```
SQL> cl scr
SOL> SELECT ColumnName
  2 FROM TableName
  3 WHERE ColumnName = Value -- COMPONENT QUERY 01
    <SET OPERATOR>
  5 SELECT ColumnName
  6 FROM TableName
  7 WHERE ColumnName = Value -- COMPONENT QUERY 02
SQL> SELECT Ename, Dname
  2 FROM Emp, Dept
  3 WHERE Emp.Deptno = Dept.Deptno;
ENAME
          DNAME
KING
          ACCOUNTING
         SALES
BLAKE
CLARK
         ACCOUNTING
JONES
         RESEARCH
MARTIN
         SALES
         SALES
ALLEN
TURNER
         SALES
JAMES
         SALES
WARD
          SALES
FORD
          RESEARCH
          RESEARCH
SMITH
SCOTT
          RESEARCH
          RESEARCH
ADAMS
MILLER
          ACCOUNTING
14 rows selected.
SQL> SELECT Ename
  2 FROM Emp
  3 UNION
   SELECT Dname
  5
   FROM Dept;
ENAME
ACCOUNTING
ADAMS
ALLEN
BLAKE
CLARK
FORD
```

SkyEss Techno Solutions Pvt. Ltd.

Flat No. 201, II Floor, Abhilash Towers, BK Guda, Hyderabad – 500 038 Ph No. +9140 23710047, 64640047, Mobile: 9985798869

Contact For Courses And Training in

Oracle Developer Suite 10g(D2K), Oracle Apps R12, Live Projects in SQL and PL/SQL, Data Modeling, Linux/Unix

```
JAMES
JONES
KING
MARTIN
MILLER
OPERATIONS
RESEARCH
SALES
SCOTT
SMITH
TURNER
ENAME
WARD
18 rows selected.
SQL> SELECT Ename, Job
  2 FROM Emp
  3 UNION
  4 SELECT Dname
  5 FROM Dept;
SELECT Ename, Job
ERROR at line 1:
ORA-01789: query block has incorrect number of result columns
SOL> ED
Wrote file afiedt.buf
  1 SELECT Ename, Job
  2 FROM Emp
  3 UNION
  4 SELECT Dname, Deptno
  5* FROM Dept
SQL> /
SELECT Ename, Job
ERROR at line 1:
ORA-01790: expression must have same datatype as corresponding expression
SOL> ED
Wrote file afiedt.buf
```

SkyEss Techno Solutions Pvt. Ltd.

Flat No. 201, II Floor, Abhilash Towers, BK Guda, Hyderabad – 500 038 Ph No. +9140 23710047, 64640047, Mobile: 9985798869

Contact For Courses And Training in

Oracle Developer Suite 10g(D2K), Oracle Apps R12, Live Projects in SQL and PL/SQL, Data Modeling, Linux/Unix

```
.....
 1 SELECT Ename, Job
 2 FROM Emp
 3 UNION
 4 SELECT Dname, TO_CHAR(Deptno)
 5* FROM Dept
SOL> /
ENAME
ACCOUNTING
           CLERK
ADAMS
ALLEN
           SALESMAN
BLAKE
           MANAGER
CLARK
            MANAGER
FORD
           ANALYST
JAMES
           CLERK
JONES
           MANAGER
KING
            PRESIDENT
MARTIN
           SALESMAN
            CLERK
MILLER
            40
OPERATIONS
RESEARCH
             20
SALES
            30
SCOTT
           ANALYST
            CLERK
SMITH
TURNER
            SALESMAN
ENAME
WARD
            SALESMAN
18 rows selected.
SQL> cl scr
SQL> ED
Wrote file afiedt.buf
   SELECT Ename
 2 FROM Emp
   ORDER BY Ename
    UNION
 5 SELECT Dname
 6* FROM Dept
SOL> /
UNION
```

SkyEss Techno Solutions Pvt. Ltd.

Flat No. 201, II Floor, Abhilash Towers, BK Guda, Hyderabad – 500 038 Ph No. +9140 23710047, 64640047, Mobile: 9985798869

Contact For Courses And Training in

Oracle Developer Suite 10g(D2K), Oracle Apps R12, Live Projects in SQL and PL/SQL, Data Modeling, Linux/Unix

```
ERROR at line 4:
ORA-00933: SQL command not properly ended
SOL> ED
Wrote file afiedt.buf
  1 SELECT Ename
  2 FROM Emp
  3 UNION
  4 SELECT Dname
  5 FROM Dept
  6* ORDER BY Dname
SQL> /
ORDER BY Dname
ERROR at line 6:
ORA-00904: "DNAME": invalid identifier
SQL> ED
Wrote file afiedt.buf
  1 SELECT Ename
  2 FROM Emp
  3 UNION
  4 SELECT Dname
  5 FROM Dept
  6* ORDER BY Ename
SQL> /
ENAME
ACCOUNTING
ADAMS
ALLEN
BLAKE
CLARK
FORD
JAMES
JONES
KING
MARTIN
MILLER
OPERATIONS
RESEARCH
SALES
```

SkyEss Techno Solutions Pvt. Ltd.

Flat No. 201, II Floor, Abhilash Towers, BK Guda, Hyderabad – 500 038 Ph No. +9140 23710047, 64640047, Mobile: 9985798869

Contact For Courses And Training in

Oracle Developer Suite 10g(D2K), Oracle Apps R12, Live Projects in SQL and PL/SQL, Data Modeling, Linux/Unix

```
SCOTT
SMITH
TURNER
ENAME
WARD
18 rows selected.
SQL> ED
Wrote file afiedt.buf
  2
    SELECT Ename
  3
    FROM Emp
  4
     UNION
  5
      SELECT Dname
  б
    FROM Dept
  7
  8* ORDER BY Ename
SQL> /
ENAME
ACCOUNTING
ADAMS
ALLEN
BLAKE
CLARK
FORD
JAMES
JONES
KING
MARTIN
MILLER
OPERATIONS
RESEARCH
SALES
SCOTT
SMITH
TURNER
ENAME
WARD
```

SkyEss Toshno Solutions Dyt. Ltd

SkyEss Techno Solutions Pvt. Ltd.
Flat No. 201, II Floor, Abhilash Towers, BK Guda, Hyderabad – 500 038

o. 201, 11 Floor, Abiliasii Towers, BK Guda, Hyderabad – 500 0. Ph No. +9140 23710047, 64640047, Mobile: 9985798869

Contact For Courses And Training in

Oracle Developer Suite 10g(D2K), Oracle Apps R12, Live Projects in SQL and PL/SQL, Data Modeling, Linux/Unix

18 rows selected. SOL> ED Wrote file afiedt.buf 1 2 SELECT Ename 3 FROM Emp UNION 4 5 SELECT Dname б FROM Dept 7) 8* ORDER BY Dname SQL> / ORDER BY Dname ERROR at line 8: ORA-00904: "DNAME": invalid identifier SQL> ED Wrote file afiedt.buf 2 SELECT Ename 3 FROM Emp 4 UNION SELECT Dname 5 6 FROM Dept 7 8* ORDER BY 1 SQL> / **ENAME** ACCOUNTING **ADAMS** ALLEN BLAKE CLARK FORD JAMES JONES KING MARTIN MILLER **OPERATIONS**

SkyEss Techno Solutions Pvt. Ltd.

Flat No. 201, II Floor, Abhilash Towers, BK Guda, Hyderabad – 500 038 Ph No. +9140 23710047, 64640047, Mobile: 9985798869

Contact For Courses And Training in

Oracle Developer Suite 10g(D2K), Oracle Apps R12, Live Projects in SQL and PL/SQL, Data Modeling, Linux/Unix

RESEARCH SALES SCOTT SMITH TURNER ENAME WARD 18 rows selected. SQL> cl scr SQL> SET AUTOTRACE ON EXPLAIN SQL> SELECT Job 2 FROM Emp 3 WHERE Deptno = 10 4 UNION 5 SELECT Job 6 FROM Emp 7 WHERE Deptno = 30; JOB CLERK MANAGER PRESIDENT SALESMAN Execution Plan Plan hash value: 3774834881 | Name | Rows | Bytes | Cost (%CPU) | Time 0 | SELECT STATEMENT 9 | 171 | 00:00:01 ▶ 1 | SORT UNIQUE 171 | 00:00:01 UNION-ALL

SkyEss Techno Solutions Pvt. Ltd.

Flat No. 201, II Floor, Abhilash Towers, BK Guda, Hyderabad – 500 038 Ph No. +9140 23710047, 64640047, Mobile: 9985798869

Contact For Courses And Training in

Oracle Developer Suite 10g(D2K), Oracle Apps R12, Live Projects in SQL and PL/SQL, Data Modeling, Linux/Unix

```
| * 3 | TABLE ACCESS FULL | EMP |
00:00:01 |
|* 4 | TABLE ACCESS FULL | EMP | 6 | 114 | 3
00:00:01
Predicate Information (identified by operation id):
  3 - filter("DEPTNO"=10)
  4 - filter("DEPTNO"=30)
Note
____
  - dynamic sampling used for this statement (level=2)
SOL> ED
Wrote file afiedt.buf
 1 SELECT DISTINCT Job
 2 FROM Emp
 3* WHERE Deptno IN(10, 30)
SQL> /
JOB
SALESMAN
CLERK
PRESIDENT
MANAGER
Execution Plan
_____
Plan hash value: 3709190377
      Operation | Name | Rows | Bytes | Cost (%CPU) | Time
   0 | SELECT STATEMENT | 9 | 171 | 4 (25) | 00:00:01
                          9 | 171 | 4 (25) | 00:00:01
   1 | HASH UNIQUE |
```

SkyEss Techno Solutions Pvt. Ltd.

Flat No. 201, II Floor, Abhilash Towers, BK Guda, Hyderabad - 500 038 Ph No. +9140 23710047, 64640047, Mobile: 9985798869

Contact For Courses And Training in

Oracle Developer Suite 10g(D2K), Oracle Apps R12, Live Projects in SQL and PL/SQL, Data Modeling, Linux/Unix

```
TABLE ACCESS FULL EMP 9 171
Predicate Information (identified by operation id):
   2 - filter("DEPTNO"=10 OR "DEPTNO"=30)
Note
   - dynamic sampling used for this statement (level=2)
SQL> ED
Wrote file afiedt.buf
  1 SELECT Job
  2 FROM Emp
  3 WHERE Deptno = 10
  4 UNION ALL
  5 SELECT Job
  6 FROM Emp
  7* WHERE Deptno = 30
SQL> /
JOB
PRESIDENT
MANAGER
CLERK
MANAGER
SALESMAN
SALESMAN
SALESMAN
CLERK
SALESMAN
9 rows selected.
Execution Plan
Plan hash value: 1301082189
                  SkyEss Techno Solutions Pvt. Ltd.
```

Flat No. 201, II Floor, Abhilash Towers, BK Guda, Hyderabad – 500 038 Ph No. +9140 23710047, 64640047, Mobile: 9985798869

Contact For Courses And Training in

Oracle Developer Suite 10g(D2K), Oracle Apps R12, Live Projects in SQL and PL/SQL, Data Modeling, Linux/Unix

I	d 	Operat	ion		Name		Rows		Bytes		Cost	(%	CPU)	Time
 	0	SELECT	STATEMEN	т			9		171		(5	(50)	00:00:01
	1	UNION	1-ALL											1 A
*	2	TABI	LE ACCESS	FULL	EMP		3		57		3	3	(0)	00:00:01
 * 	3	TABI	LE ACCESS	FULL	EMP		6		114		*	3	(0)	00:00:01
 		ate Info	ormation (ident	ified	 bs	oper	 at	ion id		F			
	 2 -	filter("DEPTNO"=	10)		~				-				
Not	e 													
	- d	ynamic s	sampling u	sed f	or th	is	state	me	nt (lev	ze.	1=2)			
SQL	> C	l scr		+	C		>							
SQL Wro		D file afi	edt.buf	X	1									
2 3 4 5 6	F W I S F	NTERSECT ELECT Jo ROM Emp	otno = 10 Ob		₩									
SQL			>											
JOB		2												
CLE	255													
MAN	AGE	K												
Exe	cut	ion Plan	1											

SkyEss Techno Solutions Pvt. Ltd.

Flat No. 201, II Floor, Abhilash Towers, BK Guda, Hyderabad – 500 038 Ph No. +9140 23710047, 64640047, Mobile: 9985798869

Contact For Courses And Training in

Oracle Developer Suite 10g(D2K), Oracle Apps R12, Live Projects in SQL and PL/SQL, Data Modeling, Linux/Unix

Plan hash value: 3689394479 | Name | Rows | Bytes | Cost (%CPU) | Time | Id | Operation | 0 | SELECT STATEMENT | 3 | 171 | 00:00:01 1 | INTERSECTION | | 2 | SORT UNIQUE | 57 3 (25) 00:00:01 |* 3 | TABLE ACCESS FULL | EMP | 3 | (0) 00:00:01 | 4 | SORT UNIQUE | 114 00:00:01 | |* 5 | TABLE ACCESS FULL EMP | 00:00:01 Predicate Information (identified by operation id): 3 - filter("DEPTNO"=10) 5 - filter("DEPTNO"=30) Note - dynamic sampling used for this statement (level=2) SOL> ED Wrote file afiedt.buf 1 SELECT Job 2 FROM Emp 3 WHERE Deptno = 10 4 MINUS 5 SELECT Job 6 FROM Emp 7* WHERE Deptno = 30 SQL> / JOB

SkyEss Techno Solutions Pvt. Ltd.

Flat No. 201, II Floor, Abhilash Towers, BK Guda, Hyderabad – 500 038 Ph No. +9140 23710047, 64640047, Mobile: 9985798869

Contact For Courses And Training in

Oracle Developer Suite 10g(D2K), Oracle Apps R12, Live Projects in SQL and PL/SQL, Data Modeling, Linux/Unix

PRESIDENT Execution Plan _____ Plan hash value: 3686975449 _____ | Id | Operation | Name | Rows | Bytes | Cost (%CPU) | 0 | SELECT STATEMENT | | 171 00:00:01 1 | MINUS 2 | SORT UNIQUE 4 (25) 00:00:01 | * 3 TABLE ACCESS FULL EMP 3 (0) 00:00:01 4 | SORT UNIQUE 114 4 (25) 00:00:01 * 5 | TABLE ACCESS FULL EMP 114 | 3 (0)| 00:00:01 Predicate Information (identified by operation id): 3 - filter("DEPTNO"=10) 5 - filter("DEPTNO"=30) Note - dynamic sampling used for this statement (level=2) SQL> cl scr SQL> ED Wrote file afiedt.buf 1 SELECT Job 2 FROM Emp

SkyEss Techno Solutions Pvt. Ltd.

Flat No. 201, II Floor, Abhilash Towers, BK Guda, Hyderabad – 500 038 Ph No. +9140 23710047, 64640047, Mobile: 9985798869

Contact For Courses And Training in

Oracle Developer Suite 10g(D2K), Oracle Apps R12, Live Projects in SQL and PL/SQL, Data Modeling, Linux/Unix

Follow Me: https://www.facebook.com/satishkumar.yellanki

3 WHERE Deptno = 10

5 SELECT Job 6 FROM Emp 7 WHERE Deptno = 30 8 INTERSECT 9 SELECT Job 10 FROM Emp 11* WHERE Deptno = 20 SQL> / JOB CLERK MANAGER Execution Plan Plan hash value: 3563617024 Id | Operation | Name | Rows | Bytes | Cost (%CPU) | Time 0 | SELECT STATEMENT 266 | 12 (75) | 00:00:01 1 | INTERSECTION 2 | SORT UNIQUE 5 | 266 | 12 (75) | 00:00:01 3 UNION-ALL | * 4 | TABLE ACCESS FULL | EMP | 3 | 57 | 3 (0) 00:00:01 TABLE ACCESS FULL EMP 6 | 114 | |* 5 | 3 (0) 00:00:01 SORT UNIQUE | | 5 | 95 | 6 4 (25) 00:00:01 TABLE ACCESS FULL | EMP | 5 | 95 | 3 (0)| * 7 00:00:01 Predicate Information (identified by operation id):

SkyEss Techno Solutions Pvt. Ltd.

Flat No. 201, II Floor, Abhilash Towers, BK Guda, Hyderabad – 500 038 Ph No. +9140 23710047, 64640047, Mobile: 9985798869

Contact For Courses And Training in

Oracle Developer Suite 10g(D2K), Oracle Apps R12, Live Projects in SQL and PL/SQL, Data Modeling, Linux/Unix

```
.....
  4 - filter("DEPTNO"=10)
  5 - filter("DEPTNO"=30)
  7 - filter("DEPTNO"=20)
Note
  - dynamic sampling used for this statement (level=2)
SQL> ED
Wrote file afiedt.buf
   SELECT Job
 2
 3 FROM Emp
 4 WHERE Deptno = 10
 5 UNION
 6 SELECT Job
 7
   FROM Emp
 8 WHERE Deptno = 30
 9)
10 INTERSECT
11 SELECT Job
12 FROM Emp
13* WHERE Deptno = 20
SQL> /
JOB
CLERK
MANAGER
Execution Plan
Plan hash value: 3563617024
 Id | Operation
                      | Name | Rows | Bytes | Cost (%CPU) | Time
 0 | SELECT STATEMENT | 5 | 266 | 12 (75)|
00:00:01
  1 | INTERSECTION | | |
```

SkyEss Techno Solutions Pvt. Ltd.

Flat No. 201, II Floor, Abhilash Towers, BK Guda, Hyderabad – 500 038 Ph No. +9140 23710047, 64640047, Mobile: 9985798869

Contact For Courses And Training in

Oracle Developer Suite 10g(D2K), Oracle Apps R12, Live Projects in SQL and PL/SQL, Data Modeling, Linux/Unix

```
2 | SORT UNIQUE
                                    266
                                          12 (75)
00:00:01
   3 UNION-ALL
       TABLE ACCESS FULL EMP
| * 4 |
                              3 |
                                    57
                                               (0)
00:00:01
|* 5 |
       TABLE ACCESS FULL EMP
                              6 | 114 |
                                               (0)
00:00:01
6 | SORT UNIQUE
                              5 |
00:00:01
                                               (0)
| * 7 | TABLE ACCESS FULL | EMP | 5 |
                                     95 |
00:00:01
Predicate Information (identified by operation id):
  4 - filter("DEPTNO"=10)
  5 - filter("DEPTNO"=30)
  7 - filter("DEPTNO"=20)
Note
  - dynamic sampling used for this statement (level=2)
SOL> ED
Wrote file afiedt.buf
 1 SELECT Job
 2 FROM Emp
 3 WHERE Deptno = 10
 4 UNION
 5 (
 6 SELECT Job
 7 FROM Emp
 8 WHERE Deptno = 30
 9 INTERSECT
10 SELECT Job
   FROM Emp
11
    WHERE Deptno = 20
 12
13*
SQL> /
JOB
```

SkyEss Techno Solutions Pvt. Ltd.

Flat No. 201, II Floor, Abhilash Towers, BK Guda, Hyderabad – 500 038 Ph No. +9140 23710047, 64640047, Mobile: 9985798869

Contact For Courses And Training in

Oracle Developer Suite 10g(D2K), Oracle Apps R12, Live Projects in SQL and PL/SQL, Data Modeling, Linux/Unix

'

MANAGER PRESIDENT

Execution Plan

Plan hash value: 785578627

 Id	Name	Rows	 E	Bytes	Cost (*CPU)	Time
 0 SELECT STATEMENT 00:00:01		8	8	266	12	(75)	
1 SORT UNIQUE 00:00:01		8	8	266	12	(75)	
2 UNION-ALL TABLE ACCESS FULL				F7	2	(0)	
* 3	EMP		3	57	3	(0)	
 5 SORT UNIQUE			5	114	4	(25)	
00:00:01 * 6 TABLE ACCESS FULL 00:00:01	EMP	6	5	114	3	(0)	
7 SORT UNIQUE 00:00:01		[5	95	4	(25)	
* 8 TABLE ACCESS FULL 00:00:01	EMP		5	95	3	(0)	

Predicate Information (identified by operation id):

```
3 - filter("DEPTNO"=10)
```

Note

- dynamic sampling used for this statement (level=2)

SQL> cl scr

SkyEss Techno Solutions Pvt. Ltd.

Flat No. 201, II Floor, Abhilash Towers, BK Guda, Hyderabad – 500 038 Ph No. +9140 23710047, 64640047, Mobile: 9985798869

Contact For Courses And Training in

Oracle Developer Suite 10g(D2K), Oracle Apps R12, Live Projects in SQL and PL/SQL, Data Modeling, Linux/Unix

^{6 -} filter("DEPTNO"=30)

^{8 -} filter("DEPTNO"=20)

```
SQL> SELECT Dname
  2 FROM Dept
  3 WHERE Deptno = &GDeptno
  4 UNION
  5 SELECT Ename, Job, Sal
  6 FROM Emp
  7 WHERE Deptno = &GDeptno2;
Enter value for gdeptno: 10
Enter value for gdeptno2: 10
SELECT Dname
ERROR at line 1:
ORA-01789: query block has incorrect number of result columns
SQL> ED
Wrote file afiedt.buf
 1 SELECT Dname, NULL Ename, NULL Job, NULL Sal
  2 FROM Dept
  3 WHERE Deptno = &GDeptno1
  4 UNION
  5 SELECT NULL, Ename, Job, Sal
  6 FROM Emp
  7* WHERE Deptno = &GDeptno2
SOL> /
Enter value for gdeptnol: 10
Enter value for gdeptno2: 10
DNAME
              ENAME
ACCOUNTING
                       MANAGER
                                      2450
              CLARK
             KING
                       PRESIDENT
                                      5000
             MILLER
                       CLERK
                                      1300
Execution Plan
Plan hash value: 2936292807
  Id | Operation
                                                     | Rows | Bytes
                                    Name
 Cost (%CPU) | Time
```

SkyEss Techno Solutions Pvt. Ltd.

Flat No. 201, II Floor, Abhilash Towers, BK Guda, Hyderabad – 500 038 Ph No. +9140 23710047, 64640047, Mobile: 9985798869

Contact For Courses And Training in

Oracle Developer Suite 10g(D2K), Oracle Apps R12, Live Projects in SQL and PL/SQL, Data Modeling, Linux/Unix

```
0 | SELECT STATEMENT
                                                        139
    6 (84) 00:00:01
   1 | SORT UNIQUE
                                                        139
    6 (84) | 00:00:01 |
   2 UNION-ALL
         TABLE ACCESS BY INDEX ROWID DEPT
      (0)| 00:00:01 |
   4 | INDEX UNIQUE SCAN | DEPT_PRIMARY_KEY |
    1 (0) | 00:00:01 |
       TABLE ACCESS FULL
                             EMP
                                                        117
       (0) | 00:00:01 |
  _____
Predicate Information (identified by operation id):
  4 - access("DEPTNO"=10)
  5 - filter("DEPTNO"=10)
Note
  - dynamic sampling used for this statement (level=2)
Wrote file afiedt.buf
 1 SELECT Dname, NULL Ename, NULL Job, NULL Sal
 2 FROM Dept
 3 WHERE Deptno = &GDeptno1
 4 UNION
 5 SELECT NULL, Ename, Job, Sal
 6 FROM Emp
 7 WHERE Deptno = &GDeptno2
 8 UNION
 9 SELECT NULL, NULL, NULL, SUM(Sal)
10 FROM Emp
11* WHERE Deptno = &GDeptno3
SQL> /
Enter value for gdeptnol: 10
Enter value for gdeptno2: 10
Enter value for gdeptno3: 10
DNAME
          ENAME JOB
```

SkyEss Techno Solutions Pvt. Ltd.

Flat No. 201, II Floor, Abhilash Towers, BK Guda, Hyderabad – 500 038 Ph No. +9140 23710047, 64640047, Mobile: 9985798869

Contact For Courses And Training in

Oracle Developer Suite 10g(D2K), Oracle Apps R12, Live Projects in SQL and PL/SQL, Data Modeling, Linux/Unix

ACCOUNTING

CLARK MANAGER 2450

KING PRESIDENT 5000
MILLER CLERK 1300
8750

Execution Plan

Plan hash value: 1118198403

	Id Co		Operation %CPU) Time	 	Name	Row	rs		Bytes
-				· -					
		0 10	SELECT STATEMENT (90) 00:00:01]			5		165
		1	SORT UNIQUE	1		1	5		165
		10 2	(90) 00:00:01 UNION-ALL					I	
					V				
		3		BY INDEX ROWID	DEPT		1		22
	 * 	4	(0) 00:00:01 INDEX UNIQUE (0) 00:00:01	SCAN	DEPT_PRIMARY_KEY		1		
	 *	5	TABLE ACCESS	FULL	EMP	1	3	I	117
		3	(0) 00:00:01			•		•	
		6	SORT AGGREGAT	'E			1		26
		4	(25) 00:00:01	J			_		
	* 	7	TABLE ACCESS (0) 00:00:01	5 FULL	EMP	I	3	I	78
	l	3	(0)	1					

Predicate Information (identified by operation id):

- 4 access("DEPTNO"=10)
 5 filter("DEPTNO"=10)
- 7 filter("DEPTNO"=10)

Note

- dynamic sampling used for this statement (level=2)

SkyEss Techno Solutions Pvt. Ltd.

Flat No. 201, II Floor, Abhilash Towers, BK Guda, Hyderabad – 500 038 Ph No. +9140 23710047, 64640047, Mobile: 9985798869

Contact For Courses And Training in

Oracle Developer Suite 10g(D2K), Oracle Apps R12, Live Projects in SQL and PL/SQL, Data Modeling, Linux/Unix

•

SQL> /	/			
Enter	value	for	gdeptno1:	30
Enter	value	for	gdeptno2:	30
Enter	value	for	gdeptno3:	30

DNAME	ENAME	JOB	SAL
SALES			
	ALLEN	SALESMAN	1600
	BLAKE	MANAGER	2850
	JAMES	CLERK	950
	MARTIN	SALESMAN	1250
	TURNER	SALESMAN	1500
	WARD	SALESMAN	1250
			9400

8 rows selected.

Execution Plan

Plan hash value: 1118198403

	Id Operation Cost (%CPU) Time	N	ame	Rows	Bytes
	0 SELECT STATEMENT 10 (90) 00:00:01		1	8	282
	1 SORT UNIQUE 10 (90) 00:00:01		1	8	282
	2 UNION-ALL		I		
	3 TABLE ACCESS BY IN	DEX ROWID D	EPT	1	22
*	1 (0) 00:00:01 4 INDEX UNIQUE SCAN 1 (0) 00:00:01	D	EPT_PRIMARY_KEY	1	
*	5 TABLE ACCESS FULL 3 (0) 00:00:01	E	MP	6	234
	6 SORT AGGREGATE 4 (25) 00:00:01		1	1	26
*	7 TABLE ACCESS FULL 3 (0) 00:00:01	E	MP	6	156

SkyEss Techno Solutions Pvt. Ltd.

Flat No. 201, II Floor, Abhilash Towers, BK Guda, Hyderabad – 500 038 Ph No. +9140 23710047, 64640047, Mobile: 9985798869

Contact For Courses And Training in

Oracle Developer Suite 10g(D2K), Oracle Apps R12, Live Projects in SQL and PL/SQL, Data Modeling, Linux/Unix

Predicate Information (identified by operation id):

- 4 access("DEPTNO"=30)
- 5 filter("DEPTNO"=30)
- 7 filter("DEPTNO"=30)

Note

- dynamic sampling used for this statement (level=2)

SQL> cl scr

SQL> SELECT Deptno, SUM(Sal) SalSum

- 2 FROM Emp
- 3 GROUP BY Deptno;

SALSUM	DEPTNO
9400	30
10875	20
8750	10

Execution Plan

Plan hash value: 4067220884

Id Operation	Name	 Rows		Bytes		Cost	(%CPU)	Time
 0 SELECT STATEMENT	I	14		364		۷ِ	1 (25)	00:00:01
1 HASH GROUP BY		14		364		4	1 (25)	00:00:01
2 TABLE ACCESS FULI	L EMP	14		364		3	3 (0)	00:00:01

Note

SkyEss Techno Solutions Pvt. Ltd.

Flat No. 201, II Floor, Abhilash Towers, BK Guda, Hyderabad – 500 038 Ph No. +9140 23710047, 64640047, Mobile: 9985798869

Contact For Courses And Training in

Oracle Developer Suite 10g(D2K), Oracle Apps R12, Live Projects in SQL and PL/SQL, Data Modeling, Linux/Unix

```
- dynamic sampling used for this statement (level=2)
SOL> SELECT SUM(Sal)
 2 FROM Emp;
 SUM(SAL)
   29025
Execution Plan
Plan hash value: 2083865914
_____
 Id | Operation | Name | Rows | Bytes | Cost (%CPU) | Time
                                      13 | 3 (0) | 00:00:01
  0 | SELECT STATEMENT |
   1 | SORT AGGREGATE
                                 1 | 13 |
   2 | TABLE ACCESS FULL EMP
                                14 | 182 | 3 (0) | 00:00:01
                                   -----
Note
  - dynamic sampling used for this statement (level=2)
SQL> ED
Wrote file afiedt.buf
 1 SELECT Deptno, SUM(Sal) SalSum, OrgSal
 2 FROM Emp,
    SELECT SUM(Sal) OrgSal
    FROM Emp
 6 )
 7* GROUP BY Deptno, OrgSal
SOL> /
   DEPTNO SALSUM ORGSAL
```

SkyEss Techno Solutions Pvt. Ltd.

Flat No. 201, II Floor, Abhilash Towers, BK Guda, Hyderabad – 500 038 Ph No. +9140 23710047, 64640047, Mobile: 9985798869

Contact For Courses And Training in

Oracle Developer Suite 10g(D2K), Oracle Apps R12, Live Projects in SQL and PL/SQL, Data Modeling, Linux/Unix

10 8750 29025 20 10875 29025 30 9400 29025

Execution Plan

Plan hash value: 3003679369

Id Operation	Name	Rows	Bytes	Cost (%CPU) Tim	ne
0 SELECT STATEMENT		14	546	7	(15)	
00:00:01						
1 HASH GROUP BY		14	546	7	(15)	
00:00:01 2 NESTED LOOPS	1 1	14	546	6	(0)	
00:00:01	1		240	O	(0)	
3 VIEW		1	13	3	(0)	
00:00:01	1		ı			
4 SORT AGGREGATE		1	13			
-	Col		1			
5 TABLE ACCESS FUI	LL EMP	14	182	3	(0)	
00:00:01 6 TABLE ACCESS FULL	EMP	14	364	3	(0)	
00:00:01	PME	T.4	204	3	(0)	
00 00 01	7					

_ _ _ _ _

Note

- dynamic sampling used for this statement (level=2)

SOL> ED

Wrote file afiedt.buf

- 1 SELECT Deptno, SUM(Sal) SalSum,
- 2
- 3 SELECT SUM(Sal)
- 4 FROM Emp
- 5) OrgSal
- 6 FROM Emp,
- 7* GROUP BY Deptno

SkyEss Techno Solutions Pvt. Ltd.

Flat No. 201, II Floor, Abhilash Towers, BK Guda, Hyderabad – 500 038 Ph No. +9140 23710047, 64640047, Mobile: 9985798869

Contact For Courses And Training in

Oracle Developer Suite 10g(D2K), Oracle Apps R12, Live Projects in SQL and PL/SQL, Data Modeling, Linux/Unix

SQL> /
GROUP BY Deptno
*
ERROR at line 7:
ORA-00903: invalid table name

SQL> ED
Wrote file afiedt.buf

- 1 SELECT Deptno, SUM(Sal) SalSum,
- 2
- 3 SELECT SUM(Sal)
- 4 FROM Emp
- 5) OrgSal
- 6 FROM Emp
- 7* GROUP BY Deptno

SQL> /

ORGSAL	SALSUM	DEPTNO
29025	9400	30
29025	10875	20
29025	8750	10

Execution Plan

Plan hash value: 2065184867

SkyEss Techno Solutions Pvt. Ltd.

Flat No. 201, II Floor, Abhilash Towers, BK Guda, Hyderabad – 500 038 Ph No. +9140 23710047, 64640047, Mobile: 9985798869

Contact For Courses And Training in

Oracle Developer Suite 10g(D2K), Oracle Apps R12, Live Projects in SQL and PL/SQL, Data Modeling, Linux/Unix

Note

- dynamic sampling used for this statement (level=2)

SQL> ED

Wrote file afiedt.buf

- 1 SELECT Deptno, SUM(Sal) SalSum
- 2 FROM Emp
- 3 GROUP BY Deptno
- 4 UNION
- 5 SELECT NULL, SUM(Sal)
- 6* FROM Emp

SQL> /

SALSUM	DEPTNO
8750	10
10875	20
9400	30
29025	

Execution Plan

Plan hash value: 768573151

| Name | Rows | Bytes | Cost (%CPU) | Time Id Operation 0 | SELECT STATEMENT | 15 | 377 | 9 (67) 00:00:01 | 15 | 377 | 1 SORT UNIQUE 00:00:01 2 UNION-ALL 3 | HASH GROUP BY | 14 | 364 | 00:00:01 TABLE ACCESS FULL EMP 14 | 3 (0) 364 00:00:01

SkyEss Techno Solutions Pvt. Ltd.

Flat No. 201, II Floor, Abhilash Towers, BK Guda, Hyderabad – 500 038 Ph No. +9140 23710047, 64640047, Mobile: 9985798869

Contact For Courses And Training in

Oracle Developer Suite 10g(D2K), Oracle Apps R12, Live Projects in SQL and PL/SQL, Data Modeling, Linux/Unix

5 | SORT AGGREGATE | 1 | 13 | 00:00:01 | 6 | TABLE ACCESS FULL | EMP | 14 | 182 | 3 00:00:01 Note - dynamic sampling used for this statement (level=2) SOL> ED Wrote file afiedt.buf 1 SELECT Job, SUM(Sal) SalSum 2 FROM Emp 3 GROUP BY Job 4 UNION 5 SELECT NULL, SUM(Sal) 6* FROM Emp SQL> / JOB SALSUM ANALYST 6000 CLERK 4150 MANAGER 8275 PRESIDENT 5000 SALESMAN 5600 29025 6 rows selected. Execution Plan Plan hash value: 768573151 _____ Operation | Name | Rows | Bytes | Cost (%CPU) | Time 0 | SELECT STATEMENT | 15 | 279 | 9 (67) |

SkyEss Techno Solutions Pvt. Ltd.

Flat No. 201, II Floor, Abhilash Towers, BK Guda, Hyderabad – 500 038 Ph No. +9140 23710047, 64640047, Mobile: 9985798869

Contact For Courses And Training in

Oracle Developer Suite 10g(D2K), Oracle Apps R12, Live Projects in SQL and PL/SQL, Data Modeling, Linux/Unix

Follow Me: https://www.facebook.com/satishkumar.yellanki

00:00:01

1 SORT UNIQUE 00:00:01	1	1	15	279	9	(67)	
2 UNION-ALL			1				A (
3 HASH GROUP BY 00:00:01	1		14	266	5	(40)	A.
4 TABLE ACCESS FUL:	L EMP		14	266	3	(0)	
5 SORT AGGREGATE 00:00:01			1	13	4	(25)	-
6 TABLE ACCESS FUL:	L EMP		14	182	3	(0)	
Note							
- dynamic sampling used for	or this	stat	ement (level=	2)		
SQL> ED Wrote file afiedt.buf		1	0)				
1 SELECT 2 TO_CHAR(HireDate, 'YYYY 3 FROM Emp 4 GROUP BY TO_CHAR(HireDate) 5 UNION 6 SELECT NULL, SUM(Sal) 7* FROM Emp SQL> /			(Sal) Sa	alSum			
YEAR SALSUM							
1980 800 1981 22825 1982 4300 1983 1100 29025							
, O. Y							
Execution Plan							
Plan hash value: 768573151							

SkyEss Techno Solutions Pvt. Ltd.

Flat No. 201, II Floor, Abhilash Towers, BK Guda, Hyderabad – 500 038 Ph No. +9140 23710047, 64640047, Mobile: 9985798869

Contact For Courses And Training in

Oracle Developer Suite 10g(D2K), Oracle Apps R12, Live Projects in SQL and PL/SQL, Data Modeling, Linux/Unix

Id Operation	Name	R	ows E	Bytes C	ost (%CPU)	Time
 0 SELECT STATEMENT			15	321	9	(67)	
00:00:01 1 SORT UNIQUE 00:00:01			15	321	9	(67)	AM
2 UNION-ALL							
3 HASH GROUP BY 00:00:01			14	308	5	(40)	
4 TABLE ACCESS FULL 00:00:01	EMP		14	308	3	(0)	
5 SORT AGGREGATE 00:00:01			1	13	4	(25)	
6 TABLE ACCESS FULL 00:00:01	EMP		14	182	3	(0)	
Note			(6)				
- dynamic sampling used for SQL> ED Wrote file afiedt.buf 1 SELECT 2 Ename, Sal 3 FROM Emp 4 UNION 5 SELECT NULL, SUM(Sal) 6* FROM Emp SQL> / ENAME SAL	this	sta	tement ((level=2)			

ENAME		SAL
ADAMS		1100
ALLEN	h	1600
BLAKE	£	2850
CLARK		2450
FORD		3000
JAMES		950
JONES		2975
KING		5000
MARTIN		1250

SkyEss Techno Solutions Pvt. Ltd.

Flat No. 201, II Floor, Abhilash Towers, BK Guda, Hyderabad – 500 038 Ph No. +9140 23710047, 64640047, Mobile: 9985798869

Contact For Courses And Training in

Oracle Developer Suite 10g(D2K), Oracle Apps R12, Live Projects in SQL and PL/SQL, Data Modeling, Linux/Unix

1300
3000
800
1500
1250
29025

15 rows selected.

Execution Plan

Plan hash value: 1936257533

Cost (%CPU) | Time | Id | Operation Name Rows Bytes 0 | SELECT STATEMENT 293 l 8 (63) 00:00:01 1 | SORT UNIQUE 293 00:00:01 2 | UNION-ALL 3 | TABLE ACCESS FULL | EMP 14 280 (0) 00:00:01 1 | 13 | 4 SORT AGGREGATE 4 (25) 00:00:01 5 | TABLE ACCESS FULL EMP 14 | 182 | (0) 00:00:01

Note

- dynamic sampling used for this statement (level=2)

SQL> cl scr

SQL> SELECT Deptno, Job, SUM(Sal) SalSum

- 2 FROM Emp
- 3 GROUP BY Deptno, Job
- 4 ORDER BY Deptno;

DEPTNO JOB SALSUM

SkyEss Techno Solutions Pvt. Ltd.

Flat No. 201, II Floor, Abhilash Towers, BK Guda, Hyderabad – 500 038 Ph No. +9140 23710047, 64640047, Mobile: 9985798869

Contact For Courses And Training in

Oracle Developer Suite 10g(D2K), Oracle Apps R12, Live Projects in SQL and PL/SQL, Data Modeling, Linux/Unix

30 CLERK 30 MANAGER 30 SALESMAN	6000 1900 2975 950 2850					6	
9 rows selected.				4	+		
Execution Plan						•	
Plan hash value: 15469362						-	
 Id Operation 	Name	Rows	B	ytes	Cost	(%CPU)	Time
 0 SELECT STATEMENT	1	14		448	4	(25)	00:00:01
1 SORT GROUP BY	1	14		448	4	(25)	00:00:01
2 TABLE ACCESS FULI	L EMP	14		448	3	(0)	00:00:01
Note	4						
- dynamic sampling used SQL> ED Wrote file afiedt.buf	for this	s statem	ment	(level	.=2)		
1 SELECT Deptno, Job, St 2 FROM Emp 3 GROUP BY Deptno, Job	JM(Sal) S	SalSum					
3 GROUP BY Deptno, Job 4 UNION 5 SELECT Deptno, NULL, S	SUM(Sal)						
6 FROM Emp 7* GROUP BY Deptno	,						

SkyEss Techno Solutions Pvt. Ltd.

Flat No. 201, II Floor, Abhilash Towers, BK Guda, Hyderabad – 500 038 Ph No. +9140 23710047, 64640047, Mobile: 9985798869

Contact For Courses And Training in

Oracle Developer Suite 10g(D2K), Oracle Apps R12, Live Projects in SQL and PL/SQL, Data Modeling, Linux/Unix

SOI	·>	/
SO_1		-/

DEPTNO	JOB	SALSUM
10	CLERK	1300
10	MANAGER	2450
10	PRESIDENT	5000
10		8750
20	ANALYST	6000
20	CLERK	1900
20	MANAGER	2975
20		10875
30	CLERK	950
30	MANAGER	2850
30	SALESMAN	5600
30		9400

12 rows selected.

Execution Plan

Plan hash value: 961949858

Id Operation Name	e 1	Rows	Bytes	Cost (%CPU) :	Гime
0 SELECT STATEMENT		28	812	10	(70)	
00:00:01	1	00	010	1.0	(E0)	
1 SORT UNIQUE 00:00:01	l	28	812	10	(70)	
2 UNION-ALL			1			
3 HASH GROUP BY 00:00:01		14	448	5	(40)	
TABLE ACCESS FULL EMP		14	448	3	(0)	
5 HASH GROUP BY 00:00:01		14	364	5	(40)	
TABLE ACCESS FULL EMP 00:00:01		14	364	3	(0)	

SkyEss Techno Solutions Pvt. Ltd.

Flat No. 201, II Floor, Abhilash Towers, BK Guda, Hyderabad – 500 038 Ph No. +9140 23710047, 64640047, Mobile: 9985798869

Contact For Courses And Training in

Oracle Developer Suite 10g(D2K), Oracle Apps R12, Live Projects in SQL and PL/SQL, Data Modeling, Linux/Unix

Note - dynamic sampling used for this statement (level=2) SOL> ED Wrote file afiedt.buf 1 SELECT Deptno, Job, SUM(Sal) SalSum 2 FROM Emp 3 GROUP BY Deptno, Job 4 UNION 5 SELECT Deptno, NULL, SUM(Sal) 6 FROM Emp 7 GROUP BY Deptno 8 UNION 9 SELECT NULL, NULL, SUM(Sal) 10* FROM Emp SOL> / DEPTNO JOB SALSUM _____ 10 CLERK 1300 10 MANAGER 2450 10 PRESIDENT 5000 10 8750 20 ANALYST 6000 20 CLERK 1900 20 MANAGER 2975 2.0 10875 30 CLERK 950 30 MANAGER 2850 30 SALESMAN 5600 30 9400 29025 13 rows selected. Execution Plan Plan hash value: 3412076862

Operation | Name | Rows | Bytes | Cost (%CPU) | Time

SkyEss Techno Solutions Pvt. Ltd.

Flat No. 201, II Floor, Abhilash Towers, BK Guda, Hyderabad - 500 038 Ph No. +9140 23710047, 64640047, Mobile: 9985798869

Contact For Courses And Training in

Oracle Developer Suite 10g(D2K), Oracle Apps R12, Live Projects in SQL and PL/SQL, Data **Modeling, Linux/Unix**

Follow Me: https://www.facebook.com/satishkumar.yellanki

Ιd

0 | SELECT STATEMENT | 29 | 825 | 14 (79) 00:00:01 | 29 | 825 | 1 | SORT UNIQUE 14 (79) 00:00:01 2 | UNION-ALL 3 | HASH GROUP BY | 14 | 448 00:00:01 4 | TABLE ACCESS FULL | EMP | 14 | 448 (0) 00:00:01 HASH GROUP BY 14 5 364 (40) 00:00:01 | TABLE ACCESS FULL EMP 6 14 364 (0) 00:00:01 7 | SORT AGGREGATE | 13 (25)00:00:01 8 TABLE ACCESS FULL EMP (0) 00:00:01 Note - dynamic sampling used for this statement (level=2) SQL> cl scr SOL> ED Wrote file afiedt.buf 1 SELECT Deptno, Job, SUM(Sal) SalSum 2 FROM Emp 3 GROUP BY Deptno, Job 4 UNION 5 SELECT Deptno, NULL, SUM(Sal) 6 FROM Emp 7 GROUP BY Deptno 8 UNION 9 SELECT NULL, Job, SUM(Sal) 10 FROM EMp 11 GROUP BY Job 12 UNION 13 SELECT NULL, NULL, SUM(Sal) 14* FROM Emp

SkyEss Techno Solutions Pvt. Ltd.

Flat No. 201, II Floor, Abhilash Towers, BK Guda, Hyderabad – 500 038 Ph No. +9140 23710047, 64640047, Mobile: 9985798869

Contact For Courses And Training in

Oracle Developer Suite 10g(D2K), Oracle Apps R12, Live Projects in SQL and PL/SQL, Data Modeling, Linux/Unix

-

DEPTNO	JOB	SALSUM
10	CLERK	1300
10	MANAGER	2450
10	PRESIDENT	5000
10		8750
20	ANALYST	6000
20	CLERK	1900
20	MANAGER	2975
20		10875
30	CLERK	950
30	MANAGER	2850
30	SALESMAN	5600
30		9400
	ANALYST	6000
	CLERK	4150
	MANAGER	8275
	PRESIDENT	5000
	SALESMAN	5600
DEPTNO	JOB	SALSUM
	_	29025

18 rows selected.

Execution Plan

Plan hash value: 3471315269

 Id	Name	Ro	ws	Bytes	Co	st (9	%CPU) Ti	me
 0 SELECT STATEMENT 00:00:01			43	1091		19	(85)	
1 SORT UNIQUE 00:00:01			43	1091		19	(85)	
2 UNION-ALL	1							
3 HASH GROUP BY 00:00:01			14	448		5	(40)	

SkyEss Techno Solutions Pvt. Ltd.

Flat No. 201, II Floor, Abhilash Towers, BK Guda, Hyderabad – 500 038 Ph No. +9140 23710047, 64640047, Mobile: 9985798869

Contact For Courses And Training in

Oracle Developer Suite 10g(D2K), Oracle Apps R12, Live Projects in SQL and PL/SQL, Data Modeling, Linux/Unix

4	TABLE ACCESS FULL EMP		14	448	3 (0)
00:00:01					
5	HASH GROUP BY		14	364	5 (40)
00:00:01		•	•	•	
6	TABLE ACCESS FULL EMP		14	364	3 (0)
00:00:01	·	•	•	•	
7	HASH GROUP BY		14	266	5 (40)
00:00:01	·	•	•	•	
8	TABLE ACCESS FULL EMP		14	266	3 (0)
00:00:01	'		'	'	
9	SORT AGGREGATE		1	13	4 (25)
00:00:01	·	•	•		
10	TABLE ACCESS FULL EMP		14	182	3 (0)
00:00:01	·	•	•		
•					4

Note

- dynamic sampling used for this statement (level=2)

SQL> cl scr

SQL> SELECT Deptno, NULL Job, SUM(Sal) SalSum

- 2 FROM Emp
- 3 GROUP BY Deptno
- 4 UNION
- 5 SELECT NULL, Job, SUM(Sal)
- 6 FROM Emp
- 7 GROUP BY Job;

DEPTNO	JOB	SALSUM
10		8750
20		10875
30	The of	9400
	ANALYST	6000
	CLERK	4150
	MANAGER	8275
	PRESIDENT	5000
	SALESMAN	5600

8 rows selected.

Execution Plan

SkyEss Techno Solutions Pvt. Ltd.

Flat No. 201, II Floor, Abhilash Towers, BK Guda, Hyderabad – 500 038 Ph No. +9140 23710047, 64640047, Mobile: 9985798869

Contact For Courses And Training in

Oracle Developer Suite 10g(D2K), Oracle Apps R12, Live Projects in SQL and PL/SQL, Data Modeling, Linux/Unix

0 SI	ELECT STATEMENT			28	630	10 (70)
00:00:01						
1 5	SORT UNIQUE			28	630	10 (70)
00:00:01					4	
2	UNION-ALL					
					41	
3	HASH GROUP BY			14	364	5 (40)
00:00:01						
4	TABLE ACCESS	FULL EMP		14	364	3 (0)
00:00:01						
5	HASH GROUP BY			14	266	5 (40)
00:00:01				AT.	•	
6	TABLE ACCESS	FULL EMP		14	266	3 (0)
00:00:01			400			

Note

- dynamic sampling used for this statement (level=2)

SQL> cl scr

SQL> set autotrace off explain

SQL> CL SCR

SQL> CONN SYS AS SYSDBA

Connected.

SQL> GRANT CREATE ANY VIEW

2 TO SCOTT;

Grant succeeded.

SQL> CONN SCOTT/tiger

Connected.

SQL> SPOOL OFF

SkyEss Techno Solutions Pvt. Ltd.

Flat No. 201, II Floor, Abhilash Towers, BK Guda, Hyderabad – 500 038 Ph No. +9140 23710047, 64640047, Mobile: 9985798869

Contact For Courses And Training in

Oracle Developer Suite 10g(D2K), Oracle Apps R12, Live Projects in SQL and PL/SQL, Data Modeling, Linux/Unix