What is a Database? What is MySQL?

Imagine a School... Think of a school. It has: Students Teachers Classes Subjects Marks

All this information needs to be saved somewhere. Like a notebook or register.

But what if there are **1000 students**? What if we want to:

- Find all students in Class 5?
- Know marks of a student?
- Add a new student?
- Remove a student who left?

We can't do this quickly with paper.

What is a Database?

A database is like a super smart digital notebook on a computer.

It stores **data** in a well-organized way so we can:





What is MySQL?

MySQL (say it like "My Ess Que EII") is a tool or software that helps us:

- Create databases
- Store data
- Ask questions to data (called queries)
- **Get answers** super fast

How Data Looks in a Database

Think of a **table** in your school classroom. In MySQL, we also store data in **tables** like this:

ID	Name	Clas s	Marks
1	Meena	5	85
2	Raj	6	90
3	Kavita	5	78

Each table has:

- Rows (like each student)
- Columns (like name, class, marks)

What is SQL?

SQL means **Structured Query Language**.

It's a **language** we use to **talk** to the database.

We use SQL to:

- Add data (INSERT)
- Read data (SELECT)
- Change data (UPDATE)
- Remove data (DELETE)

It's like giving **instructions** to a smart notebook!

Example in Real Life

Imagine you have a **box of toys**. Each toy has:

- Name (Car)
- Type (Vehicle)
- Color (Red)

If you want to find **all red toys**, you search by **color**.

That's how a **database works** – it finds exactly what you need, fast.

How to Install MySQL and Start Using It

Step 1: Install MySQL the Easy Way (with phpMyAdmin)

We will use a **toolkit** called **XAMPP** – it's like a schoolbag that gives you:

- MySQL (for databases)
- phpMyAdmin (for using MySQL like a website)
- Apache (ignore this for now)

XAMPP Setup (For Windows/Mac):

- 1. Go to: 👉 https://www.apachefriends.org/index.html
- 2. Click **Download** for your OS (Windows/Linux/Mac)
- 3. Install it (click next-next-next like installing a game)
- 4. Open XAMPP Control Panel
- 5. Click Start next to:
 - Apache
 - **MySQL**

You're now running your MySQL Server!

Step 2: Open phpMyAdmin (Your Friendly Interface)

- 1. Open your browser (Chrome or Firefox)
- 2. Type: http://localhost/phpmyadmin
- 3. You'll see a web panel that looks like this:

A list of databases on the left and some options on the right

Think of this like the main gate of your database school a

Step 3: Create Your First Database

Let's say we want to store **student info**.

- 1. In phpMyAdmin, click New
- 2. Give it a name: school_database
- 3. Click Create

Step 4: Create a Table Inside the Database

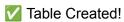
Now let's create a table called **students**.

- 1. Click on school_database from the left panel
- 2. Under Create Table, type:
 - o Table Name: students
 - \circ Number of Columns: 4 \rightarrow Click Go

Now define the columns:

Name	Type	Length	Notes
id	INT	5	Primary key, Auto Increment
name	VARCHAR	100	Student name
class	VARCHAR	10	Class like 4A, 5B
marks	INT	3	Out of 100

Click Save



Step 5: Add Data (Like Adding Students)

Click on **Insert** tab in the students table Now add rows like:

id	name	clas s	marks
1	Meena	5A	85
2	Raj	6B	90
3	Kavita	5A	78

Click Go

✓ You've just added your first data to a database

Step 6: View Your Data

Click on the **Browse** tab You'll see:

id	name	clas s	marks
1	Meena	5A	85
2	Raj	6B	90
3	Kavita	5A	78

👏 This is **real database** work – and you did it!