

- ▶ Accessing a MySQL Database with PHP

# 19.9 Reading from a Database

- ▶ Function `mysql_connect` connects to the MySQL database. It takes three arguments—
  - the server's hostname
  - a username
  - a passwordand returns a database handle—a representation of PHP's connection to the database, or `false` if the connection fails.
- ▶ Function `mysql_select_db` selects and opens the database to be queried.
- ▶ The function returns `true` on success or `false` on failure.



# 19.9 Reading from a Database (Cont.)

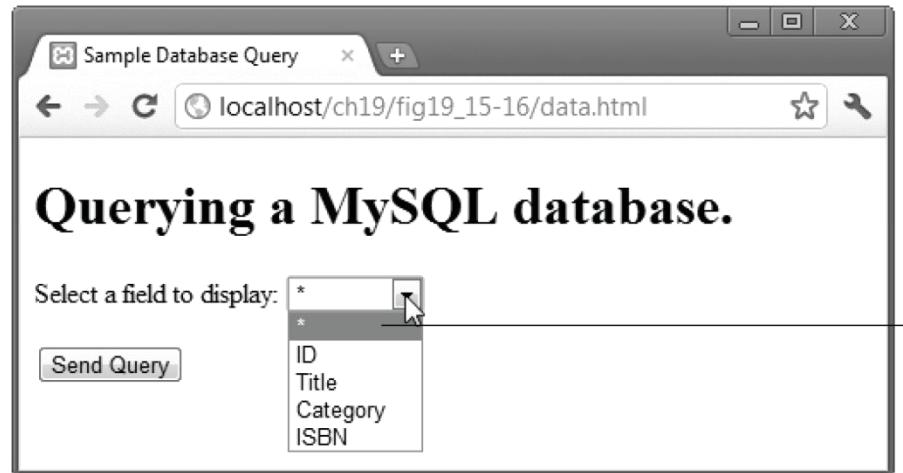
- ▶ To query the database, we call function `mysql_query`, specifying the query string and the database to query.
- ▶ This returns a resource containing the result of the query, or false if the query fails.
- ▶ It can also execute SQL statements such as `INSERT` or `DELETE` that do not return results.
- ▶ The `mysql_error` function returns any error strings from the database.
- ▶ `mysql_close` closes the connection to the database specified in its argument.
- ▶ The `mysql_fetch_row` function returns an array containing the values for each column in the current row of the query result (`$result`).



```
1  <!DOCTYPE html>
2
3  <!-- Fig. 19.15: data.html -->
4  <!-- Form to query a MySQL database. -->
5  <html>
6      <head>
7          <meta charset = "utf-8">
8          <title>Sample Database Query</title>
9      </head>
10     <body>
11         <h1>Querying a MySQL database.</h1>
12         <form method = "post" action = "database.php">
13             <p>Select a field to display:
14                 <!-- add a select box containing options -->
15                 <!-- for SELECT query -->
16                 <select name = "select">
17                     <option selected>*</option>
18                     <option>ID</option>
19                     <option>Title</option>
20                     <option>Category</option>
21                     <option>ISBN</option>
22                 </select></p>
```

**Fig. 19.15** | Form to query a MySQL database. (Part 1 of 2.)

```
23      <p><input type = "submit" value = "Send Query"></p>
24  </form>
25 </body>
26 </html>
```



Sample Database Query

localhost/ch19/fig19\_15-16/data.html

## Querying a MySQL database.

Select a field to display:

- \*
- \*
- ID
- Title
- Category
- ISBN

Send Query

>Selecting this option results in all columns being displayed

**Fig. 19.15** | Form to query a MySQL database. (Part 2 of 2.)



```
1  <!DOCTYPE html>
2
3  <!-- Fig. 19.16: database.php -->
4  <!-- Querying a database and displaying the results. -->
5  <html>
6      <head>
7          <meta charset = "utf-8">
8          <title>Search Results</title>
9          <style type = "text/css">
10             body { font-family: sans-serif;
11                 background-color: lightyellow; }
12             table { background-color: lightblue;
13                 border-collapse: collapse;
14                 border: 1px solid gray; }
15             td { padding: 5px; }
16             tr:nth-child(odd) {
17                 background-color: white; }
18         </style>
19     </head>
20     <body>
21         <?php
22             $select = $_POST["select"]; // creates variable $select
23
```

**Fig. 19.16** | Querying a database and displaying the results. (Part I of 4.)



```
24 // build SELECT query
25 $query = "SELECT " . $select . " FROM books";
26
27 // Connect to MySQL
28 if ( !( $database = mysql_connect( "localhost",
29 "iw3http", "password" ) ) )
30     die( "Could not connect to database </body></html>" );
31
32 // open Products database
33 if ( !mysql_select_db( "products", $database ) )
34     die( "Could not open products database </body></html>" );
35
36 // query Products database
37 if ( !( $result = mysql_query( $query, $database ) ) )
38 {
39     print( "<p>Could not execute query!</p>" );
40     die( mysql_error() . "</body></html>" );
41 } // end if
42
43 mysql_close( $database );
44 ?><!-- end PHP script -->
```

**Fig. 19.16** | Querying a database and displaying the results. (Part 2 of 4.)



```
45 <table>
46     <caption>Results of "SELECT <?php print( "$select" ) ?>
47         FROM books"</caption>
48     <?php
49         // fetch each record in result set
50         while ( $row = mysql_fetch_row( $result ) )
51         {
52             // build table to display results
53             print( "<tr>" );
54
55             foreach ( $row as $key => $value )
56                 print( "<td>$value</td>" );
57
58             print( "</tr>" );
59         } // end while
60     ?><!-- end PHP script -->
61 </table>
62 <p>Your search yielded
63     <?php print( mysql_num_rows( $result ) ) ?> results.</p>
64 <p>Please email comments to <a href = "mailto:deitel@deitel.com">
65     Deitel and Associates, Inc.</a></p>
66 </body>
67 </html>
```

**Fig. 19.16** | Querying a database and displaying the results. (Part 3 of 4.)

Search Results

localhost/ch19/fig19\_15-16/database.php

Results of "SELECT \* FROM books"

1	Visual Basic 2010 How to Program	Programming	0132152134
2	Visual C# 2010 How to Program	Programming	0132151421
3	Java How to Program	Programming	0132575663
4	C++ How to Program	Programming	0132662361
5	C How to Program	Programming	0136123562
6	Internet & World Wide Web How to Program	Programming	0132151006
7	Operating Systems	Operating Systems	0131828274

Your search yielded 7 results.

Please email comments to [Deitel and Associates, Inc.](#)

**Fig. 19.16** | Querying a database and displaying the results. (Part 4 of 4.)