

# MySQL

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Introduction



# What is MySQL?

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- MySQL is a widely used relational database management system (RDBMS).
- MySQL is free and open-source.
- MySQL is ideal for both small and large applications.



# What is MySQL?

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- MySQL is very fast, reliable, scalable, and easy to use
- MySQL is cross-platform
- MySQL is compliant with the ANSI SQL standard
- MySQL was first released in 1995
- MySQL is developed, distributed, and supported by Oracle Corporation



# Who Uses MySQL?

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- Huge websites like Facebook, Twitter, Airbnb, Booking.com, Uber, GitHub, YouTube, etc.
- Content Management Systems like WordPress, Drupal, Joomla!, Contao, etc.
- A very large number of web developers around the world



# What is RDBMS?

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- RDBMS stands for Relational Database Management System.
- RDBMS is a program used to maintain a relational database.
- RDBMS is the basis for all modern database systems such as MySQL, Microsoft SQL Server, Oracle, and Microsoft Access.
- RDBMS uses SQL queries to access the data in the database.



# What is a Database Table?

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- A table is a collection of related data entries, and it consists of columns and rows.
- A column holds specific information about every record in the table.
- A record (or row) is each individual entry that exists in a table.



# What is a Database Table?

- Look at a selection from the Northwind "Customers" table:

CustomerID	CustomerName	ContactName	Address	City	PostalCode	Country
1	Alfreds Futterkiste	Maria Anders	Obere Str. 57	Berlin	12209	Germany
2	Ana Trujillo Emparedados y helados	Ana Trujillo	Avda. de la Constitución 2222	México D.F.	05021	Mexico
3	Antonio Moreno Taquería	Antonio Moreno	Mataderos 2312	México D.F.	05023	Mexico
4	Around the Horn	Thomas Hardy	120 Hanover Sq.	London	WA1 1DP	UK
5	Berglunds snabbköp	Christina Berglund	Berguvsvägen 8	Luleå	S-958 22	Sweden



# What is a Relational Database?

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- A relational database defines database relationships in the form of tables. The tables are related to each other - based on data common to each.
- Look at the following three tables "Customers", "Orders", and "Shippers" from the Northwind database:



# What is a Relational Database?

- Customers Table

CustomerID	CustomerName	ContactName	Address	City	PostalCode	Country
1	Alfreds Futterkiste	Maria Anders	Obere Str. 57	Berlin	12209	Germany
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# What is a Relational Database?

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- The relationship between the "Customers" table and the "Orders" table is the CustomerID column:
- **Orders Table**

OrderID	CustomerID	EmployeeID	OrderDate	ShipperID
10278	5	8	1996-08-12	2
10280	5	2	1996-08-14	1
10308	2	7	1996-09-18	3
10355	4	6	1996-11-15	1
10365	3	3	1996-11-27	2
10383	4	8	1996-12-16	3
10384	5	3	1996-12-16	3



# What is a Relational Database?

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- The relationship between the "Orders" table and the "Shippers" table is the ShipperID column:
- **Shippers Table**

ShipperID	ShipperName	Phone
1	Speedy Express	(503) 555-9831
2	United Package	(503) 555-3199
3	Federal Shipping	(503) 555-9931