



MySQL

The image features the MySQL logo in a bold, orange, sans-serif font. The logo is centered on a white background. Above and below the logo are horizontal teal lines. To the left and right of the logo are small, horizontal, olive-green bars.

What is MySQL?

- Relational database management system
- Open-source
- Free
- Ideal for both small and large applications
- Fast, reliable, scalable, and easy to use
- Cross-platform
- Compliant with the ANSI SQL standard

RDBMS

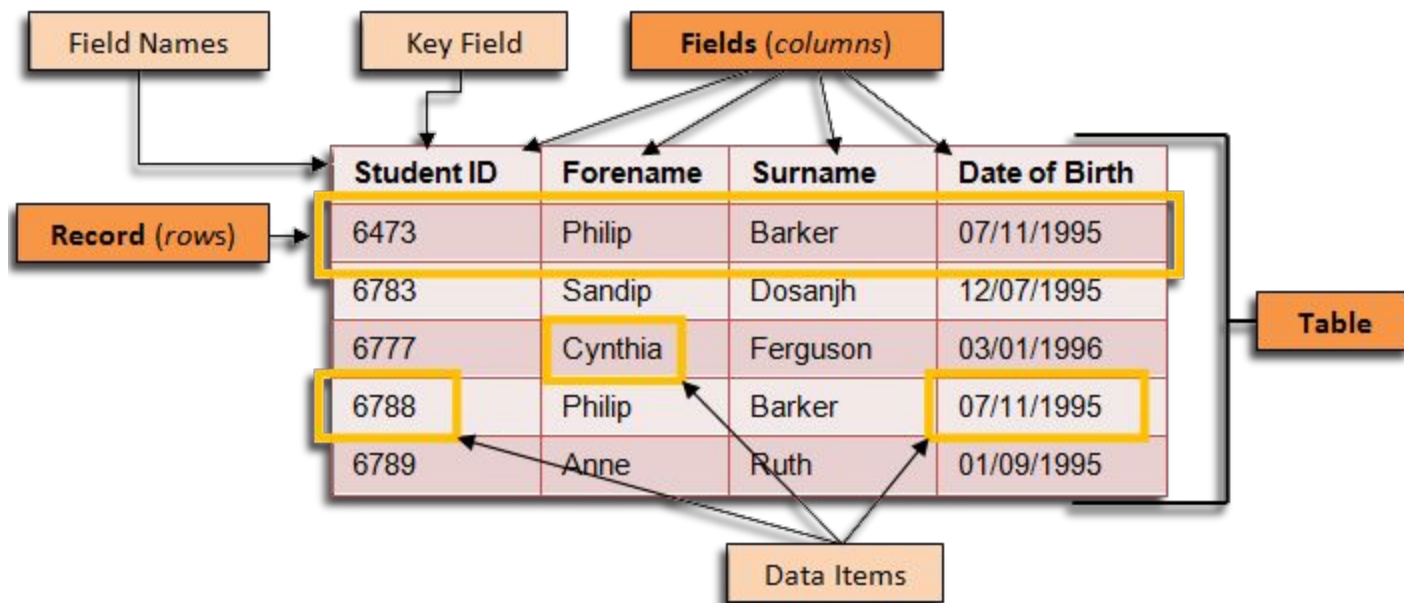
- Relational Database Management System.
- Defines database relationships in the form of tables. The tables are related to each other - based on data common to each.

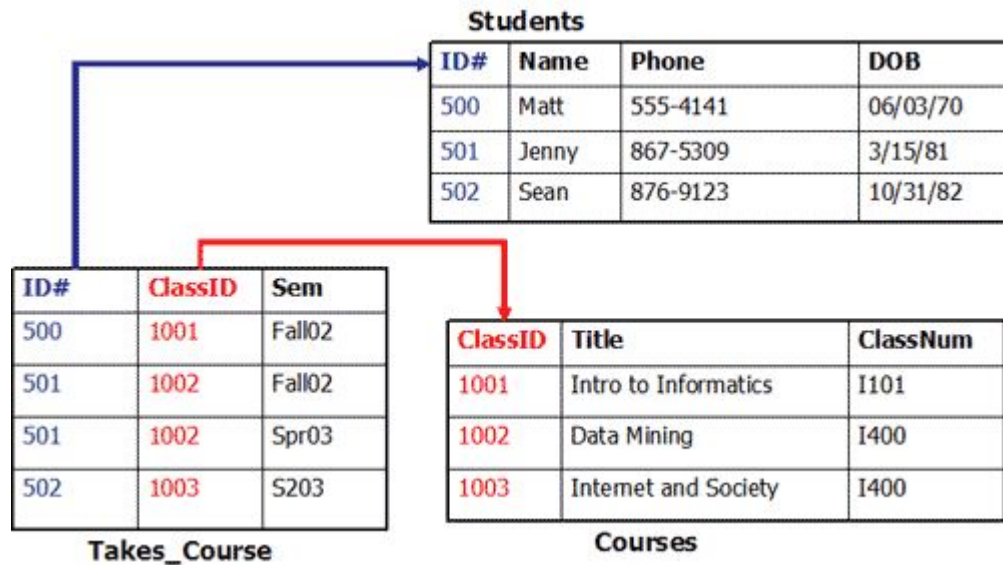
Database Table

A table is a collection of related data entries, and it consists of columns and rows.

SQL

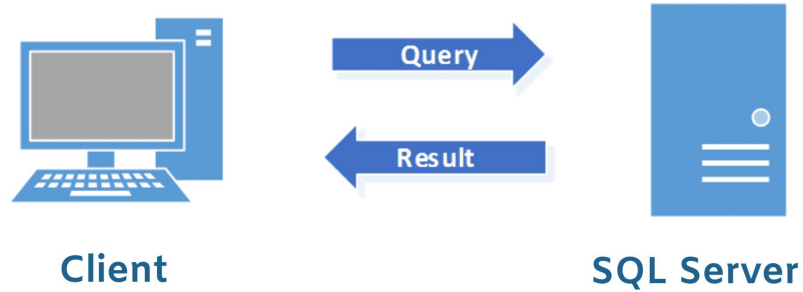
- Standard language for dealing with Relational Databases.





Installation

<https://dev.mysql.com/downloads/installer/>



Specifying Constraints

SQL constraints are used to specify rules for the data in a table.

Constraints are used to limit the type of data that can go into a table. This ensures the accuracy and reliability of the data in the table. If there is any violation between the constraint and the data action, the action is aborted.

Constraints can be column level or table level. Column level constraints apply to a column, and table level constraints apply to the whole table.

The following constraints are commonly used in SQL:

- NOT NULL - Ensures that a column cannot have a NULL value
- UNIQUE - Ensures that all values in a column are different
- PRIMARY KEY - A combination of a **NOT NULL** and **UNIQUE**. Uniquely identifies each row in a table
- FOREIGN KEY - Prevents actions that would destroy links between tables
- CHECK - Ensures that the values in a column satisfies a specific condition
- DEFAULT - Sets a default value for a column if no value is specified
- CREATE INDEX - Used to create and retrieve data from the database very quickly

LIKE

LIKE 'a%'	Finds any values that start with "a"
LIKE '%a'	Finds any values that end with "a"
LIKE '%or%'	Finds any values that have "or" in any position
LIKE '_r%'	Finds any values that have "r" in the second position
LIKE 'a_%'	Finds any values that start with "a" and are at least 2 characters in length
LIKE 'a__%'	Finds any values that start with "a" and are at least 3 characters in length
LIKE 'a%o'	Finds any values that start with "a" and ends with "o"