**PHP SELECT**

```php
$sql = "SELECT LastName, FirstName FROM Employee";
$result = mysql_query($sql);
if(mysql_num_rows($result) == 0) {
  $num_results = 0;
} else {
  $num_results = mysql_num_rows($result);
}
for($i=0; $i < $num_results; $i++) {
  $row = mysql_fetch_array($result);
  echo "<tr>
    <td>" . $row["LastName"] . "</td>
    <td>" . $row["FirstName"] . "</td>
  </tr>";
}
```

**SQL INSERT**

- **Syntax**
  - `INSERT INTO <tablename> VALUES('v1', 'v2', ..., 'vx');`
  - `INSERT INTO <tablename>(col1, col2, col3) VALUES('v1', 'v2', 'v3');`

**SQL INSERT Example 1**

```
INSERT INTO Shippers VALUES(25, 'ABC Corp.', '555-2345');
```

- Notice 25 is not in quotes
  - When the database field is created as a char or a varchar, use single quotes to insert
  - When the database field is created as a decimal (or other number) do NOT use single quotes when inserting or comparing to that field.

**SQL INSERT Example 2**

- `INSERT INTO Shippers(ShipperID, CompanyName) VALUES(26, 'DEF Corp.');`
- Notice that ShipperID & CompanyName are not in quotes. DB field names do not appear in quotes.
- Notice that each value MUST line up with the corresponding field name.
  - i.e.: 26 maps to ShipperID

**PHP INSERT**

```php
$shipperID = $HTTP_POST_VARS["shipperID"]; $companyName = $HTTP_POST_VARS["companyName"]; $phone = $HTTP_POST_VARS["phone"]; $sql = "INSERT INTO Shippers(ShipperID, CompanyName, Phone) VALUES(\"$shipperID\", \"$companyName\", \"$phone\")";
```

//Uncomment this debug echo statement to check your SQL
//echo $sql;

//Open DB connection not shown here...
$result = mysql_query($sql);
**INSERT Notes**

- Typically want to use:
  - INSERT INTO
    Shippers(shipperID, companyName, phone)
    VALUES(25, 'ABC Corp.', '555-2345');
  - This verifies that:
    - You insert the correct value into the correct field
    - You have the same number of values as the number of fields in the table

**SQL DELETE**

- Syntax
  - DELETE FROM <tablename>
    WHERE <condition>;

- Example
  - DELETE FROM Employee
    WHERE EmployeeID = '125775';
    - Deletes the employee having EmployeeID 125775 from the database.

**DELETE Notes**

- Be careful with the DELETE statement!!
- Almost always want to delete by a Primary Key – Why?
  - If you delete by another field, you could delete a large portion of the database!

- DELETE FROM Employee;
  - This statement deletes the entire Employee table!

**PHP DELETE**

```php
$empID = $HTTP_POST_VARS['employeeID'];
$sql = "DELETE FROM Employee WHERE EmployeeID='$empID';";
//Uncomment this debug echo statement to check your SQL
#echo $sql;
//Open DB connection not shown here..
$result = mysql_query($sql);
```

**SQL UPDATE**

- Syntax
  - UPDATE <tablename>
    SET <columnname> = <value>

- Example
  - UPDATE Employee
    SET HomePhone='555-1234'
    WHERE EmployeeID='125775';

**SQL UPDATE Example 1**

- UPDATE Employee SET
  HomePhone='555-1234';

- What is wrong with the above statement?
  - It updates everybody’s home phone number!
**UPDATE Notes**

- Be careful forming your WHERE clause
  - Proper use of the WHERE clause allows you to update or delete only the rows you really intend to.
  - You will almost ALWAYS need a WHERE clause.

**SQL UPDATE Example 2**

- An example of setting multiple fields all at one time (separate them by commas):
  
  ```sql
  UPDATE Employee
  SET HomePhone='555-1234',
  Address='123 N. South St.',
  City='West Lafayette',
  State='IN'
  WHERE EmployeeID='125775';
  ```

**SQL UPDATE Example 3**

- An example using BETWEEN and AND:

  ```sql
  UPDATE Employee
  SET Region='Europe'
  WHERE City='London'
  AND HireDate BETWEEN '1992-04-01'
  AND '1993-10-17';
  ```

  * This is the date syntax for MySQL
  * The dates used above are pulled from the Northwind database

**PHP UPDATE**

```php
$homePhone = $HTTP_POST_VARS['homePhone'];
$address = $HTTP_POST_VARS['address'];
$city = $HTTP_POST_VARS['city'];
$state = $HTTP_POST_VARS['state'];
$empID = $HTTP_POST_VARS['empID'];

$sql = "UPDATE Employee SET HomePhone='" . $homePhone . ", Address='" . $address . ", City='" . $city . ", State='" . $state . ", EmployeeID='" . $empID . "';";

// Uncomment this debug echo statement to check your SQL
// echo $sql; // Open DB connection not shown here...
$result = mysql_query($sql);
```