + 1000
- 3 WHERE Deptno = 10;
- 3 rows updated.

SQL> rollback;

Rollback complete.

SQL> cl scr

SQL> SELECT Deptno, SUM(Sal)

- 2 FROM Emp
- 3 GROUP BY Deptno;

SUM(SAL)	DEPTNO
9400	30
10875	20
8750	10

SQL> VARIABLE BDept10SalSum NUMBER

SQL> UPDATE Emp

- 2 SET Sal = Sal + 1000
- 3 WHERE Deptno = 10
- 4 RETURNING SUM(Sal) INTO :BDept10SalSum;
- 3 rows updated.

SQL> PRINT BDept10SalSum

BDEPT10SALSUM

11750

SQL> SELECT :BDept10SalSum FROM DUAL;

:BDEPT10SALSUM

11750

11750

SQL> VARIABLE BDept10SalAVG NUMBER

SQL> UPDATE Emp

2 SET Sal = Sal + 1000

```
3 WHERE Deptno = 10
  4 RETURNING SUM(Sal), AVG(Sal) INTO :BDept10SalSum, :BDept10SalAVG;
3 rows updated.
SQL> PRINT BDept10SalSum
BDEPT10SALSUM
       14750
SQL> PRINT BDept10SalAVG
BDEPT10SALAVG
_____
  4916.66667
SQL> cl scr
SQL> ROLLBACK;
Rollback complete.
SQL> cl scr
SQL> CREATE TABLE MyBonus
  2 (
  3 Empno NUMBER,
  4 Bonus NUMBER DEFAULT 100
  5);
Table created.
SQL> SELECT * FROM MyBonus;
no rows selected
SQL> INSERT INTO MyBonus(Empno)
 2 (
  3 SELECT E.Empno
  4 FROM Emp E
  5 WHERE Job = 'SALESMAN'
  6);
4 rows created.
SQL> SELECT * FROM MyBonus;
    EMPNO BONUS
     7654 100
     7499
               100
     7844 100
7521 100
```

```
SQL> MERGE INTO MyBonus B
 2 USING
  3
    (
 4 SELECT Empno, Sal, Deptno
  5 FROM Emp
 6 WHERE Deptno = 30
 7 ) S
 8 ON
 9
    (
 10 B.Empno = S.Empno
 11
    )
 12 WHEN MATCHED THEN
 13 UPDATE
 14 SET B.Bonus = B.Bonus + S.Sal * 0.1
 15 DELETE
 16 WHERE (S.Sal > 4000)
 17 WHEN NOT MATCHED THEN
 18 INSERT(B.Empno, B.Bonus)
 19 VALUES(S.Empno, S.Sal * 0.1)
 20 WHERE(S.Sal <= 4000);</pre>
```

6 rows merged.

SQL> SELECT * FROM MyBonus;

BONUS	EMPNO
225	7654
260	7499
250	7844
225	7521
285	7698
95	7900

6 rows selected.

SQL> SPOOL OFF



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