

SQL Tuning

WEEK 07

Database Administration
FEAA | SDBIS-SIA MASTER

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Week 7 – SQL Tuning

Last week we looked over the details of the Oracle instance tuning. Now it's time to move forward and see how we can tune various SQL statements.

Prepare VM

As usual, ensure that you're working on the "week2" snapshot, where Oracle is already installed.

```
[root@orasrv ~]# week2.sh
```

SQL Filter Selectivity

- Poor selectivity vs Good selectivity
- Examples of good/poor selectivity queries

Execution Plans:

- How to get the execution plan
- Reading the execution plan
- The most common access paths
- Tuning goal metrics: execution time, cost, consistent gets

Tuning Techniques for Poor Selectivity Queries

- db_file_multiblock_read_count
- Parallelism
- Table partitioning
- Caching
- Data Compression

Indexes

- The concept
- Type of indexes
- B-Tree indexes vs bitmap indexes
- Indexes usage scenarios

Index vs FTS

- Why?
- When?

Hands-on practice

- A SQL tuning scenario

Extra Reading

- On FEAA portal: W07_optimize_sql_ro.pdf