Introducing PHP & MySQL

The most appealing modern websites provide a customized user experience by dynamically responding to some current conditions – user name, time of day, latest blog, shopping cart contents, etc. Many of these dynamic websites are created with PHP and MySQL.

What is PHP?

PHP is a widely-used general purpose scripting language that is especially suited for web development, and can be embedded into HTML. It was created by programmer Rasmus Lerdorf as a set of scripts to maintain his website that he released as "Personal Home Page Tools (PHP Tools) version 1.0" on June 8, 1995. These were extended in the version 2 release of 1997, and the name changed to become a recursive acronym "PHP: Hypertext Preprocessor" in version 3 the following year. Performance, reliability, and extensibility were improved in 2000 with the release of PHP4, which was powered by the new Zend engine – a virtual machine. The current version, PHP5, is powered by the Zend II engine and produced as free software by the PHP group. Today, PHP is installed on over 20 million websites and 1 million web servers.
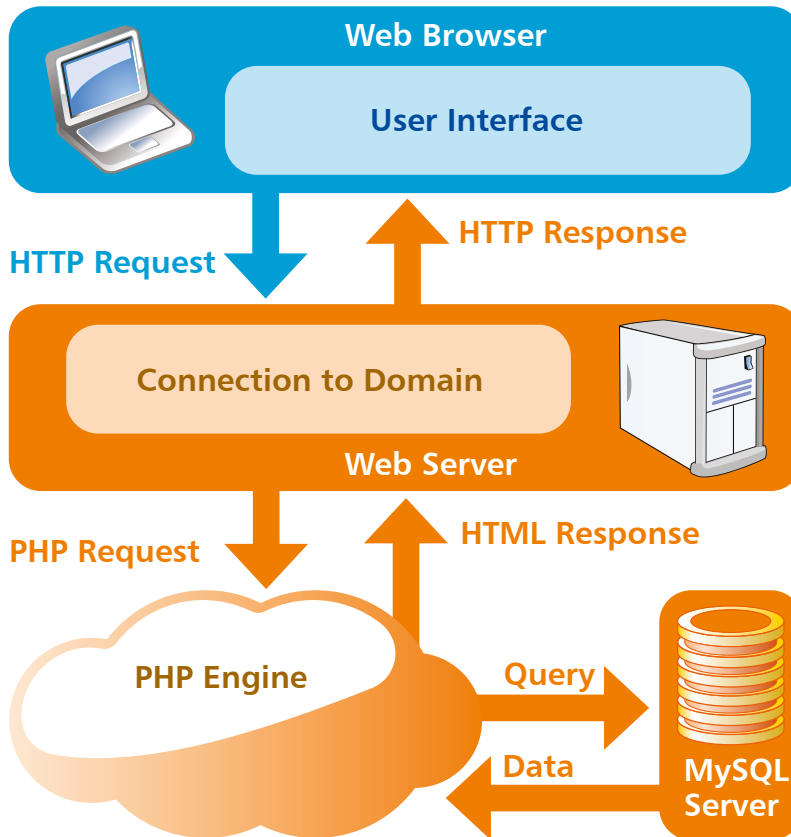
What is MySQL?

MySQL is the world's most popular database software. It is used to manage stored data and is described as DataBase Management Software (DBMS) or Relational DataBase Management Software (RDBMS). MySQL was created by Michael Wildenius and David Axmark back in 1995. Its name ("My-S-Q-L" officially, but often pronounced "My Sequel") is a combination of Michael's daughter's name "My" and the term "SQL" (Structured Query Language). MySQL was originally produced by the company MySQL AB, founded by its creators, which was acquired by Sun Microsystems in 2008, and subsequently by Oracle in 2010. The current version, MySQL 8.0, is powered by the InnoDB storage engine, and the MySQL Community Server edition is available as free software. Today, MySQL is used on some of the most frequently visited websites, including Google, Wikipedia, Facebook and Twitter.

It is important to recognize that PHP and MySQL are both "server-side" technologies – that is to say they reside on the web server. They are not "client-side" technologies resident on the user's computer. So their magic takes place in "The Cloud".

Understanding The Cloud

Whenever a user asks to view a web page in their browser it requests the page from the web server, and receives the page in response, via the HTTP protocol. Where a web page contains PHP script, the web server may first call upon the PHP engine to process the code and, if required, request data from a MySQL database before sending the response to the browser.

HTTP (HyperText Transfer Protocol) is the common communication standard that allows any computer connected to any web server to access files across the web.

The examples in this book are created and tested with the listed software versions but may require modification for other versions.

The ensuing pages describe how to create a development environment for data-driven websites by installing the following server-side technologies on your own computer:

- Web Server – Abyss Web Server X1 Free Personal Edition
- PHP Engine – PHP 7.2.4
- MySQL Server – MySQL Community Server 8.0.11