



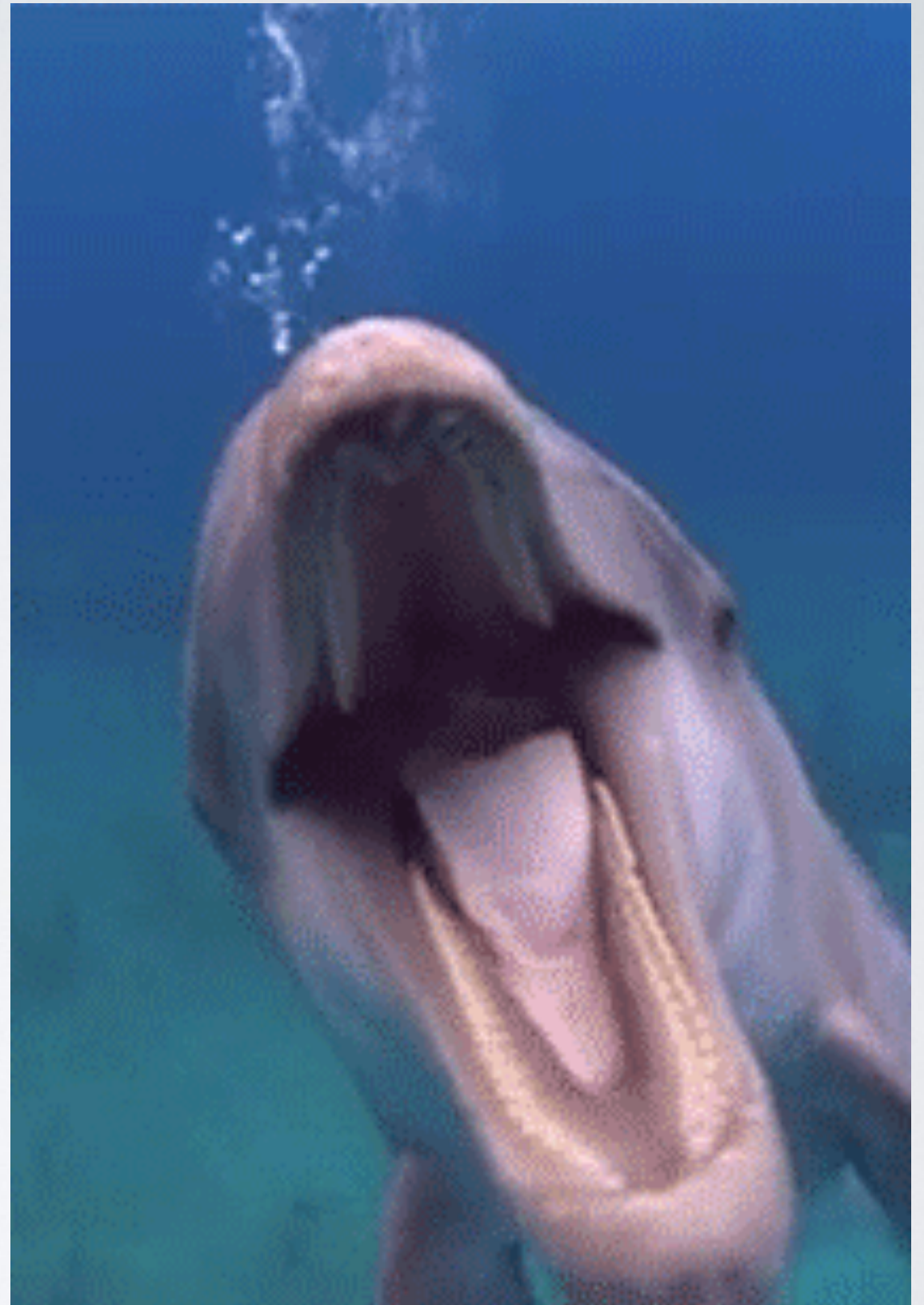
INTRO TO PHP & MYSQL

TJ Nicolaides

Original Curriculum: Izzy Johnston

PART 3: DATABASE MANIPULATION

Intro to PHP & MySQL



BRIEF REVIEW

- PHP
 - Variables
 - Flow control
- HTML Forms
 - Form methods / actions
 - Input names
- MySQL
 - Relational databases
 - Connecting to a database
- Creating data / Reading data

C. R. U. D.

Create / **R**ead / **U**ppdate / **D**eleete

DELETE

- Our script to delete from our coffee database is product_delete.php
- First, include our connection script again (include/db.inc.php)
- Concatenate a DELETE query to remove a row:
 - **DELETE FROM
tablename WHERE
column1 = value1;**

```
4
5
6  $product_id = $_GET['product_id']
7  $sql = "DELETE FROM product WHERE
8         product_id='$prod
9  $result = mysqli_query($link, $sq
10
11  if (!$result) {
12      $error = 'Error deleting prod
13      echo $error;
14      exit();
15  }
16
17  header('location:product_show.php
18
19
20
21
22
23
```

DELETE

- Modify product_show.php to link to our new script
- product_delete.php redirects back to product_show.php

```
63
64
65
66
67
68
69
70
71
72
73
74
75
76 echo "<a href='product_delete.php?product_id="
77
78
79
80
81
82
83
84
85
86
87
88
```

UPDATE

- Modify product_show.php again to link to a new script: product_edit.php
- Concatenate the URL parameter using the **\$product_id** variable

```
64
65
66
67
68
69
70
71
72
73
74
75
76 echo "<a href='product_delete.php?product_id=$product_id'>Delete Product</a>";
77
78 echo "<a href='product_edit.php?product_id=$product_id'>Edit Product</a>";
79
80
81
82
83
84
85
86
87
88
89
90
91
92
93
```


UPDATE

- In product_edit.php, write a SELECT query that gives us only one row:
- **SELECT * FROM
tablename WHERE
column1 = value1;**

```
28
29
30
31
32
33
34
35
36
37
38 include 'include/db.inc.php';
39 $product_id=$_GET['product_id'];
40 $sql="SELECT company, type, roast, description
41      FROM product
42      WHERE product_id='$product_id'";
43 $result = mysqli_query($link, $sql);
44 if (!$result) {
45     $error = 'Error: ' . mysqli_error($link);
46     echo $error;
47     exit();
48 }
49
50
51
52
53
54
55
56
57
58
```


UPDATE

- The HTML form on product_edit.php is the same as product_insert.html
- Use variable values to prepopulate the form input values

```
107
108
109
110
111
112
113 Type: <input type="text" name="type" value=
114 Roast:
115
116 <input type="radio" name="roast" value="lig
117     <?php if ($roast=="light") echo "checked
118
119 <input type="radio" name="roast" value="med
120     <?php if ($roast=="medium") echo "check
121
122 <input type="radio" name="roast" value="dar
123     <?php if ($roast=="dark") echo "checked
124
125 <textarea name="description" rows="10" cols
126     <?php echo $description ?>
127 </textarea><br />
128
129
130
131
132
```

UPDATE

- We'll use a hidden input to store our product_id value
- This is passed to product_edit_result.php like any other form input - except not visible or editable for end users

```
133  
134  
135  
136  
137  
138  
139  
140  
141  
142  
143  
144  
145  
146 <input type="hidden" name="product_id"  
147       value="<?php echo $product_id ?>" />  
148  
149  
150  
151  
152  
153  
154  
155  
156  
157  
158  
159
```

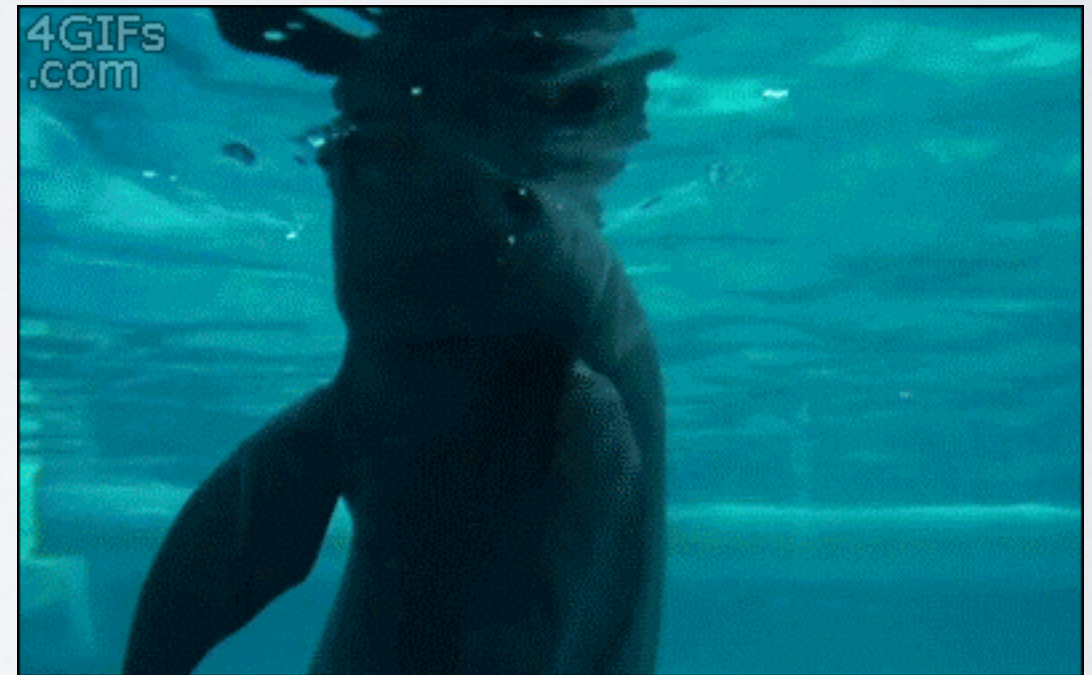
UPDATE

- In product_edit_result.php, connect to the db and get the URL parameters
- Update a row using an UPDATE statement:
 - **UPDATE tablename SET column2 = value2 WHERE column1 = value1;**
- Redirect back to product_show.php

```
10
11
12
13
14
15 $sql = "UPDATE product SET
16     company='$company',
17     type='$type',
18     roast='$roast',
19     description='$description'
20     WHERE product_id='$product_id'";
21
22 if (!mysqli_query($link, $sql)) {
23     $error = 'Error adding submitted data: '
24     echo $error;
25     exit();
26 }
27 header('Location:product_show.php');
28
29
30
31
32
33
34
35
```


RELATING DATA

- Company and Product
- Why have separate tables?



RELATING DATA

- Change product_insert.html to product_insert.php
- Query the company table
- Use the results to populate a select dropdown:

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

```
<option value=16> Starbucks</option>
```

```
<option value=24>Irving Farm</option>
```

```
<option value=32>Guerrilla Coffee</option>
```

```
</select>
```

```
29
30
31
32
33 Company: <select name="company">
34     <option value="">
35         Choose
36     </option>
37     <?php
38         include 'include/db.inc.php';
39         $sql='SELECT company_id, name FROM company
40             ORDER BY name';
41         $result = mysqli_query($link, $sql);
42         if (!$result) {
43             $error = 'Error fetching data: ' . mysqli_error
44             echo $error;
45             exit();
46         }
47
48         while($recording=mysqli_fetch_array($result)){
49             $c_id=htmlspecialchars($recording['company_id'])
50             $c_name=htmlspecialchars($recording['name'], EN
51             echo "<option value=$c_id>" . " ". $c_name. "</
52         }
53     ?>
54 </select><br />
55
56
57
58
59
60
61
62
```

SEARCH

- New script: search.php

```
28
29
30
31
32
33
34
35
36
37
38
39
40 <form action="search_result.php" method="get">
41     <!--Text box selector for keyword-->
42     Description Keyword: <input type="text" name="keyword">
43     <input type="submit" value="Search" />
44 </form>
45
46
47
48
49
50
51
52
53
54
```


SEARCH

- In search_result.php, get the keyword passed from our form on search.php
- Concatenate a search query with \$fields, \$table, and \$where variables
- Select inexact matches with **LIKE** instead of =
- **LIKE** '%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 ";
/*say which tables you are selecting from*/
$table="FROM product, company ";
/*where 1=1 (a condition that is always true, and the company
same. Otherwise, you would have repeated data*/
$where="where 1=1 and
    product.company=company.company_id";
/*if the $keyword is not blank, search the description for the
that the word doesn't have to be exact. If you searched for mounta

if ($keyword != ''){
    $where .= " AND product.description LIKE '%$keyword%'";
}
/*if $roast is not blank, search for the roast. We do not need
if ($roast != ''){
    $where .= " AND product.roast = '$roast'";
}
/*if $company is not blank, search for company. We do not need
if ($company != ''){
    $where .= " AND company.company_id = '$company'";
}
/*Make a sql string from the variables above*/
$sql=$fields.$table.$where;

$result = mysqli_query($link, $sql);
if (!$result) {
    $error = 'Error fetching data: ' . mysqli_error($link);
    echo $error;
    exit();
}
```

SEARCH

- Loop through our results and display them like product_show.php

```
69
70
71
72
73
74 while($recording = mysqli_fetch_array($result)){
75     $product_id = htmlspecialchars($recording['product_id']);
76     /*this value is actually from the company table
the product_show.php example*/
77     $company = htmlspecialchars($recording['company']);
78     $type = htmlspecialchars($recording['type'], ENT_QUOTES);
79     $roast = htmlspecialchars($recording['roast'], ENT_QUOTES);
80     $description = htmlspecialchars($recording['description'], ENT_QUOTES);
81
82     echo "<div class='product'>
83         <div class='company'>" . $company . "</div>
84     echo "<span class='type'> " . $type . "</span>
85     echo "<div class='roast'>Roast: " . $roast . "</div>
86     echo "<div class='description'> " . $description . "</div>";
87
88 }
89
90
91
92
93
94
95
96
97
```

SEARCH

- Add some additional values to your search.php form
- Narrow down by roast and by company using dropdowns and radio buttons

```
32
33
34
35 <form action="search_result.php" method="get">
36     <!--Text box selector for keyword-->
37     Description Keyword: <input type="text" name="keyword" /><br />
38     <!--Radio Selector for Roast-->
39     Roast: <input type="radio" name="roast" value="light" />Light
40           <input type="radio" name="roast" value="dark" />Dark <input type="radio"
41           <!--Drop down selector for company-->
42     Company: <select name="company">
43         <option value="">
44             Choose
45         </option>
46
47         <?php
48             include 'include/db.inc.php';
49             $sql='SELECT company_id, name FROM company
50                 ORDER BY name';
51             $result = mysqli_query($link, $sql);
52             if (!$result) {
53                 $error = 'Error fetching data: ' . mysqli_error($
54                 echo $error;
55                 exit();
56             }
57
58             while($recording=mysqli_fetch_array($result)){
59                 $c_id=htmlspecialchars($recording['company_id'],
60                 $c_name=htmlspecialchars($recording['name'], ENT_
61                 echo "<option value=$c_id>" . " ". $c_name. "</op
62             }
63         ?>
64
65     </select><br />
66     <input type="submit" value="Search" />
67 </form>
68
```