

PHP, Apache, and MySQL

What happens when a web page requests information from a database?

Commonly databases are stored on servers that are separate from the web server itself.

Does the request for data come from the web server or from the PHP processor?

Since the SQL statements are contained within the PHP code itself, the PHP processor sends the SQL statements to the Database Management System (MySQL) to be processed.

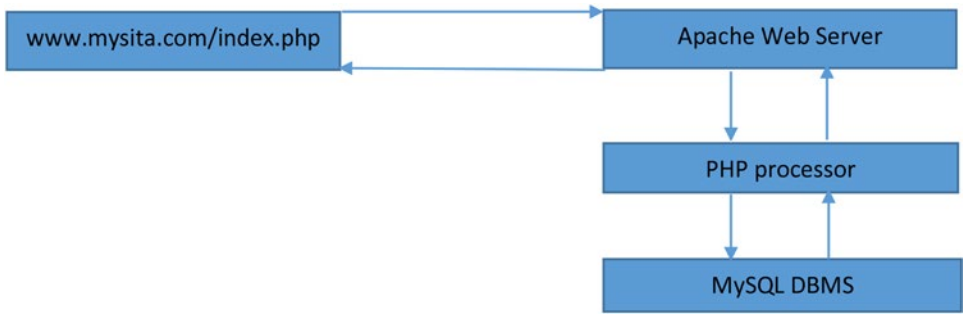


Figure 1-15. Requesting a PHP web page that retrieves information from a MySQL database

SQL—Structured Query Language is a special language used to update, insert, or delete data from a DBMS (Database Management System). A DBMS is an application that interacts with a program language and a database to update, insert, or delete data. The DBMS uses SQL to interpret the required changes to the data within the database. For more information on SQL, visit <http://en.wikipedia.org/wiki/SQL>. For more information on DBMS, visit <http://en.wikipedia.org/wiki/Database>.

The Apache server will first discover that PHP code must be interpreted. The PHP code will then be sent to the PHP processor. The PHP processor interprets the code (line by line). While doing so, it will discover that SQL statements must be executed against a database. The SQL statements are then transferred to the appropriate Database Management System (DBMS) for processing. The DBMS will return the results of the execution of the SQL statements to the PHP processor. The PHP processor will then use those results to format output to be given to the Apache server. The Apache server will then combine the results of what is returned by the PHP processor with any other HTML (and/or JavaScript) code that might reside on the original page requested and return all output to the browser on the user’s machine. The browser will then interpret the HTML and JavaScript to display the results of the page requested.

Did you catch all of that?

Let’s look at a “real-world” example, shown in Figure 1-16.

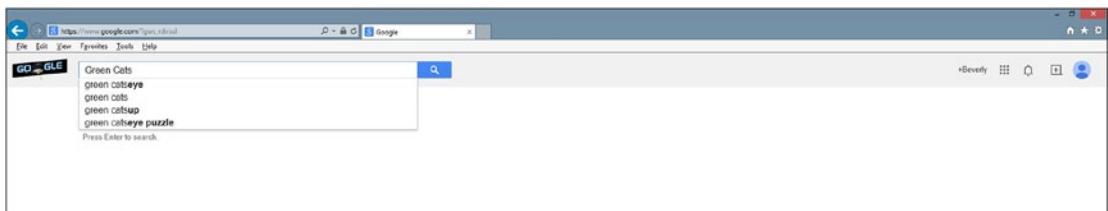


Figure 1-16. Google.com search for “green cats” (11/12/14)