MySQL - RDBMS

Trainer: Mr. Nilesh Ghule

Sub queries

- Sub-query is query within query. Typically it work with SELECT statements.
- Output of inner query is used as input to outer query.
- If no optimization is enabled, for each row of outer query result, sub-query is executed once. This reduce performance of sub-query.
- Single row sub-query
    - Sub-query returns single row.
    - Usually it is compared in outer query using relational operators.

Sub queries

- Multi-row sub-query
    - Sub-query returns multiple rows.
    - Usually it is compared in outer query using operators like IN, ANY or ALL.
        - IN operator checks for equality with results from sub-queries. — like OR } any one should match
        - ANY operator compares with ~~one of the~~ all result from sub-queries. → like OR } should match
        - ALL operator compares with all the results from sub-queries. → like AND } all should match.

Sub queries

- Correlated sub-query
  - If number of results from sub-query are reduced, query performance will increase.
  - This can be done by adding criteria (WHERE clause) in sub-query based on outer query row.
  - Typically correlated sub-query use IN, ALL, ANY and EXISTS operators.

Sub query

- Sub queries with UPDATE and DELETE are not supported in all RDBMS.

- In MySQL, Sub-queries in UPDATE/DELETE is allowed, but sub-query should not SELECT from the same table, on which UPDATE/DELETE operation is in progress.

Thank you!

Nilesh Ghule <nilesh@sunbeaminfo.com>