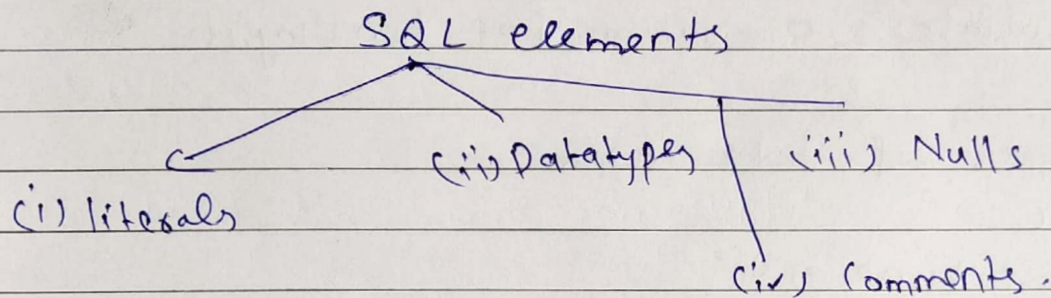


# Simple Queries in SQL

SQL (sequel) was developed in 1970s in IBM laboratory (it is non procedural language)  
↳ means what of the problem

SQL enables (i) creating / modifying a database's structure (ii) changing security setting for system (iii) Querying database (iv) Inserting / modifying / Deleting the database contents.



(i) Literals :- it refers to a fixed data value. The fixed data value may be of character type or numeric literal.

eg. of character 'Shubham', '98', this all enclosed with quotation marks.

• To store apostrophe in a text literal we should use  
'

e.g. to store Kush's in a text literal  
we write 'kush|'s'.

\* that which are not enclosed with Quotation marks are called numeric literal.

- Numeric literal can store maximum 53 digits.
- Text literal can store maximum length of 4000 bytes in MySQL.

## (2) Data types

Data types are means to identify the type of data and associated operation for handling it.

Three types of data types

- (1) Numeric
- (2) Date and Time and
- (3) string types.

(i) INT <sup>if signed then range up to</sup>  
(the allowable range is from -2147483648 to 2147483647)

if unsigned then range up to 0 to 4294967295  
we can specify width of 11 digits.

(ii) TINYINT

(iii) SMALLINT

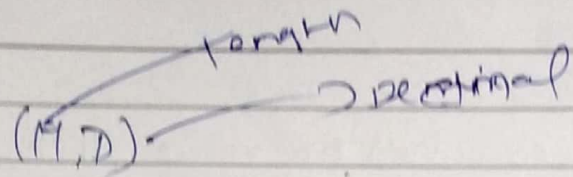
(iv) MEDIUMINT

(v) BIGINT

(vi) FLOAT :- it store decimal digit.  
10 is total number of digit (incl. decimal value)  
2 is for decimal value.

NUMERIC synonym

Decimal

(VII) Double  
(VIII) DECIMAL (M,D) 

## (2) Date and Time types

Date :- format YYYY-MM-DD

Datetime format YYYY-MM-DD HH:MM:SS format.

Timestamp :- without hyphens (-)  
YYYYMMDDHHMMSS

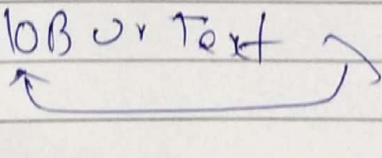
Time :- HH:MM:SS

YEAR(M)-length :- stores in 2 digit and 4 digit format.  
The default length is 4.

## (3) String/Text types.

CHAR(M) Fixed length between 1 and 255 characters.  
Default length will be 1

VARCHAR(M) A variable length string between 1 and 255 characters.  
we must define a length when while using varchar

BLOB or Text  it is used to store large amount of binary data such as images or other types of files.

### (3) Null values.

If a column in a row has no value, then Column is said to be Null or to contain a null, Null can be on any datatype, if we write Not null or Primary key constraint.

- null value is not equivalent to value of Zero.  
✓ is always equivalent to null.

### (4) Comments.

Comment is text that is not executed. It is only for documentation purpose.

We can begin the comment with

/\*...\*/ (Here should no space)

-- (Followed by a space) we can write comment in a next line.

# it is also we can not write on next line.

eg.

```
Select ename, sal, job, loc
```

```
/* ..... Select .....  
*/
```

```
From Emp1
```

```
# Joining two table
```

```
-- condition
```

## SQL command Syntax

The SQL provides a predefined set of commands that help us work on DBMS.

Keywords are used that have special meaning in SQL. They are understood to be instructions.

Command like where, from <sup>→ clause</sup>  
argument from sales <sup>→</sup> here sales is the argument.

## Symbols used in syntax statement

1 → Symbolic way of saying 'or'

[ A SQL statement is completed with ( ;) ]