Union

- we can combine data from two query / multiple query
- In the same tables [one result set]

Column Attributes

- VARCHAR to store string.
- NN (Not Null)
- AI (Auto_Increment) used in Primary key.
-

Inserting a Single Row

- INSERT INTO customers
  VALUES (DEFAULT, _) → can't have duplicate value

Inserting Multiple Rows

- INSERT INTO (specify name column)
  VALUES ___
  (,) → used to insert multiple values.

Inserting Hierarchical Rows

- parent - child relationship
-

Creating a Copy of a table

-

UPDATED single Row	UPDATED MULTIPLE ROW
- UPDATED in ___	- The same.
SET ___	
WHERE ___	

Joining Multiple Table

▶ To simplify [select specified the read to work]

Compound Join conditions

▶ composite primary key (2 columns or more)

▶ Join table to another table

▶ on table . table (example.)
and table . table.

Implicit Join Syntax

▶ don't forget the where clause.
calling (a cross Join)

Outer Join

▶ Left Join → all the record from the left table return wether it is true or not.

▶ Right Join → all the record from the right table return wether it is true or not.

Outer Joins Between Multiple Table :

○ Avoid using [Right Join]

Self Outer Join

→ { use different alias for the same table }

The Using clause

{ column names }

○ If the column have exactly the same.

○ replace the clause [using clause].

Natural Join

○ we don't specified the names.

○ produce a expected result.

Cross Join

○ combination

○ Table of size and colours.

○ type multiple table.

Like Operator (older)

- after like [string and a character (%)]

%	string	%
Before		After

- (%) any number of characters.
- (_) single characters.

REGEXP (Regular Expression)

- Power for searching string.

(^) → beginning of the string.
($) → end of string.
(|) → multiple string. [logical or]
([]) → match any single character listed in the bracket.

Null operator

↳ absence of the value.

ORDER BY CLAUSE

- Assess the sort order (ASC)
-

Limit clause

- Limit (argument)
- Limit (2, 3 → pick 3
  ↳ offset

Inner Joins

- use Alias to simplify code

Joining Across Databases

- prefer the table that are not part of the database.

SELF JOINS

- Joining table to itself used Alias. [simplify]

Select clause

AS (Alias)

Arithmetic Expression [math operations]

- + , - , / , % , *

Non-parsed (SELECT * FROM database)

DISTINCT (keywords)

↳ remove duplicate

Where Clause

Filter data

Ex. condition [evaluate the condition]

- > comparison operator
- >=
- <
- <=
- =
- !=
- <>

Combine multiple search condition — Evaluated first

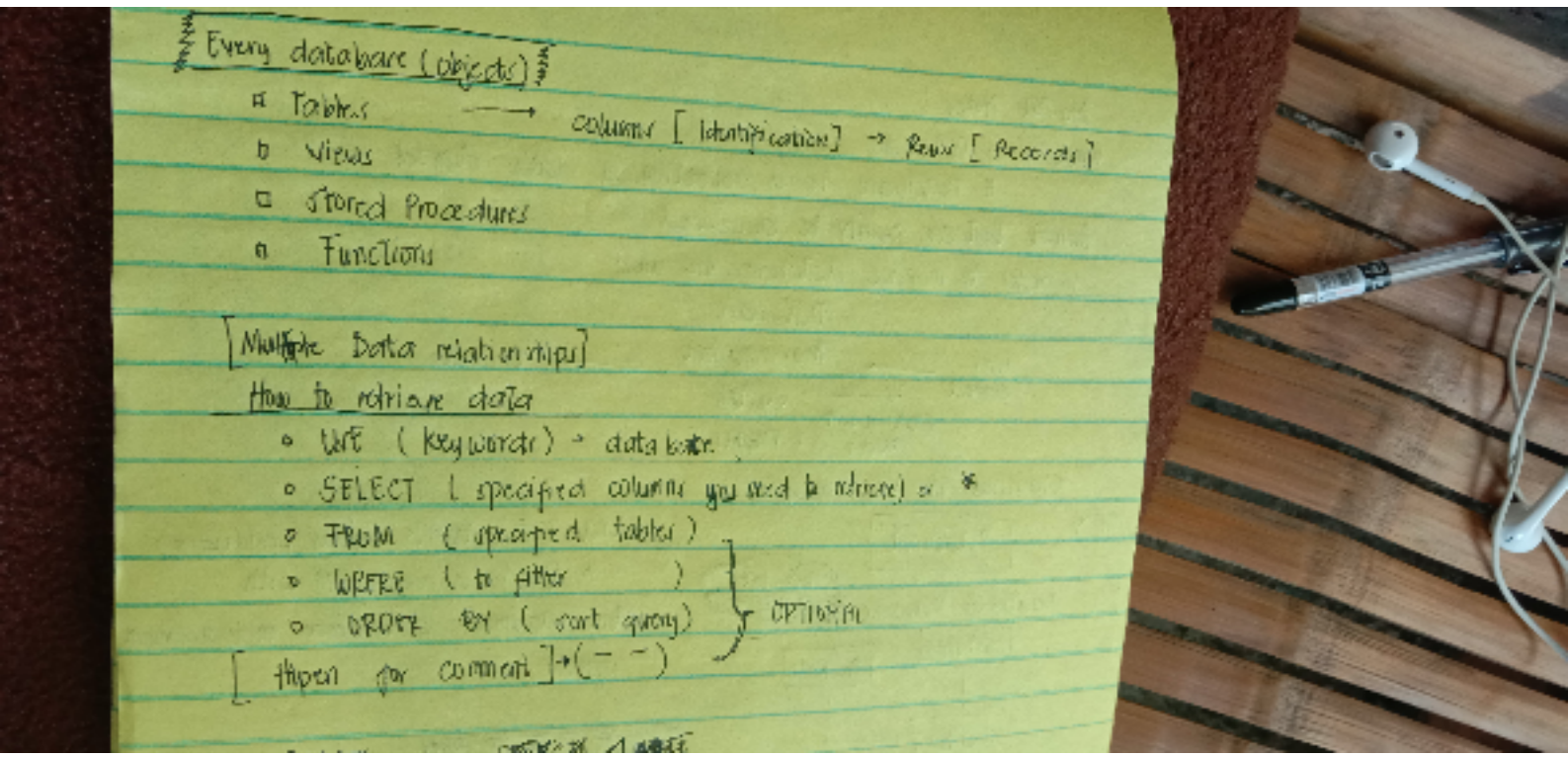
- AND - the condition both are TRUE =
- OR - one of the condition is TRUE !

In Operator

- In sequel can't combine boolean with a string with boolean value.
- combining OR operator (used in)

Between Operator

- compare attribute with range of values used between operator.


Every database (objects)
Tables → columns [identification] → Rows [Records]
Views
Stored Procedures
Functions
[Multiple Data relationships]
How to retrieve data
WHERE (to filter)
ORDER BY (sort query)
OPTIONAL
[then for comments] → (- -)

MySQL Notes

What is a Database

A Database is a collection of data stored in a format that can easily be accessed

In order to manage database we used

User Control → Database Management System (DBMS) → Create

← (send result back)

Classified into two categories

(1) Relational

Relational Database [illegible]

Customers — Products — Orders

SQL (Structured Query Language)

* the language used with the relational database management system

RDBMS

(e) MySQL
SQL Server
Oracle

Structured English Query Language

(2) NoSQL

→ No relationship

→ Easier, Operating and understanding SQL