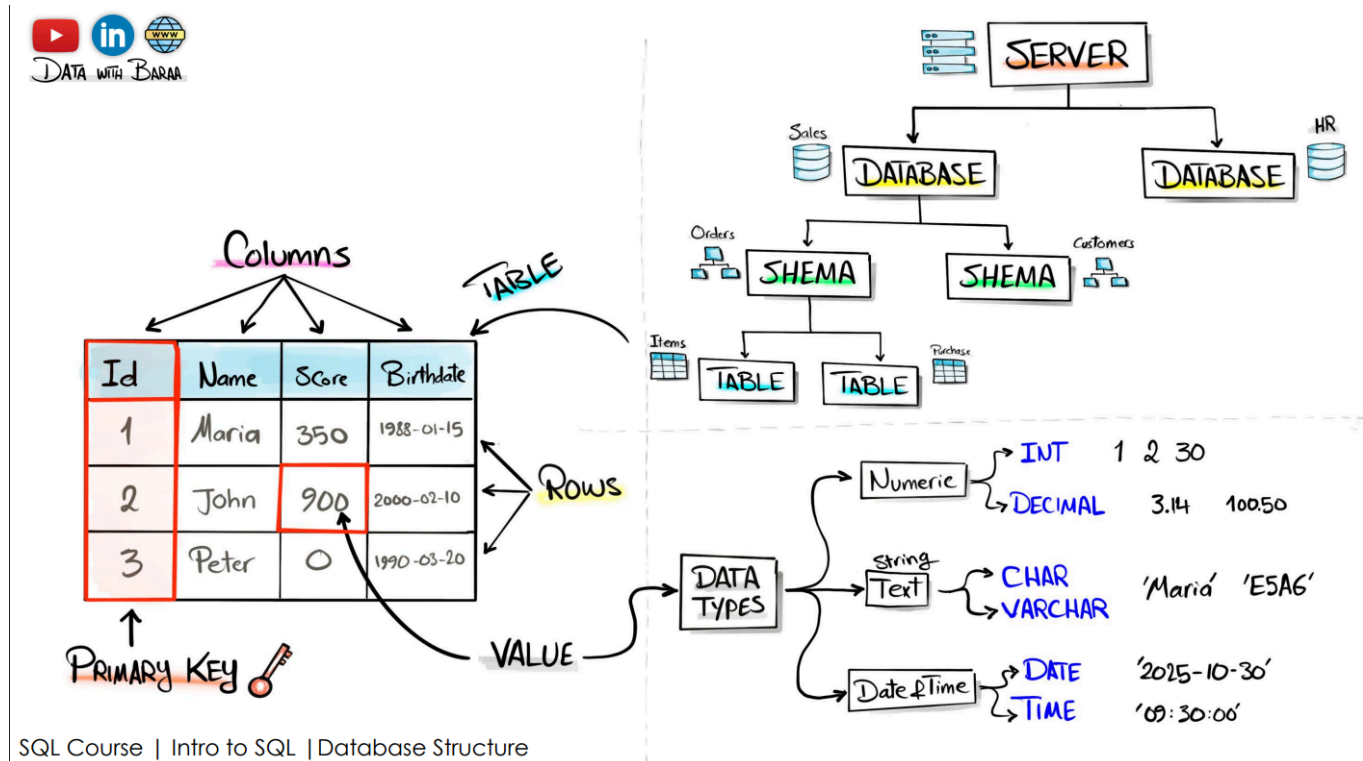


### 3. Database Structure



- An Database System is very structured , and it starts with initially a Physical hardware called **Server** where the database lives .
- Inside a Server , we can have multiple **Databases** which are a container for data.
- In Each Data Base we can have multiple **Schemas** . Schemas are an logical or imaginary container where we can group the tables that are created accordingly.
  - For Example, Under a Schema called Orders - We can put all the tables related to customer orders . Under another Schema called Customers - We can put all the tables related to customer details.
- Inside Schema , we can have multiple objects known as **Tables**
  - Tables are nothing but a spreadsheet which has **Rows** and **Columns** with a **#Primary\_Key** and it organizes the data based on **Columns**. So that each column is about one type of data
  - Columns are also called as **Fields** ; Rows are also called as **Records**.
  - Rows are where actually a data is stored , each row is contains data about a specific person , objects etc.,

**#Primary\_Key :**

- This is a very important column of Values , It is a **Unique Identifier** for each row . Using this only we can join 2 tables , for identifying quickly a needed data etc.,

- There are no 2 Rows having same Primary Key value

Each Cell or Value Stores a specific types of Data :

**1. Numeric Data Type :**

- **INT** --> 1 2 3 ...
- **DECIMAL** --> 3.14 , 100.50 ...

**2. String Data Types :**

- **CHAR** --> Strings or letters that cannot be changed once initialized . A Fixed Character
- **VARCHAR** --> Strings or letters that can be changed anytime we need . A Variable Character

**3. Date & Time Data Types :**

- **DATE** --> 2025-10-30
- **TIME** --> 09:30:00