

Chapter 20

A database-driven web site



Murach's PHP and MySQL (3rd Ed.)

C20, Side 1

The HTML that's generated by the system

```
<p>The Fender Stratocaster is <i>the</i> electric guitar design that changed the world. This guitar features a thicker bridge block for increased sustain and a more stable point of contact with the strings.</p>
```

```
<p>Features:</p>
```

```
<ul>
  <li>Thicker bridge block</li>
  <li>3-ply parchment pick guard</li>
  <li>Tinted neck</li>
</ul>
```



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C20, Side 4

Objectives

Applied

1. Develop database-driven web sites using any of the skills in this chapter or this section.

Knowledge

1. Describe the use of a content management system for a database-driven application.
2. Describe the use of include files and the include path.
3. Describe the directory structure for a database-driven web site.



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C20, Side 2

The rules for this content management system

- Use two returns to start a new paragraph.
- Use an asterisk to mark items in a bulleted list.
- Use one return between items in a bulleted list.
- Use standard HTML tags for bold and italics.



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C20, Side 5

The text that's entered by the user

```
The Fender Stratocaster is <i>the</i> electric guitar design that changed the world. This guitar features a thicker bridge block for increased sustain and a more stable point of contact with the strings.
```

Features:

- * Thicker bridge block
- * 3-ply parchment pick guard
- * Tinted neck



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C20, Side 3

The util/tags.php file

```
<?php
function add_tags($text) {
    // Convert return characters to Unix new lines
    // Convert Windows characters
    $text = str_replace("\r\n", "\n", $text);

    // Convert Mac characters
    $text = str_replace("\x", "\n", $text);

    // Get an array of paragraphs
    $paragraphs = explode("\n\n", $text);
```



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C20, Side 6

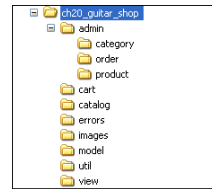
The util/tags.php file (continued)

```
// Add tags to each paragraph
$text = '';
foreach($paragraphs as $p) {
    $p = ltrim($p);

    $first_char = substr($p, 0, 1);
    if ($first_char == '*') {
        // Add <ul> and <li> tags
        $p = '<ul>' . $p . '</li></ul>';
        $p = str_replace('***', '<li>', $p);
        $p = str_replace("\n", '</li>', $p);
    } else {
        // Add <p> tags
        $p = '<p>' . $p . '</p>';
    }
    $text .= $p;
}

return $text;
?>
```

The directory structure for the website starting from htdocs/book_apps



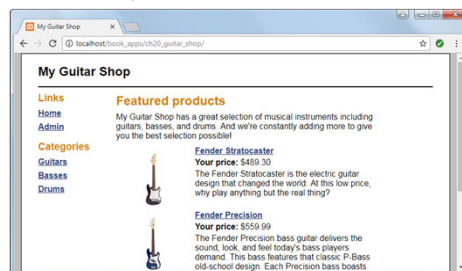
Code that uses the add_tags() function

```
$description_tags = add_tags($description);
```

Files in the application's root directory

```
index.php
home_view.php
main.css
```

The home page for the Guitar Shop website



The util/main.php file

```
<?php
// Get the document root
$doc_root = filter_input(INPUT_SERVER, 'DOCUMENT_ROOT');

// Get the application path
$url = filter_input(INPUT_SERVER, 'REQUEST_URI');
$dirs = explode('/', $url);
$app_path = '/' . $dirs[1] . '/' . $dirs[2] . '/';

// Set the include path
set_include_path($doc_root . $app_path);
?>
```

The view/header.php file

```
<!DOCTYPE html>
<html>
<!-- the head section -->
<head>
  <title>My Guitar Shop</title>
  <link rel="stylesheet" type="text/css"
        href="<?php echo $app_path ?>main.css" />
</head>
<!-- the body section -->
<body>
<header>
  <h1>My Guitar Shop</h1>
</header>
<main>
```



The view/sidebar_admin.php file

```
<aside>
  <h2>Links</h2>
  <ul>
    <li>
      <a href="<?php echo $app_path; ?>">Home</a>
    </li>
    <li>
      <a href="<?php echo $app_path .
        'admin'; ?>">Admin</a>
    </li>
  </ul>
```



The view/sidebar.php file

```
<aside>
  <!-- These links are for testing only.
        Remove them from a production application. -->
  <h2>Links</h2>
  <ul>
    <li>
      <a href="<?php echo $app_path; ?>">Home</a>
    </li>
    <li>
      <a href="<?php echo $app_path . 'admin';
        ?>">Admin</a>
    </li>
  </ul>
```



The view/sidebar_admin.php file (continued)

```
<h2>Categories</h2>
<ul>
  <!-- display links for all categories -->
  <?php foreach ($categories as $category) : ?>
    <li>
      <a href="<?php echo $app_path .
        'admin/product' .
        '?action=list_products' .
        '&category_id=' .
        $category['categoryID']; ?>">
        <?php echo $category['categoryName']; ?>
      </a>
    </li>
  <?php endforeach; ?>
</ul>
</aside>
```



The view/sidebar.php file (continued)

```
<h2>Categories</h2>
<ul>
  <!-- display links for all categories -->
  <?php foreach ($categories as $category) : ?>
    <li>
      <a href="<?php echo $app_path . 'catalog' .
        '?action=list_products' .
        '&category_id=' .
        $category['categoryID']; ?>">
        <?php echo $category['categoryName']; ?>
      </a>
    </li>
  <?php endforeach; ?>
  <li>&nbsp;</li>
</ul>
</aside>
```



The view/product.php file

```
<?php
  // Parse data
  $category_id = $product['categoryID'];
  $product_code = $product['productCode'];
  $product_name = $product['productName'];
  $description = $product['description'];
  $list_price = $product['listPrice'];
  $discount_percent = $product['discountPercent'];

  // Add HTML tags to the description
  $description_tags = add_tags($description);
```



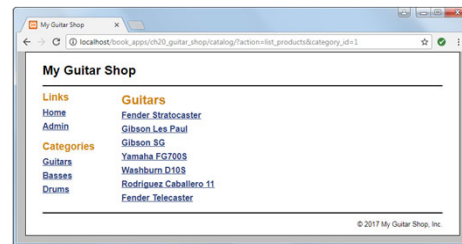
The view/product.php file (continued)

```
// Calculate discounts
$discount_amount = round(
    $list_price * ($discount_percent / 100), 2);
$unit_price = $list_price - $discount_amount;

// Format discounts
$discount_percent_f = number_format(
    $discount_percent, 0);
$discount_amount_f = number_format(
    $discount_amount, 2);
$unit_price_f = number_format($unit_price, 2);

// Get image URL and alternate text
$image_filename = $product_code . '.m.png';
$image_path = $app_path . 'images/' . $image_filename;
$image_alt = 'Image filename: ' . $image_filename;
?>
```

The Product List page

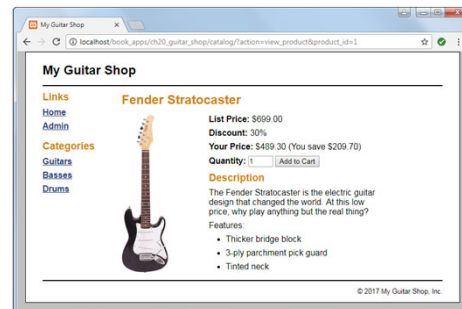


The view/product.php file (continued)

```
<h1><?php echo $product_name; ?></h1>
<div id="left_column">
    <p>"></p>
</div>

<div id="right_column">
    <p><b>List Price:</b>
        <?php echo '$' . $list_price; ?></p>
    <p><b>Discount:</b>
        <?php echo $discount_percent_f . '%'; ?></p>
    <p><b>Your Price:</b>
        <?php echo '$' . $unit_price_f; ?>
        (You save <?php echo '$' . $discount_amount_f;
        ?>)</p>
```

The Product View page



The view/product.php file (continued)

```
<form action="<?php echo $app_path . 'cart' ?>"
    method="post">
    <input type="hidden" name="action" value="add">
    <input type="hidden" name="product_id"
        value="<?php echo $product_id; ?>">
    <b>Quantity:</b>
    <input type="text" name="quantity" value="1"
        size="2">
    <input type="submit" value="Add to Cart">
</form>
<h2 class="no_bottom_margin">Description</h2>
<?php echo $description_tags; ?>
</div>
```

The catalog/index.php file

```
<?php
require_once('../util/main.php');
require_once('../util/tags.php');
require_once('../model/database.php');
require_once('../model/product_db.php');
require_once('../model/category_db.php');

$action = filter_input(INPUT_POST, 'action');
if ($action == NULL) {
    $action = filter_input(INPUT_GET, 'action');
    if ($action == NULL) {
        $action = 'list_products';
    }
}
```

The catalog/index.php file (continued)

```
switch ($action) {
    case 'list_products':
        // get current category
        $category_id = filter_input(INPUT_GET,
            'category_id', FILTER_VALIDATE_INT);
        if ($category_id == NULL ||
            $category_id == FALSE) {
            $category_id = 1;
        }

        // get categories and products
        $current_category = get_category($category_id);
        $categories = get_categories();
        $products = get_products_by_category($category_id);

        // display view
        include('product_list.php');
        break;
}
```



The catalog/product_view.php file

```
<?php include '../view/header.php'; ?>
<?php include '../view/sidebar.php'; ?>
<section>
    <!-- display product -->
    <?php include '../view/product.php'; ?>
</section>
<?php include '../view/footer.php'; ?>
```



The catalog/index.php file (continued)

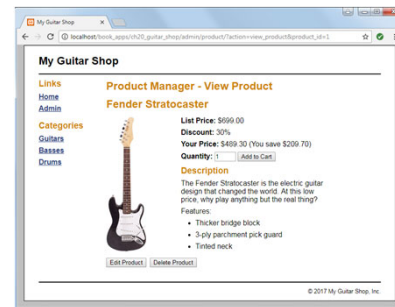
```
case 'view_product':
    $categories = get_categories();

    // get product data
    $product_id = filter_input(INPUT_GET, 'product_id',
        FILTER_VALIDATE_INT);
    $product = get_product($product_id);

    // display product
    include('product_view.php');
    break;
}
?>
```



The Product View page

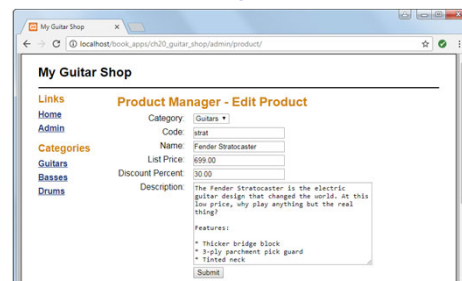


The catalog/product_list.php file

```
<?php include '../view/header.php'; ?>
<?php include '../view/sidebar.php'; ?>
<section>
    <h1><?php echo $current_category['categoryName']; ?>
    </h1>
    <?php if (count($products) == 0) : ?>
    <ul><li>There are no products in this
        category.</li></ul>
    <?php else: ?>
    <ul>
        <?php foreach ($products as $product) : ?>
        <li>
            <a href="?action=view_product&product_id=<?php
                echo $product['productID']; ?>">
                <?php echo $product['productName']; ?>
            </a>
        </li>
        <?php endforeach; ?>
    </ul>
    <?php endif; ?>
</section>
<?php include '../view/footer.php'; ?>
```



The Product Add/Edit page



The admin/product/index.php file

```
<?php
require_once('../util/main.php');
require_once('../util/tags.php');
require_once('../model/database.php');
require_once('../model/product_db.php');
require_once('../model/category_db.php');

$action = filter_input(INPUT_POST, 'action');
if ($action == NULL) {
    $action = filter_input(INPUT_GET, 'action');
    if ($action == NULL) {
        $action = 'list_products';
    }
}
```



The admin/product/index.php file (continued)

```
case 'show_add_edit_form':
    $product_id = filter_input(INPUT_GET, 'product_id',
        FILTER_VALIDATE_INT);
    if ($product_id == NULL) {
        $product_id = filter_input(INPUT_POST,
            'product_id', FILTER_VALIDATE_INT);
    }
    $product = get_product($product_id);
    $categories = get_categories();
    include('product_add_edit.php');
    break;
```



The admin/product/index.php file (continued)

```
switch ($action) {
    case 'list_products':
        $category_id = filter_input(INPUT_GET,
            'category_id', FILTER_VALIDATE_INT);
        if ($category_id == FALSE) {
            $category_id = 1;
        }
        $current_category = get_category($category_id);
        $categories = get_categories();
        $products = get_products_by_category($category_id);
        include('product_list.php');
        break;
```



The admin/product/index.php file (continued)

```
case 'add_product':
    $category_id = filter_input(INPUT_POST,
        'category_id', FILTER_VALIDATE_INT);
    $code = filter_input(INPUT_POST, 'code');
    $name = filter_input(INPUT_POST, 'name');
    $description = filter_input(INPUT_POST,
        'description');
    $price = filter_input(INPUT_POST, 'price',
        FILTER_VALIDATE_FLOAT);
    $discount_percent = filter_input(INPUT_POST,
        'discount_percent');
```



The admin/product/index.php file (continued)

```
case 'view_product':
    $categories = get_categories();
    $product_id = filter_input(INPUT_GET, 'product_id',
        FILTER_VALIDATE_INT);
    $product = get_product($product_id);
    include('product_view.php');
    break;

case 'delete product':
    $product_id = filter_input(INPUT_POST, 'product_id',
        FILTER_VALIDATE_INT);
    $category_id = filter_input(INPUT_POST,
        'category_id', FILTER_VALIDATE_INT);
    delete_product($product_id);

    // display product list for the current category
    header("Location: .?category_id=$category_id");
    break;
```



The admin/product/index.php file (continued)

```
if ($category_id == FALSE ||
    $code == NULL || $name == NULL ||
    $description == NULL ||
    $price == FALSE ||
    $discount_percent == FALSE) {
    $error = 'Invalid product data.
    Check all fields and try again.';
    include('../errors/error.php');
} else {
    $categories = get_categories();
    $product_id = add_product($category_id, $code,
        $name, $description, $price,
        $discount_percent);
    $product = get_product($product_id);
    include('product_view.php');
}
break;
```



The admin/product/index.php file (continued)

```

case 'update_product':
    $product_id = filter_input(INPUT_POST, 'product_id',
        FILTER_VALIDATE_INT);
    $category_id = filter_input(INPUT_POST,
        'category_id', FILTER_VALIDATE_INT);
    $code = filter_input(INPUT_POST, 'code');
    $name = filter_input(INPUT_POST, 'name');
    $description = filter_input(INPUT_POST,
        'description');
    $price = filter_input(INPUT_POST, 'price',
        FILTER_VALIDATE_FLOAT);
    $discount_percent = filter_input(INPUT_POST,
        'discount_percent');

```



The admin/product/product_view.php file (cont.)

```

<form action="." method="post" >
    <input type="hidden" name="action"
        value="delete_product"/>
    <input type="hidden" name="product_id"
        value="<?php
            echo $product['productID']; ?>" />
    <input type="hidden" name="category_id"
        value="<?php
            echo $product['categoryID']; ?>" />
    <input type="submit" value="Delete Product"/>
</form>
</div>
</section>
<?php include '../view/footer.php';

```



The admin/product/index.php file (continued)

```

if ($product_id === FALSE || $category_id === FALSE ||
    $code === NULL || $name === NULL ||
    $description === NULL ||
    $price === FALSE ||
    $discount_percent === FALSE) {
    $error = 'Invalid product data.
        Check all fields and try again.';
    include('../errors/error.php');
} else {
    $categories = get_categories();
    update_product($product_id, $code, $name,
        $description, $price, $discount_percent,
        $category_id);
    $product = get_product($product_id);
    include('product_view.php');
}
break;
?>

```



The admin/product/product_add_edit.php file

```

<?php include '../view/header.php'; ?>
<?php include '../view/sidebar_admin.php'; ?>
<?php
if (isset($product_id)) {
    $heading_text = 'Edit Product';
} else {
    $heading_text = 'Add Product';
}
?>
<section>
    <h1>Product Manager - <?php echo $heading_text; ?></h1>
    <form action="index.php" method="post"
        id="add_edit_product_form">
        <?php if (isset($product_id)) : ?>
        <input type="hidden" name="action"
            value="update_product" />
        <input type="hidden" name="product_id"
            value="<?php echo $product_id; ?>" />

```



The admin/product/product_view.php file

```

<?php include '../view/header.php'; ?>
<?php include '../view/sidebar_admin.php'; ?>
<section>
    <h1>Product Manager - View Product</h1>

    <!-- display product -->
    <?php include '../view/product.php'; ?>

    <!-- display buttons -->
    <div class="last_paragraph">
        <form action="." method="post" id="edit_button_form">
            <input type="hidden" name="action"
                value="show_add_edit_form"/>
            <input type="hidden" name="product_id"
                value="<?php
                    echo $product['productID']; ?>" />
            <input type="hidden" name="category_id"
                value="<?php
                    echo $product['categoryID']; ?>" />
            <input type="submit" value="Edit Product" />
        </form>

```



The product_add_edit.php file (continued)

```

<?php else : ?>
    <input type="hidden" name="action"
        value="add_product" />
<?php endif; ?>
    <input type="hidden" name="category_id"
        value="<?php
            echo $product['categoryID']; ?>" />
    <label>Category:</label>
    <select name="category_id">
    <?php foreach ($categories as $category) :
        if ($category['categoryID'] ==
            $product['categoryID']) {
            $selected = 'selected';
        } else {
            $selected = '';
        }
    ?>

```



The product_add_edit.php file (continued)

```

        <option value="<?php
            echo $category['categoryID']; ?>"
            <?php echo $selected ?>>
            <?php echo $category['categoryName']; ?>
        </option>
    </select><br>

    <label>Code:</label>
    <input type="text" name="code"
        value="<?php echo htmlspecialchars(
            $product['productCode']); ?>"><br>

    <label>Name:</label>
    <input type="text" name="name"
        value="<?php echo htmlspecialchars(
            $product['productName']); ?>"><br>

```



The product_add_edit.php file (continued)

```

    <label>List Price:</label>
    <input type="text" name="price"
        value="<?php echo $product['listPrice']; ?>"><br>

    <label>Discount Percent:</label>
    <input type="text" name="discount_percent"
        value="<?php echo
            $product['discountPercent']; ?>"><br>

    <label>Description:</label>
    <textarea name="description"
        rows="10"><?php echo htmlspecialchars(
            $product['description']); ?>
    </textarea><br>

    <label>&nbsp;</label>
    <input type="submit" value="Submit"
    </form>

```



The product_add_edit.php file (continued)

```

    <div id="formatting_directions">
        <h2>How to format the Description entry</h2>
        <ul>
            <li>Use two returns to start a new
                paragraph.</li>
            <li>Use an asterisk to mark items in a bulleted
                list.</li>
            <li>Use one return between items in a bulleted
                list.</li>
            <li>Use standard HTML tags for bold and
                italics.</li>
        </ul>
    </div>
</section>
<?php include '../view/footer.php'; ?>

```

