



高效SQL

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Performance Tuning Concept:

a) Steps for Tuning Oracle

.Installation and Configuration Oracle

.Application Design

.Tuning Data Access

.Tuning Memory Management

.Tuning Disk I/O

.Tuning CPU Usage

.Tuning Resource Contention

Tuning Data Access



**Select a, b, c
from table1
where c1='A';**

IF C1 is an index Then

Index Scan ?

Or

Full table Scan ?

Tuning Data Access



select * from t1 where c1='A'

75% rows

1% rows

full table scan

index scan

select * from t1 where c1='B'

Tuning Data Access



1. Optimizer disable

2. Bind variable **vs** parse , SQL area

3. PL SQL **vs** SQL

4. What is SQL

S tructure
Q uery
L anguage

S imple
Q uery
L anguage

S tupid
Q uery
L anguage

Tuning Data Access



How to decide when need to create indexes

Indexes improve the performance of queries that select a small percentage of rows from the table. As a general guideline, you should create indexes on table which are often queries for less of the table's rows.

2% - 4%

Tuning Data Access



How

ALL_ROWS

報表程式

```
SELECT /*+ ALL_ROWS */ empname, title  
FROM dbpbd1.dbpbdemp  
WHERE empno='0195';
```

To optimize a statement block with a goal of
best throughput
(that is minimum total resource consumption).

FIRST_ROWS

輸入程式

```
SELECT /*+ FIRST_ROWS */ empname, title  
FROM dbpbd1.dbpbdemp  
WHERE empno='0195';
```

To optimize a statement block with a goal of
best response

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Application Design

1. CPU , Memory & Disc
2. More index **and/or** Less index
3. Data analyze & design
4. System analyze & design

Application Design

1.

報表程式

式

適合較多的**index** 以
增加執行效益？

Application Design

2. 那些程式
 不適合較多的 **index**
 以增加執行效益？

輸入程式

Application Design

留給大家思考！

為何？

IM?

如何避免？

Performance Tuning C

a) Steps for Tuning

系統分析與設計

.Installation and C

思考多一點
討論多一點

.Application Design

.Tuning Data Access

.Tuning Memory Management

程式設計

技巧少一點
簡單一點

谢谢聆听
Thanks



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