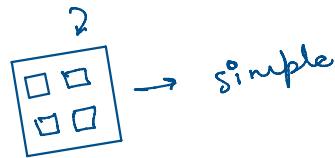


Roadmap

↳ Introduction of SQL



→ simple

↳ Overview & installation

↳ Database

↳ SQL Vs MySQL

↳ Goorm IDE

↳ Creating a database and creating a table

↳ Inserting a data

↳ Multiple Insert ↴ → Syntax

↳ Crud Command

↳ Create

↳ Read → where clause
select

↳ Update →

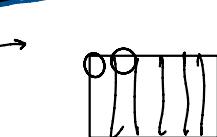
↳ Delete →

SQL → Structured Query Language

— table

↳ String Function

↳ Concat, substring, Replace, reverse



Krishna
anhsixK

1000 rows
above 25k

↳ Selection refining

→ 25k



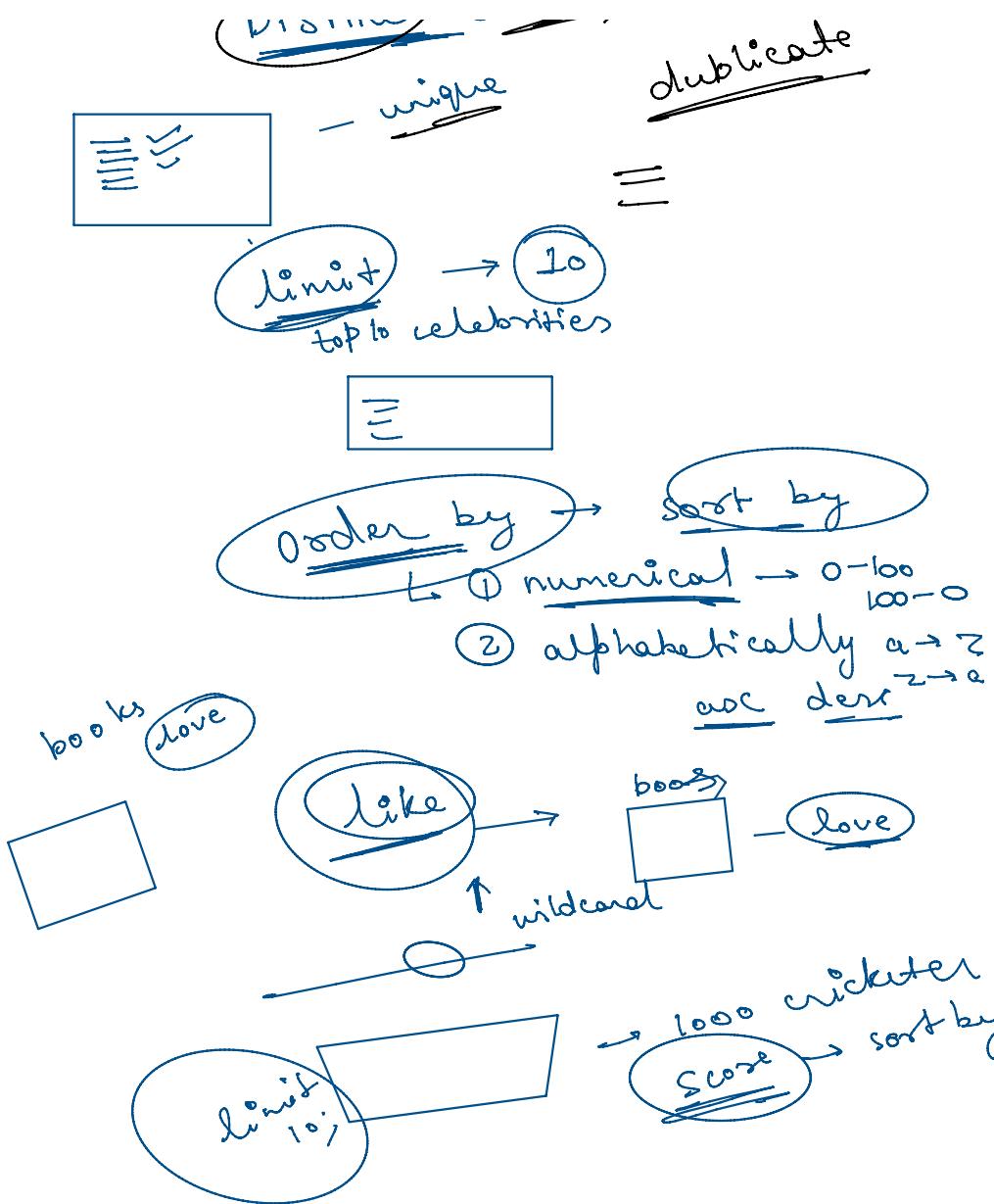
↳ Distinct (unique)

unique

4

↳ same

duplicate



6 Aggregate Functions

- ↳ count
- ↳ group by ↳ 
- ↳ min / max
- ↳ sum / avg

- ## 6 Data Type
- ↳ char vs Varchar — String (text)
 - ↳ float and decimal

- ↳ ~~float~~ and decimal
- ↳ date, time, timestamp
- ↳ Relationship
 - ↳ types of relationship
 - Customer & order
 - tv-series
 - grading
 - ↳ one to one
 - ↳ one to many
 - ↳ many to many

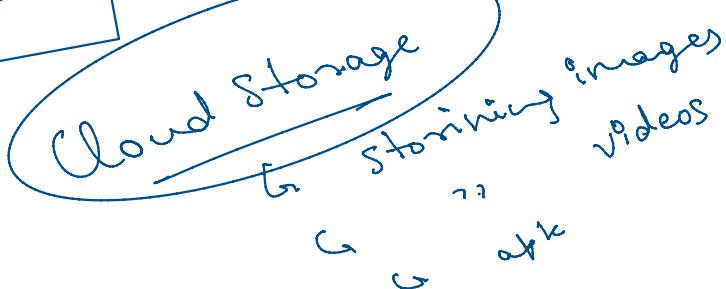
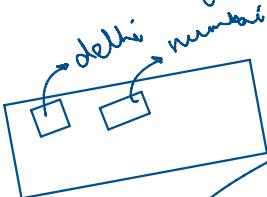


↳ What is database

- ↳ 1. Collection of data

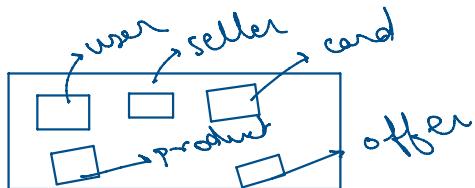
Eg: 1. Phone book

- 2. Marks record



- library management system
libkart, amazon

- Library
- flipkart, amazon



A Quick Example

I.name	f.name	A.code	P.no
Andrews, Archie		- (949) 345-2222	
Cooper, Betty		- (212) 246-9846	
Flanders, Ned		- (415) 987-3451	
Jones, Jughead		- (415) 888-3777	
Lodge, Veronica	✓	- (714) 332-0981	
Snow, Jon		- (949) 621-1908	
Stark, Ned	✓	- (310) 119-6501	

Find Ned Flanders' Phone Number

Find People With First Name "Ned" 3, 7

Find All Phone Numbers With Area Code 415 3, 4

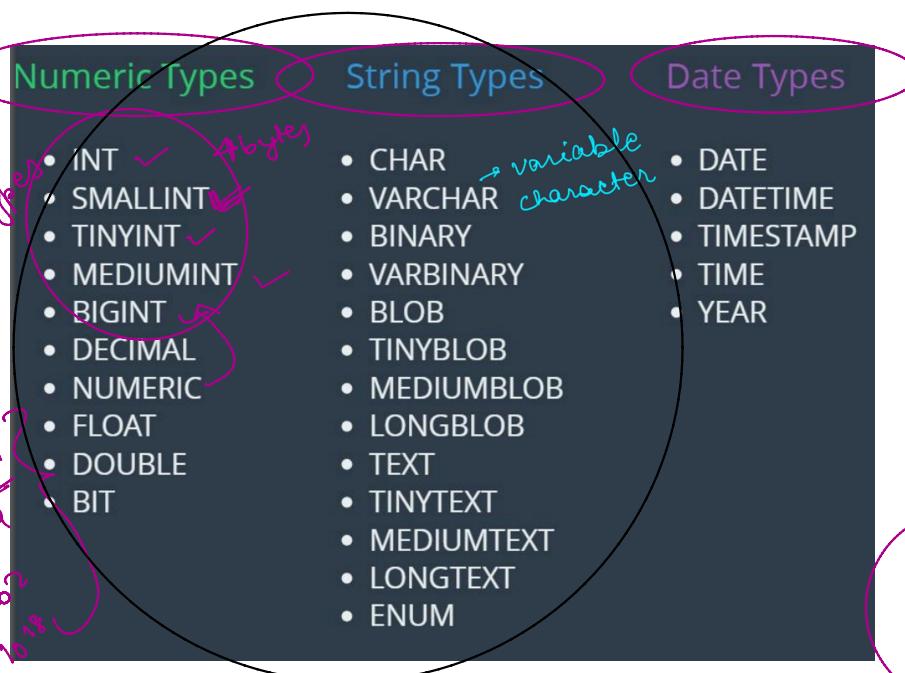
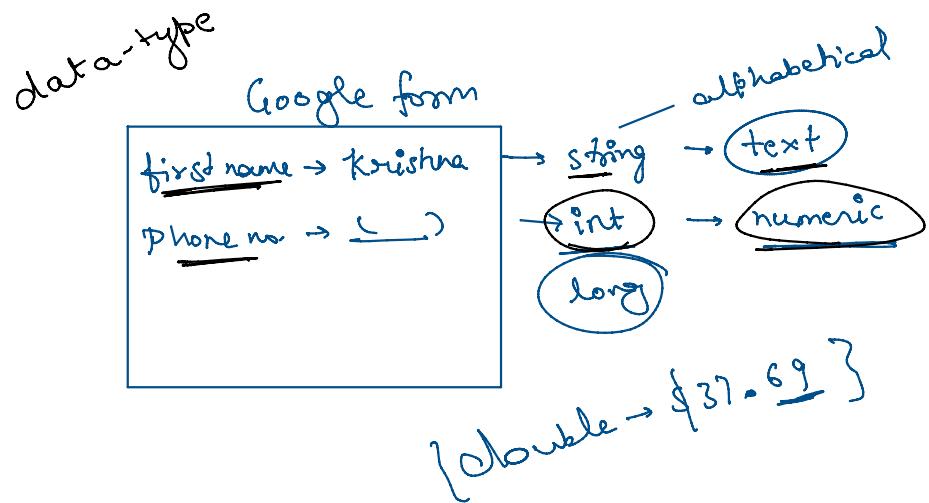
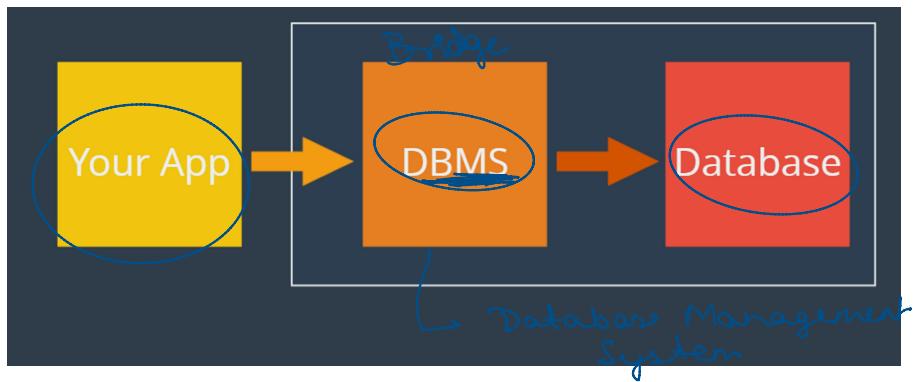
Find All People Who Have a 3-letter First Name 3, 6, 7

char-length {
I.name
f.name}

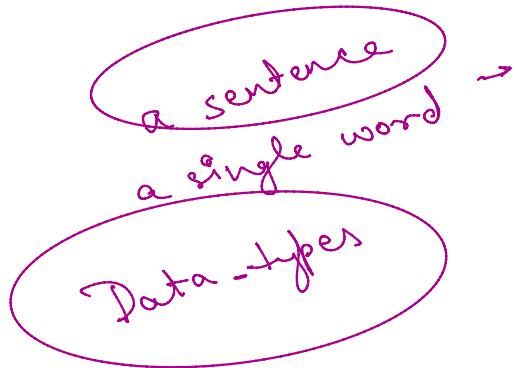


What Is A Database?

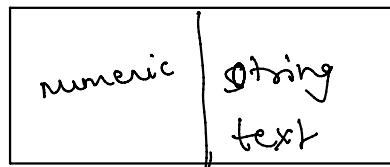
1. A collection of data
2. A method for accessing and manipulating that data } SQL



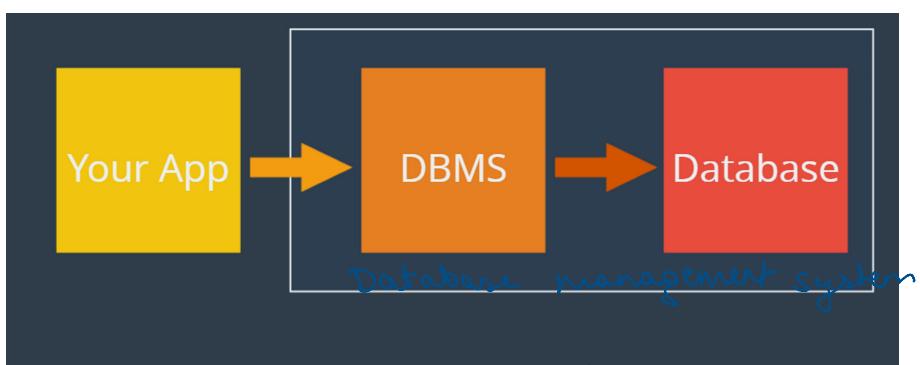
f-name → string → text
Krishna



Data type	Range	Storage
bigint	-2^{63} (-9,223,372,036,854,775,808) to $2^{63}-1$ (9,223,372,036,854,775,807)	8 Bytes
int	2^{31} (-2,147,483,648) to $2^{31}-1$ 1 (2,147,483,647)	4 Bytes
smallint	-2^{15} (-32,768) to $2^{15}-1$ (32,767)	2 Bytes
tinyint	0 to 255	1 Byte



take a break → 9:40



DBMS → Oracle, MySQL, PostgreSQL,
etc. & SQLite

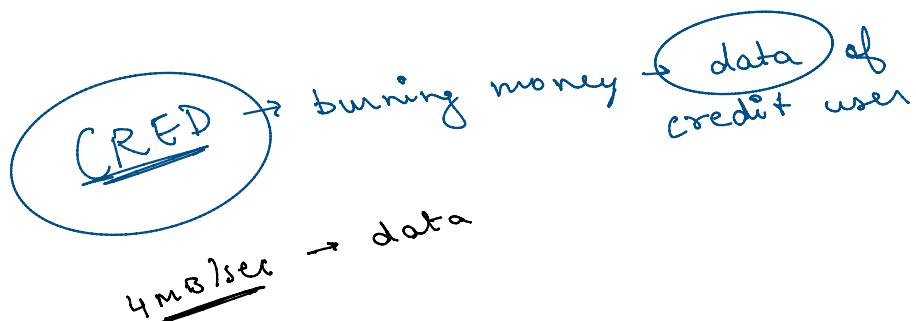
DBMS → Oracle, MySQL, PostgreSQL,
SQL Server, SQLite

→ why data matter?

- ↳ data is knowledge
- ↳ data is money

→ data has played an imp. role in
industries.

→ But now data itself is a huge
booming industry.



↳ SEQUEL → SQL (Structured Query language)

tons of operations

- ↳ creating a database
- ↳ storing data in form of tables
- ↳ modify, extract, and

→ SQL standard in 1986 (ANSI)

— American National Standards Institute

→ SQL standard in 1987 (ISO)
... International Organization

→ SQL standard in 1987 (ISO)
international organization
for standardization.

→ application → Data Scientist, Accountants,
Developers, Business profs.

→ SQL vs MySQL → English

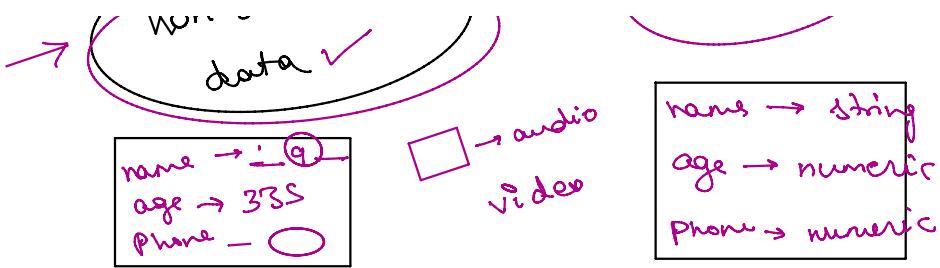
Eg: find all users who are 18 or older.

Use MySQL → Select * from user where age >= 18; mysql
Oracle
SQL Server
SQLite

MySQL ✓
SELECT * FROM Users WHERE Age >= 18;

PostgreSQL ✓
SELECT * FROM Users WHERE Age >= 18;

→ MongoDB vs MySQL — SQL
MongoDB → Backend
real-time data
non-structured data ✓
MySQL → Structured data ✓ formal
... name → string



Create a database
Create a table
Insert some data

CRUD

Recordings
loop

live →

MERN
↑↑↑↑

Join
Union with
find, bring

Java + SQL

~~MERN~~
~~MEAN~~

LAMP
mysql

subqueries
joins

Observe
keyword

M E R N
MongoDB
Backend

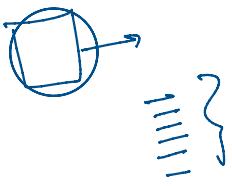
Javascript
Express.js
React.js
Node.js
Frontend
Backend

LAMP
MySQL
M E A N
Angular
HTML
CSS
Javascript

Java C++ C# python

Image

↳ 20,000 words



- Goorm IDE
- Creating & Dropping database/tables