Checklist for Analysing Slow-Running SELECT

- Analyse SELECT for joins , dblinks , where clause
- Check Execution Plan
- Check weather data is coming from remote database or from same database, If huge volume of data is coming over the network then try to reduce I/o by using partitioning or materialize view.
- Check wait event from V$session to find the exact reason for the SQL query slowness.
- Analyse Where Clause and check weather index are utilized or not. if needed create new index for the better improvement keeping histogram in mind.
- Analyse AWR Report to know the load on the machine and what are the queries running at same time.
- Analysing ADDM,ASH Report
- Check all table statistics are up to date which are used In the select statement.
- Look for the Fragmentation for the tables utilized in select.
- Look weather a SELECT is part of the Procedure or individual query ,if it's a part of the procedure then look weather bind variables are utilized or not to reduce the HARD Parsing.
- Try to run the Query in with PARALLEL and check whether the cost of the SELECT is reducing or not.
- Try to utilise the Proper HINTS for the SELECT Statement.
- Try to simplify the SELECT Statement by rewriting the SELECT.
- Run the SQL Tuning Advisor.
- Set SQL Profile/Baseline if the SELECT Statement is running very frequently.
- Identify the problem weather its I/O or CPU. In most of the cases I/O is the culprit try to reduce it by Index ,Materialize view ,or Partitioning

Checklist for Analysing Slow-Running INSERT

- Identify the INSERT Statement (whether its single insert statement with values clause or insert with select statement)
- If user is inserting using select statement the check all the points mentioned in "Checklist for Analysing Slow-Running SELECT"
- Also check for the possibility if it is utilized inside cursor / loop then try to use collection for bulk bind.
- If data is not going to update in the given table where you are inserting data then try to reduce PCTFREE in the block.
- Utilized the append HINT.
- If its dataware / or no DR is setup then utilize NOLOGGING clause.

Checklist for Analysing Slow-Running DELETE/update

- If user is DELETING using select statement the check all the points mentioned in "Checklist for Analysing Slow-Running SELECT"
- Find whether any deadlock or lock are happening.
- Focus on V$session for wait class and look BLOCK PARAMETER i.e PCTFREE

INITTRANS etc.
- Suggest to utilise bulk bind if possible.

Checklist for Analysing Slow-Running Subprogramme

- Look for the trace tkprof to find the all the information and performance of the each query utilized in subprogramme.
- Utilise dbms_profiler to identify which row is causing performance.
- Once identified the type of the Statement i.e DQL ,DML ,DDL utilise all the above checklist for SELECT,INSERT,UPDATE,DELETE