

PHP DB Connectivity

<http://usman-blog.com/>

The Wrong Way

Connect

```
<?php
$con=mysqli_connect("localhost","my_user","my_password","my_db");
// Check connection
if (mysqli_connect_errno())
{
    echo "Failed to connect to MySQL: " . mysqli_connect_error();
}
```

Query

```
// Perform queries
mysqli_query($con,"SELECT * FROM Persons");
mysqli_query($con,"INSERT INTO Persons (FirstName,LastName,Age)
VALUES ('Glenn','Quagmire',33)");
```

Close
Connection

```
mysqli_close($con);
?>
```

The Right Way

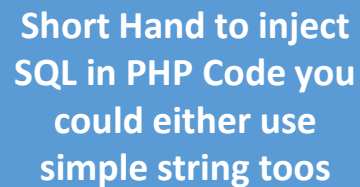
- PHP MySQLi OOP

Connection

```
$db = new mysqli('localhost', 'user', 'pass', 'demo');  
if($db->connect_errno > 0)  
{  
    die('Unable to connect to database [' . $db->connect_error . ']');  
}
```

Querying

```
$sql = <<<SQL  
SELECT *  
FROM `users`  
WHERE `live` = 1  
SQL;
```

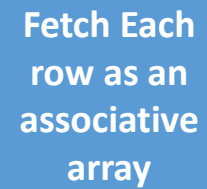


Short Hand to inject
SQL in PHP Code you
could either use
simple string toos

```
if(!$result = $db->query($sql))  
{ die('There was an error running the query [' . $db->error . ']); }
```

Output query results

```
while($row = $result->fetch_assoc())  
{  
    echo $row['username'] . '<br />';  
}
```



Fetch Each
row as an
associative
array

Number of returned rows

```
<?php  
echo 'Total results: ' . $result->num_rows;  
?>
```

Number of affected rows

```
<?php  
echo 'Total rows updated: ' . $db->affected_rows;  
?>
```


Free result

```
$result->free();
```

Escaping characters

```
$db->real_escape_string('This is an unescaped "string"');
```

Or

```
$db->escape_string('This is an unescape "string"');
```

Close that connection

- `$db->close();`

Prepared Statements

Define a statement

The Most
preferred way
of doing things

```
$statement = $db->prepare("SELECT `name` FROM `users` WHERE  
`username` = ?");
```

Bind parameters

```
$name = 'Bob'; $statement->bind_param('s', $name);
```

If we had 3 parameters to bind which are of varying types we could use

```
$name = 'Bob'; $statement->bind_param('sdi', $name, $height, $age);
```

Execute the statement

```
$statement->execute();
```

Prepared Example

```
function GetUserName($id)
{
    global $conn;
    $sql = "SELECT name FROM users WHERE id = ?";
    if ($stmt = $conn->prepare($sql)) {
        $stmt->bind_param('i', $id);
        $stmt->execute();
        $stmt->bind_result($name);
        while ($stmt->fetch()) {
            return $name;
        }
        $stmt->close();
    } else {
        echo "Prepare failed: (" . $conn->errno . ") " . $conn->error;
    }
}
```