



MySQL - RDBMS

Trainer: Mr. Nilesh Ghule



SELECT – DQL – WHERE

- ✗ BETWEEN operator (include both ends)
 - c1 BETWEEN val1 AND val2
- ✗ IN operator (equality check with multiple values)
 - c1 IN (val1, val2, val3)
- LIKE operator (similar strings)
 - c1 LIKE 'pattern'.
 - % represent any number of any characters.
 - _ represent any single character.



UPDATE – DML

- To change one or more rows in a table.
- Update row(s) single column.
 - UPDATE table SET c2=new-value WHERE c1=some-value;
- Update multiple columns.
 - UPDATE table SET c2=new-value, c3=new-value WHERE c1=some-value;
- Update all rows single column.
 - UPDATE table SET c2=new-value;



DELETE – DML vs TRUNCATE – DDL vs DROP – DDL

- DELETE

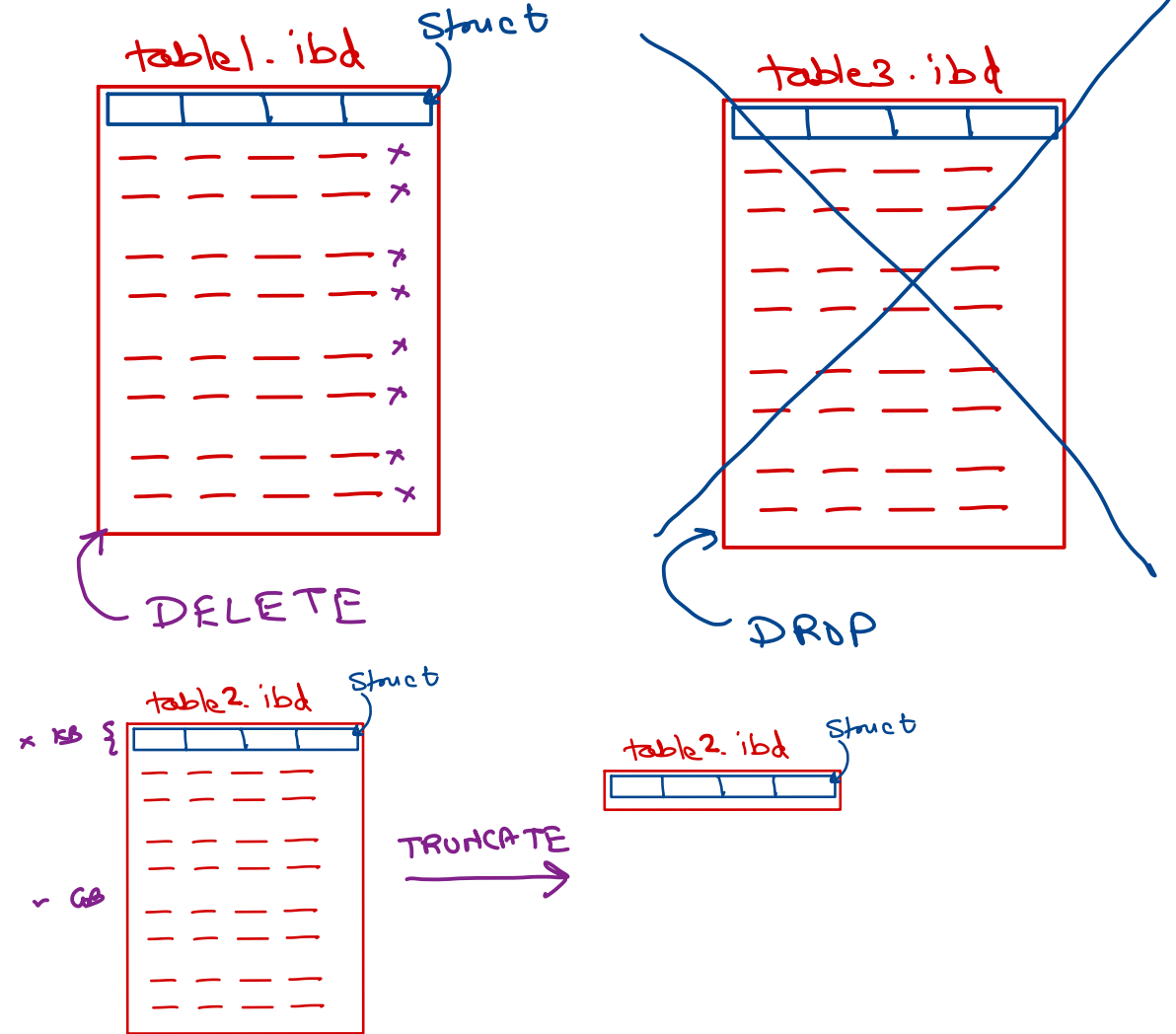
- To delete one or more rows in a table.
- Delete row(s)
 - DELETE FROM table WHERE c1=value;
- Delete all rows
 - DELETE FROM table ;

- TRUNCATE

- Delete all rows.
 - TRUNCATE TABLE table;
- Truncate is faster than DELETE.

- DROP

- Delete all rows as well as table structure.
 - DROP TABLE table;
 - DROP TABLE table IF EXISTS;
- Delete database/schema.
 - DROP DATABASE db;



Seeking HELP

- HELP is client command to seek help on commands/functions.
 - HELP SELECT;
 - HELP Functions;
 - HELP SIGN;



DUAL table

- A dummy/in-memory a table having single row & single column.
- It is used for arbitrary calculations, testing functions, etc.
 - `SELECT 2 + 3 * 4 FROM DUAL;`
 - `SELECT NOW() FROM DUAL;`
 - `SELECT USER(), DATABASE() FROM DUAL;`
- In MySQL, DUAL keyword is optional.
 - `SELECT 2 + 3 * 4;`
 - `SELECT NOW();`
 - `SELECT USER(), DATABASE();`



SQL functions

- RDBMS provides many built-in functions to process the data.
- These functions can be classified as:
 - Single row functions
 - One row input produce one row output.
 - e.g. ABS(), CONCAT(), IFNULL(), ...
 - Multi-row or Group functions
 - Values from multiple rows are aggregated to single value.
 - e.g. SUM(), MIN(), MAX(), ...
- These functions can also be categorized based on data types or usage.
 - Numeric functions
 - String functions
 - Date and Time functions
 - Control flow functions
 - Information functions
 - Miscellaneous functions



Numeric & String functions

- ABS()
- POWER()
- ROUND(), FLOOR(), CEIL()

- ASCII(), CHAR()
- CONCAT()
- SUBSTRING()
- LOWER(), UPPER()
- TRIM(), LTRIM(), RTRIM()
- LPAD(), RPAD()
- REGEXP_LIKE()





Thank you!

Nilesh Ghule <nilesh@sunbeaminfo.com>

