Working with Databases in PHP

GETTING STARTED

Reza Salehi
CLOUD CONSULTANT

@zaalion linkedin.com/in/rezasalehi2008

Overview

PHP is open source

Getting the most out of this course

What to expect from this course?

We will use diverse databases

Demo:

- Setting up MySQL
- PHP and MySQL in action

Introduction on PHP

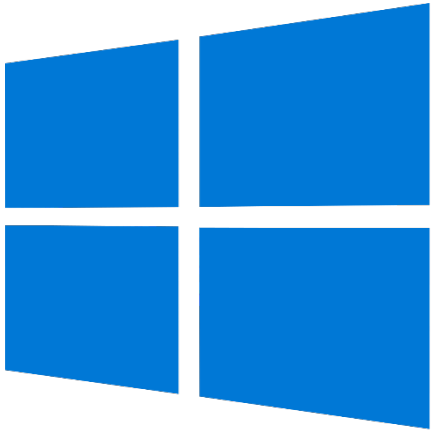
PHP

"Is a general-purpose scripting language that is especially suited to web development."

wikipedia.org/wiki/PHP

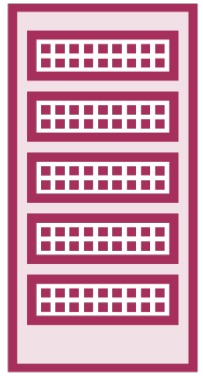
PHP is open source, giving you multiple solutions for a task!

Installing PHP



Hosting PHP Websites

Local Machine



Your Data Center

Cloud

Host PHP Websites in Cloud!

Google GCP

Amazon AWS

Microsoft Azure

We will use a Windows machine in this course.

Getting the Most out of This Course

Setup PHP

You already know how to setup PHP on your machine

PHP fundamentals

Already know the Syntax, IDE of choice, language elements

PHP and Database Support

PHP can work with several database engines...

Database to Discuss

Relational

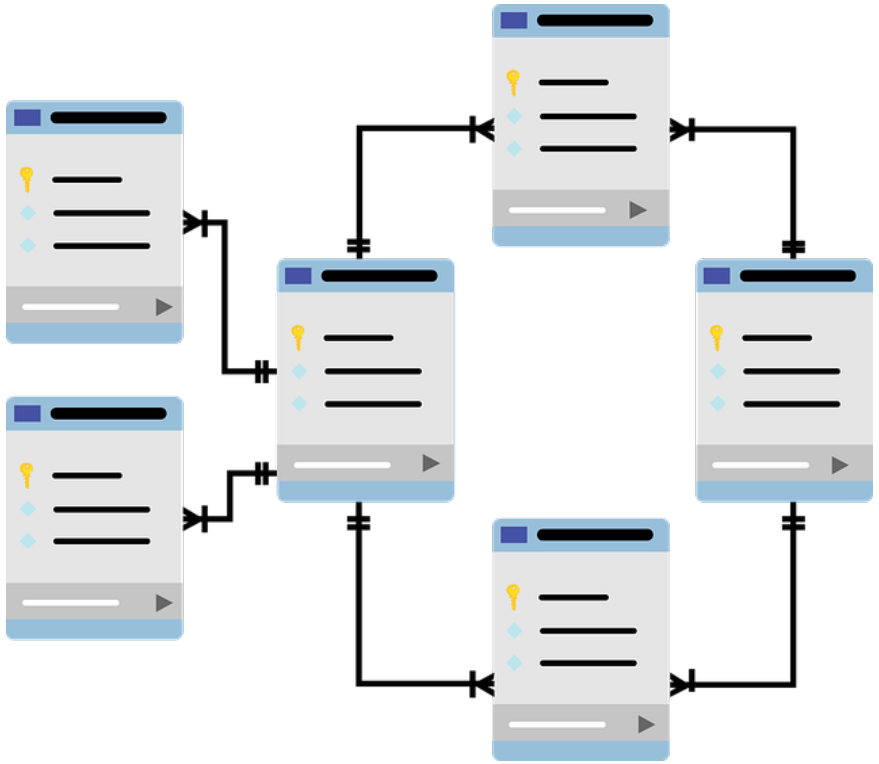
Data is structured into multiple related tables with fixed columns.

NoSQL

Data is structured by means other than tabular relations. Many offerings out there!

NoSQL Databases

Flat files	Document	Key-value pair
Graph	Cache	Wide Column



```
{
    "person": {
        "name": "John Smith",
        "address": {
            "streetAddress": "#1, 1 sample street",
            "city" : "Boston",
            "country": "USA"
        }
    }
}
```

NoSQL

Such databases have existed since the late 1960s, not referred to as "NoSQL“

NoSQL databases are increasingly used in big data, IoT and real-time web applications

The data structures used by NoSQL databases include key-value, wide-column, graph, and document such as JSON

Simplicity of design, simpler horizontal scaling and finer control over availability

Why to Choose NoSQL over Relational?

Easier modeling

No need to define the schema first, easier to update as data and requirements change

Data structure

Designed to handle unstructured data, which makes up much of today's data

Scaling

Much cheaper to scale a NoSQL database, scaling out over cheap servers

Which Database Would You Choose?

Data to Store	Database Type
Accounting software	Relational (fixed columns, low traffic)
Website cache	NoSQL (key-value structure)
Social media platform	NoSQL (graph)
Web platform with billions of users	NoSQL (performance and scalability)
Highly distributed relational data	Both (can store relational data in NoSQL)
Sensor data from thousands of IoT devices	NoSQL (dynamic fields, high volume, JSON)

Database to Discuss in This Course

Relational

NoSQL

Relational Databases to Use in This Course

NoSQL Database to Use in This Course

Setting up Development Environment

Start with a working PHP environment.

Setup Your Database Locally

Install Database Engine

Install Database management tool

Search this Manual

Documentation Home

MySQL Installation Guide

- Preface and Legal Notices
- Installing and Upgrading MySQL
- General Installation Guidance
- Installing MySQL on Unix/Linux Using Generic Binaries
- Installing MySQL from Source
- Installing MySQL on Microsoft Windows
- Installing MySQL on macOS
- Installing MySQL on Linux
- Installing MySQL on Solaris
- Postinstallation Setup and Testing
- Upgrading MySQL
- Downgrading MySQL
- Environment Variables
- Perl Installation Notes

MySQL Installation Guide

Abstract

This is the MySQL Installation Guide from the MySQL 5.7 Reference Manual.

For legal information, see the Legal Notices.

For help with using MySQL, please visit the MySQL Forums, where you can discuss your issues with other MySQL users.

Document generated on: 2020-08-15 (revision: 67020)

Table of Contents

MariaDB

Get Started for Free

Test Drive MariaDB Server Today.

MariaDB Server, with its continual open source innovation, is a modern relational database that business can count on – with features you can't find in MySQL or Postgres. In fact, MariaDB Server 10.5 is the leading open source database. Its list of features include:

- Columnar analytics at scale
- Temporal tables (system-versioned and application-time)
- Instant schema changes: ADD COLUMN, DROP COLUMN and MODIFY COLUMN
- PL/SQL and JSON support
- Versatility through purpose-built storage engines
- Data obfuscation and full/partial data masking

Test out the community version of MariaDB Server today – and when you're ready for production, transition to the new MariaDB Enterprise Server, a hardened version engineered specifically for production deployments.

Download MariaDB Server 10.5

First Name: *

Last Name: *

Job Title: *

Business Email: *

Company Name: *

Country: *

-- Please Select --

Business Phone:

Bringing MySQL to the web

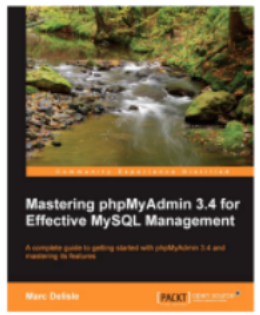
Download 5.0.2

Try demo

Donate

About

phpMyAdmin is a free software tool written in PHP, intended to handle the administration of MySQL over the Web. phpMyAdmin supports a wide range of operations on MySQL and MariaDB. Frequently used operations (managing databases, tables, columns, relations, indexes, users, permissions, etc) can be performed via the user interface, while you still have the ability to directly execute any SQL statement.



phpMyAdmin comes with a wide range of documentation and users are welcome to update our wiki pages to share ideas and howtos for various operations. The phpMyAdmin team will try to help you if you face any problem; you can use a variety of support channels to get help.

phpMyAdmin is also very deeply documented in a book written by one of the developers – Mastering phpMyAdmin for Effective MySQL Management, which is available in English and Spanish.

To ease usage to a wide range of people, phpMyAdmin is being translated into 72 languages and supports both LTR and RTL languages.

phpMyAdmin is a mature project with a stable and flexible code base; you can find out more about the project and its history and the awards it earned. When the project turned 15, we published a celebration page.

The phpMyAdmin project is a member of Software Freedom Conservancy. SFC is a not-for-profit organization that helps promote, improve, develop, and defend Free, Libre, and Open Source Software (FLOSS) projects.

Features

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Part of the Azure SQL family, Azure SQL Database is the intelligent, scalable, relational database service built for the cloud. It's evergreen and always up to date, with AI-powered and automated features that optimise performance and durability for you. Serverless compute and Hyperscale storage options automatically scale resources on demand, so you can focus on building new applications without worrying about storage size or resource management.

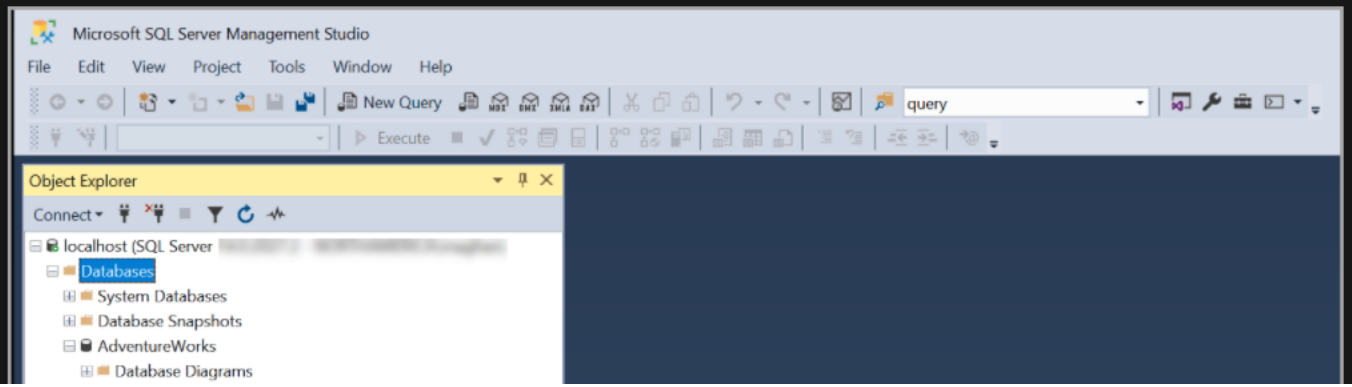
What is SQL Server Management Studio (SSMS)?

09/11/2019 • 4 minutes to read • +8

Applies to: SQL Server (all supported versions) Azure SQL Database Azure SQL Managed Instance Azure Synapse Analytics

SQL Server Management Studio (SSMS) is an integrated environment for managing any SQL infrastructure. Use SSMS to access, configure, manage, administer, and develop all components of SQL Server, Azure SQL Database, and SQL Data Warehouse. SSMS provides a single comprehensive utility that combines a broad group of graphical tools with a number of rich script editors to provide access to SQL Server for developers and database administrators of all skill levels.

- **Download SQL Server Management Studio (SSMS)**
- **Download SQL Server Developer**
- **Download Visual Studio**

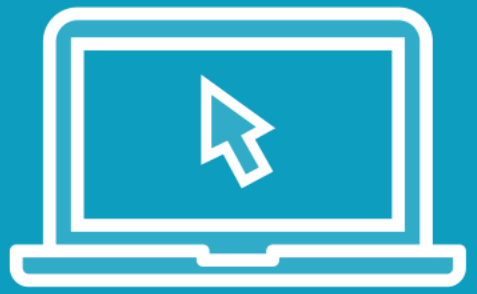


Demo

Setting up MySQL locally

- Installing the MySQL server

Demo



Setting up MySQL locally

- Installing PHPMyAdmin

Demo

Working with MySQL in PHP

Summary

PHP is open source

Getting the most out of this course

What to expect from this course?

We will use diverse databases

- Relational and non-relational

Demo:

- Setting up MySQL
- Working with MySQL in PHP