

2.)

Query 1: SELECT * FROM PERSONS;

Cost:

- 27

Was it a full or index scan of the table?

- Full scan

Why?

- Because there is no primary key constraint which oracle can use to automatically create indexes.

3.)

Query 2: SELECT * FROM PERSONS WHERE person_id > 1000 AND person_id < 3000;

Cost:

- 27

Was it a full or index scan of the table?

- Full scan

Why?

- Yes. The result is outputted faster since there's less row of data being searched

4.)

Query 1: ALTER TABLE PERSONS

ADD CONSTRAINT persons_pk PRIMARY KEY(person_id);

SELECT * FROM PERSONS;

Cost:

- 27

Was it a full or index scan of the table?

- Full scan

Comment the results.

- results is still the same as it is searching the whole table.

Query 2: SELECT * FROM PERSONS WHERE person_id > 1000 AND person_id < 3000;

Cost:

- 7

Was it a full or index scan of the table?

- Index scan

Comment the results.

- results are faster now since it uses index scan using the index that was automatically created when the primary key constraint was created.

5.)

Query 3: select * from persons where person_id+5>1000 and person_id<3000

Cost:

- 11

Was it a full or index scan of the table?

- Index scan

Comment the results.

- Query is still indexed

Query 4: select * from persons where person_id+5>1000 and person_id*2<3000

Cost:

- 27

Was it a full or index scan of the table?

- Full scan

Comment the results.

- Index is removed causing a full scan to be used

6.)

Query 5: select person_age, count(person_id) from persons group by person_age;

Cost:

- 27

Was it a full or index scan of the table?

- Full scan

Comment the results.

- person_id does not help since we are grouping using person_age

7.)

Query 5 w/ index on person_Age:

Cost:

- 9

Was it a full or index scan of the table?

- Index Scan

After modifying the table:

Cost:

- 26

Was it a full or index scan of the table?

- Full Scan

8.)

Joining two tables:

Cost:

- 239

- Cardinality: 27

Was it a full or index scan of the table?

- Full Scan on Jobs and Full scan on Jobs_persons

After adding index on the primary/foreign keys:

- Adding the index to the primary/foreign keys saw a reduction in cost due to using the indexes.

