



# PHP and MySQL

## Session 3: Database Manipulation

Izzy Johnston

[izzycjohnston@gmail.com](mailto:izzycjohnston@gmail.com)

@izzy\_johnston

# A brief review

- PHP
  - Variables
  - Operations
  - Functions
- HTML Forms
- MySQL
  - Relational Databases
  - Connecting to a database
- Adding data
- Showing data
- Look at homework

# Deleting data

product\_show.php

```
while($recording=mysqli_fetch_array($result)){
    echo "<div class='product'>
        <div class='company'>" . $company . "--";
    echo "<span class='type'> " . $type . "</span></div>";

    echo "<div class='roast'>Roast: " . $roast . "</div>"
    echo "<div class='description'> " . $description . "</div>

    echo "<a href='product_delete.php?product_id=
$product_id'>Delete this record </a> |";
    echo "</div>";
}
```

# Deleting data, cont.

product\_delete.php

<?php

```
include 'include/db.inc.php';
```

```
$product_id = $_GET['product_id'];
```

```
$sql = "DELETE FROM product WHERE
```

```
    product_id='$product_id'";
```

```
$result = mysqli_query($link, $sql);
```

```
if (!$result) {
```

```
    $error = 'Error deleting product' . mysqli_error($link);
```

```
    echo $error;
```

```
    exit();
```

```
}
```

```
header('location:product_show.php');
```

```
?>
```

# Editing data

product\_show.php

```
while($recording=mysqli_fetch_array($result)){
    echo "<div class='product'>
        <div class='company'>" . $company . "--";
    echo "<span class='type'> " . $type . "</span></div>";

    echo "<div class='roast'>Roast: " . $roast . "</div>"
    echo "<div class='description'> " . $description . "</div>

    echo "<a href='product_delete.php?product_id=
$product_id'>Delete this record </a> |";
    echo "<a href='product_edit.php?product_id=
$product_id'>Edit this record</a>";
    echo "</div>";
}
```

# Editing data, cont.

product\_edit.php

```
$product_id=$_GET['product_id'];  
$sql="SELECT company, type, roast, description  
      FROM product  
      WHERE product_id='$product_id';  
$result = mysqli_query($link, $sql);  
if (!$result) {  
    $error = 'Error: ' . mysqli_error($link);  
    echo $error;  
    exit();  
}  
$recording=mysqli_fetch_array($result);
```

# Editing data, cont.

## product\_edit.php

```
$product_id=$_GET['product_id'];
$sql="SELECT company, type, roast, description
      FROM product
      WHERE product_id='$product_id'";
$result = mysqli_query($link, $sql);
if (!$result) {
    $error = 'Error: ' . mysqli_error($link);
    echo $error;
    exit();
}
$recording=mysqli_fetch_array($result);
```

```
$company=htmlspecialchars($recording['company'], ENT_QUOTES,
'UTF-8');
```

```
$type = htmlspecialchars($recording['type'], ENT_QUOTES, 'UTF-8');
```

```
$roast = htmlspecialchars($recording['roast'], ENT_QUOTES, 'UTF-8');
```

```
$description = htmlspecialchars($recording['description'], ENT_QUOTES,
'UTF-8');
```

?>

# Editing data, cont. (Back to HTML Forms!)

product\_edit.php

```
<form action="product_edit_result.php" method="get">
```

```
Company: <input type="text" name="company"
           value="<?php echo $company ?>"/><br/>
```

```
Type: <input type="text" name="type"
           value="<?php echo $type ?>"/><br/>
```

Roast:

```
<input type="radio" name="roast" value="light"
      <?php if ($roast=="light") echo "checked='checked'" ?>>
      Light</input>
```

```
<input type="radio" name="roast" value="medium"
      <?php if ($roast=="medium") echo "checked='checked'" ?>>
      Medium</input>
```

```
<input type="radio" name="roast" value="dark"
      <?php if ($roast=="dark") echo "checked='checked'" ?>>
      Dark</input>
```



# Editing data, cont. (Back to HTML Forms!)

## product\_edit.php

```
<form action="product_edit_result.php" method="get">
  Company: <input type="text" name="company"
             value="<?php echo $company ?>" /><br/>
  Type: <input type="text" name="type"
             value="<?php echo $type ?>" /><br/>
  Roast:
  <input type="radio" name="roast" value="light"
        <?php if ($roast=="light") echo "checked='checked'" ?>>
    Light</input>
  <input type="radio" name="roast" value="medium"
        <?php if ($roast=="medium") echo "checked='checked'" ?>>
    Medium</input>
  <input type="radio" name="roast" value="dark"
        <?php if ($roast=="dark") echo "checked='checked'" ?>>
    Dark</input>

  <textarea name="description" rows="10" cols="40">
    <?php echo $description ?></textarea>

  <input type="hidden" name="product_id" value="<?php echo
  $product_id ?>" />
  <input type="submit" value="Submit" />
</form>
```

# Editing Data, cont.

product\_edit\_result.php

<?php

```
include 'include/db.inc.php';
```

```
$product_id=$_GET['product_id'];
```

```
$company=mysqli_real_escape_string($link, $_GET['company']);
```

```
$type=mysqli_real_escape_string($link, $_GET['type']);
```

```
$roast=mysqli_real_escape_string($link, $_GET['roast']);
```

```
$description=mysqli_real_escape_string($link, $_GET['description']);
```

```
$sql = "UPDATE product SET
```

```
company='$company',
```

```
type='$type',
```

```
roast='$roast',
```

```
description='$description'
```

```
WHERE product_id='$product_id'";
```

# Editing Data, cont.

product\_edit\_result.php

<?php

include 'db.inc.php';

\$product\_id = \$\_GET['product\_id'];

\$company = mysqli\_real\_escape\_string(\$link, \$\_GET['company']);

\$type = mysqli\_real\_escape\_string(\$link, \$\_GET['type']);

\$roast = mysqli\_real\_escape\_string(\$link, \$\_GET['roast']);

\$description = mysqli\_real\_escape\_string(\$link, \$\_GET['description']);

\$sql = "INSERT INTO product SET

company='\$company',

type='\$type',

roast='\$roast',

description='\$description'

WHERE product\_id='\$product\_id'";

if (!mysqli\_query(\$link, \$sql)){

    \$error = 'Error adding submitted data: ' . mysqli\_error(\$link);

    echo \$error;

    exit();

}

header('Location:product\_show.php');

?>

# Relating Data

- Relational database
  - Related Tables
- Coffee Database
  - Product and Company
  - Why have separate tables?

# Relating Data, cont.

product\_insert.php

Company: <input type="text" name="company"/>

Company:

```
<select name="company">
```

```
<option value="">Choose</option>
```

```
<?php
```

```
    $sql='SELECT company_id, name FROM company  
          ORDER BY name';
```

```
    $result = mysqli_query($link, $sql);
```

```
    if (!$result) {
```

```
        $error = 'Error fetching data: ' . mysqli_error($link);  
        echo $error;
```

```
        exit();
```

```
    }
```

## Relating Data, cont.

product\_insert.php

```
while($recording=mysqli_fetch_array($result)){  
    $c_id=mysqli_real_escape_string($conn,$recording['company_id'],  
    ENT_QUOTES, 'UTF-8');  
    $c_name=mysqli_real_escape_string($conn,$recording['name'],  
    ENT_QUOTES, 'UTF-8');  
    echo "<option value=$c_id>" . " ". $c_name. "</option>  
    }  
?>  
</select>
```

# Search functionality—keyword search

search.php

```
<form action="search_result.php"  
  method="get">
```

Description Keyword: 

```
<input type="text"  
name="keyword"/>
```

```
<input type="submit" name="Search"/>
```

```
</form>
```

# Search functionality—keyword search, cont.

search\_result.php

<? php

```
include 'include/db.inc.php';
```

```
$keyword=$_GET['keyword'];
```

```
$fields="SELECT
```

```
    product.product_id as product_id,
```

```
    product.type as type,
```

```
    product.roast as roast,
```

```
    product.company as company,
```

```
    product.description as description,
```

```
    company.company_id as company_id,
```

```
    company.name as name";
```



# Search functionality—keyword search, cont.

search\_result.php

<? php

include 'db.inc.php';

\$keyword=\$\_GET['keyword'];

\$fields="SELECT

product.product\_id as product\_id,

product.company as company,

product.type as type,

product.roast as roast,

product.description as description,

company.company\_id as company\_id,

company.name as name ";

\$table="FROM product, company ";

\$where="where 1=1 and

product.company=company.company\_id";

if (\$keyword != ""){

\$where = \$where . " AND product.description LIKE '%  
\$keyword%'";

}

# Search functionality—keyword search, cont.

search\_result.php

```
<? php
```

```
include 'db.inc.php';
$keyword=$_GET['keyword'];
$fields="SELECT
    product.product_id as product_id,
    product.company as company,
    product.type as type,
    product.roast as roast,
    product.description as description,
    company.company_id as company_id,
    company.name as name ";
$table="FROM product, company ";
$where="where 1=1 and product.company=company.company_id";
if ($keyword != ""){
    $where .= " AND product.description LIKE '%keyword%'";
}
```

```
$sql=$fields.$table.$where;
```

```
$result = mysqli_query($link, $sql);
```

```
if (!$result) {
```

```
    $error = 'Error fetching data: ' . mysqli_error($link);
```

```
    echo $error;
```

```
exit();
```

```
}
```

# Search functionality--keyword search, cont.

```
while($recording=mysqli_fetch_array($result)){  
    $product_id=mysqli_specialchars($recording['product_id'], ENT_QUOTES,  
    'UTF-8');  
    $company= mysqli_specialchars($recording['name'], ENT_QUOTES, 'UTF-8');  
    $type=mysqli_specialchars($recording['type'], ENT_QUOTES, 'UTF-8');  
    $roast=mysqli_specialchars($recording['roast'], ENT_QUOTES, 'UTF-8');  
    $description=mysqli_specialchars($recording['description'], ENT_QUOTES,  
    'UTF-8');  
  
    echo "<div class='product'>  
        <div class='company'>" . $company . "--";  
    echo "<span class='type'> " . $type . "</span></div>";  
    echo "<div class='roast'>Roast: " . $roast . "</div>"  
    echo "<div class='description'> " . $description . "</div>  
    </div>";  
}
```

# Search functionality—field search

- More keyword searches

```
if ($roast != ""){  
    $where .= " AND product.roast = '$roast';"  
}
```

```
if ($company != ""){  
    $where .= " AND company.company_id =  
    '$company';"  
}
```

# PHP in the Real World, part 1

- Open source, widely accepted
- Used by many (if not most) Content Management Systems
- Ebay, Amazon, Wordpress, Drupal

# Wordpress

- Header Include
- Footer Include
- Page Template

## Homework--

- Create an advanced search that allows a user to search for company name and coffee roast. You will need to create the HTML form and the php result page.
- Using the posted header and footer examples, try to customize our existing pages with php (as seen in Wordpress)

## Next week— Advanced PHP

- Create password protected content
- PHP Header and Footers
- PHP in the Real World, part 2



Questions?

