

Easy CramBible Lab



1Z1-054

Oracle Database 11g: Performance Tuning

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THE TOTAL NUMBER OF QUESTIONS IS 191

1. After running SQL Performance Analyzer (SPA), you observe a few regressed SQL statements in the SPA output. Identify the two actions that you would suggest for these regressed SQL statements.

(Choose two.)

- A. Running SQL Access Advisor
- B. Adding them to SQL Plan Baseline
- C. Submitting them to SQL Tuning Advisor
- D. Running Automatic Database Diagnostic Monitor (ADDM)

ANSWER: BC

2. View the Exhibit exhibit1 to examine the series of SQL commands and parameter settings.

SQL> SHOW PARAMETER OPTIMIZER

| NAME | TYPE | VALUE |
|--------------------------------------|---------|----------|
| optimizer_capture_sql_plan_baselines | boolean | TRUE |
| optimizer_dynamic_sampling | integer | 2 |
| optimizer_features_enable | string | 11.1.0.6 |
| optimizer_index_caching | integer | 0 |
| optimizer_index_cost_adj | integer | 100 |
| optimizer_mode | string | ALL_ROWS |
| optimizer_secure_view_merging | boolean | TRUE |
| optimizer_use_invisible_indexes | boolean | FALSE |
| optimizer_use_pending_statistics | boolean | FALSE |
| optimizer_use_sql_plan_baselines | boolean | TRUE |

```
SQL> SELECT * FROM sh.sales WHERE quantity_sold > 40 ORDER BY prod_id;
SQL> SELECT * FROM sh.sales WHERE quantity_sold > 40 ORDER BY prod_id;
SQL> ALTER SESSION SET OPTIMIZER_MODE=FIRST_ROWS;
SQL> SELECT * FROM sh.sales WHERE quantity_sold > 40 ORDER BY prod_id;
```

View the Exhibit exhibit2 to examine the plans available in the SQL plan baseline.

| Select | Name | SQL Text | Enabled | Accepted | Fixed | Auto Purge | Created | Last Modified |
|--------------------------|-------------------------------|--|---------|----------|-------|------------|-------------------------|-------------------------|
| <input type="checkbox"/> | SYS_SQL_PLAN_89447021cf314e9e | select * from hr.employees where job_id='CLERK' | YES | YES | NO | YES | Jul 20, 2008 7:02:30 PM | Jul 20, 2008 7:16:48 PM |
| <input type="checkbox"/> | SYS_SQL_PLAN_894470210572d2e8 | select * from hr.employees where job_id='CLERK' | YES | NO | NO | YES | Jul 20, 2008 7:20:45 PM | Jul 20, 2008 7:20:45 PM |
| <input type="checkbox"/> | SYS_SQL_PLAN_7ed8568135b3cdca | SELECT NAME NAME COL PLUS SHOW PARAM,DECODE (TYPE,1... | YES | YES | NO | YES | Jul 21, 2008 2:40:44 PM | Jul 21, 2008 2:40:44 PM |
| <input type="checkbox"/> | SYS_SQL_PLAN_4698b35ddf463620 | select * from table(dbms_xplan.display (null,null,'... | YES | YES | NO | YES | Jul 20, 2008 7:04:22 PM | Jul 20, 2008 7:04:22 PM |
| <input type="checkbox"/> | SYS_SQL_PLAN_467a776254bc8843 | select * from sh.sales where quantity_sold > 40 or... | YES | YES | NO | YES | Jul 21, 2008 2:25:42 PM | Jul 21, 2008 2:25:42 PM |
| <input type="checkbox"/> | SYS_SQL_PLAN_467a776211df68d0 | select * from sh.sales where quantity_sold > 40 or... | YES | NO | YES | YES | Jul 21, 2008 2:41:22 PM | Jul 21, 2008 2:41:56 PM |

The first plan (in red) is created when OPTIMIZER_MODE is set to ALL_ROWS and the second plan (in blue) is created when OPTIMIZER_MODE is set to FIRST_ROWS.

Which SQL plan baseline would be used if the SQL query in exhibit1 is executed again when the value of OPTIMIZER_MODE is set to FIRST_ROWS?

- A. the second plan, because it is a fixed plan
- B. the first plan, because it is an accepted plan
- C. the second plan, because it is the latest generated plan in FIRST_ROW mode
- D. A new plan, because the second plan in FIRST_ROW mode is not an accepted plan

ANSWER: B

3. You work as a DBA for a company and you have the responsibility of managing one of its online transaction processing (OLTP) systems. The database encountered performance-related problems and you generated an Automatic Workload Repository (AWR) report to investigate it further. View the Exhibits and examine the AWR report.

Top 5 Timed Foreground Events

| Event | Waits | Time(s) | Avg wait (ms) | % DB time | Wait Class |
|-------------------------|--------|---------|---------------|-----------|-------------|
| DB CPU | | 584 | | 29.08 | |
| library cache: mutex X | 14,721 | 71 | 5 | 3.53 | Concurrency |
| latch: shared pool | 1,158 | 55 | 48 | 2.76 | Concurrency |
| cursor: pin S wait on X | 3,777 | 50 | 13 | 2.50 | Concurrency |
| log file sync | 672 | 17 | 25 | 0.83 | Commit |

Time Model Statistics

- Total time in database user-calls (DB Time): 2008.5s
- Statistics including the word "background" measure background process time, and so do not contribute to the DB time statistic
- Ordered by % of DB time desc, Statistic name

| Statistic Name | Time (s) | % of DB Time |
|--|----------|--------------|
| sql execute elapsed time | 1,731.94 | 86.23 |
| DB CPU | 584.11 | 29.08 |
| parse time elapsed | 533.72 | 26.57 |
| hard parse elapsed time | 416.43 | 20.73 |
| connection management call elapsed time | 33.26 | 1.66 |
| PL/SQL compilation elapsed time | 10.58 | 0.53 |
| Java execution elapsed time | 8.01 | 0.40 |
| failed parse elapsed time | 5.20 | 0.26 |
| PL/SQL execution elapsed time | 3.66 | 0.18 |
| hard parse (sharing criteria) elapsed time | 1.94 | 0.10 |
| hard parse (bind mismatch) elapsed time | 1.33 | 0.07 |
| sequence load elapsed time | 0.41 | 0.02 |
| repeated bind elapsed time | 0.05 | 0.00 |
| DB time | 2,008.48 | |
| background elapsed time | 32.06 | |
| background cpu time | 4.79 | |

Load Profile

| | Per Second | Per Transaction | Per Exec | Per Call |
|-------------------|------------|-----------------|----------|----------|
| DB Time(s): | 3.8 | 12.6 | 0.01 | 0.00 |
| DB CPU(s): | 1.1 | 3.7 | 0.00 | 0.00 |
| Redo size: | 6,062.3 | 20,190.1 | | |
| Logical reads: | 5,982.5 | 19,924.3 | | |
| Block changes: | 25.5 | 84.9 | | |
| Physical reads: | 2,778.2 | 9,252.7 | | |
| Physical writes: | 2.9 | 9.7 | | |
| User calls: | 1,263.4 | 4,207.7 | | |
| Parses: | 506.6 | 1,687.3 | | |
| Hard parses: | 53.3 | 177.5 | | |
| W/A MB processed: | 726,646.9 | 2,420,040.5 | | |
| Logons: | 1.1 | 3.5 | | |
| Executes: | 513.1 | 1,708.9 | | |
| Rollbacks: | 0.1 | 0.3 | | |
| Transactions: | 0.3 | | | |