



19

- ▶ 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.)



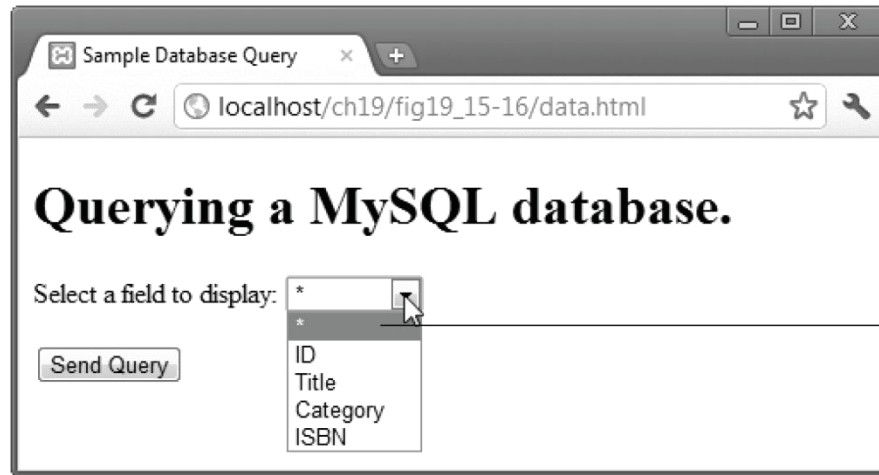
- ▶ To query the database, we call function `mysql_query`, specifying the query string and the database to query.
- ▶ This returns a resource containing the result of the query, or false if the query fails.
- ▶ It can also execute SQL statements such as `INSERT` or `DELETE` that do not return results.
- ▶ 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 I of 2.)

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



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.)



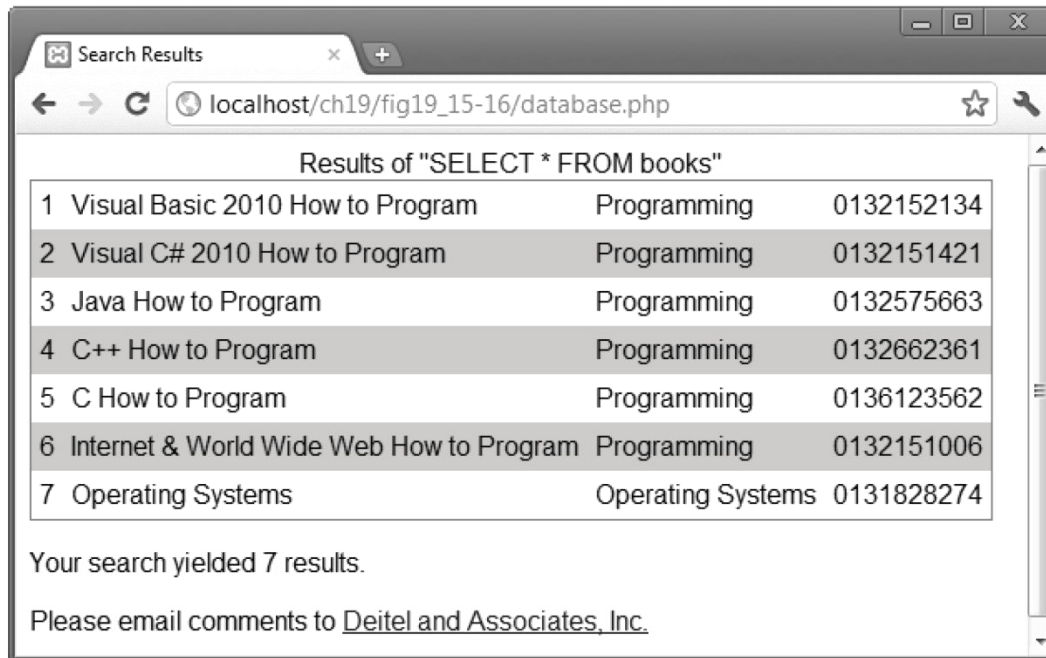
```
24 // build SELECT query
25 $query = "SELECT " . $select . " FROM books";
26
27 // Connect to MySQL
28 if ( !( $database = mysql_connect( "localhost",
29 "iw3htp", "password" ) ) )
30     die( "Could not connect to database </body></html>" );
31
32 // open Products database
33 if ( !mysql_select_db( "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.)



The screenshot shows a web browser window with the title "Search Results". The address bar displays "localhost/ch19/fig19_15-16/database.php". The main content area shows the results of a SQL query: "Results of 'SELECT * FROM books'". The results are presented as a table with 7 rows. Each row contains a number, a book title, a category, and an ID. Below the table, it says "Your search yielded 7 results." and "Please email comments to [Deitel and Associates, Inc.](#)".

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.)