**Query Optimization**

1. **Grant permissions and enable autotrace**

Enter user-name: system

Enter password:

Connected.

SQL> GRANT PLUSTRACE TO system;

Grant succeeded.

SQL> set autotrace on;

SQL> GRANT PLUSTRACE TO user30b;

Grant succeeded.

SQL> conn

Enter user-name: user30b

Enter password:

Connected.

SQL> set autotrace on;

1. **Run sel.sql**

SQL> @C:\sel.sql

ID NAME DEPARTMENT COMPANY

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1 satyen comps jpmorgan

2 nikita comps TCS

24 akash comps microsoft

Execution Plan

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Plan hash value: 2226897347

--------------------------------------------------------------------------

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

--------------------------------------------------------------------------

| 0 | SELECT STATEMENT | | 3 | 99 | 2 (0)| 00:00:01 |

|\* 1 | TABLE ACCESS FULL| EMP1 | 3 | 99 | 2 (0)| 00:00:01 |

--------------------------------------------------------------------------

Predicate Information (identified by operation id):

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1 - filter("DEPARTMENT"='comps')

Note

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- dynamic sampling used for this statement

Statistics

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5 recursive calls

0 db block gets

8 consistent gets

0 physical reads

0 redo size

672 bytes sent via SQL\*Net to client

380 bytes received via SQL\*Net from client

2 SQL\*Net roundtrips to/from client

0 sorts (memory)

0 sorts (disk)

3 rows processed

1. **Run sel1.sql**

SQL> @C:\sel1.sql

ID NAME DEPARTMENT COMPANY

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1 satyen comps jpmorgan

2 nikita comps TCS

24 akash comps microsoft

Execution Plan

----------------------------------------------------------

Plan hash value: 2226897347

--------------------------------------------------------------------------

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

--------------------------------------------------------------------------

| 0 | SELECT STATEMENT | | 3 | 99 | 2 (0)| 00:00:01 |

|\* 1 | TABLE ACCESS FULL| EMP1 | 3 | 99 | 2 (0)| 00:00:01 |

--------------------------------------------------------------------------

Predicate Information (identified by operation id):

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1 - filter("DEPARTMENT"='comps')

Note

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- dynamic sampling used for this statement

Statistics

----------------------------------------------------------

4 recursive calls

0 db block gets

8 consistent gets

0 physical reads

0 redo size

672 bytes sent via SQL\*Net to client

380 bytes received via SQL\*Net from client

2 SQL\*Net roundtrips to/from client

0 sorts (memory)

0 sorts (disk)

3 rows processed

1. **Sel.sql**

select \* from emp1 where department='comps';

1. **Sel1.sql**

select id,name,department,company from emp1 where department='comps';