Use PHP to Access an SQL Database

In this exercise you will need to have access to a SQL database and a webserver. If you:

* already have a webserver you can create your own database, upload these php files to your host and then access the database using php
* don’t have a webhost you can create your own site for free using 000webhost.com and then create your own database, etc.

The process below will describe how to create a php page:

* that will test the connection to the database
* to create a table within the database
* to add a record to your table
* that shows your table

## Access the Database on a Webserver

Once you have access to a webserver and a SQL database, access to the database needs to be established. Access to the database is effected through your webpages, which have to be saved on the site and then run through a browser. You will need to know the following, in order to establish a connection to the database:

Database host – Eg. "localhost"

Database name - "id6595667\_phptest";

Database username – Eg. "id6595667\_andybaker”

Database password – This was chosen when the database was created

### Create a PHP Web Page

In a text editor create a new PHP Page. The PHP code sits in the <body> section of the page, inside the php tags.

<?php

 ALL PHP CODE MUST GO INSIDE THESE MARKERS

?>

## Connection test script

Change these for your database values

<html>

<head>

<title>Database Connection Test</title>

</head>

<body>

<h1>Connection Test</h1>

<?php

//SQL Database connection details

$db\_host="localhost";

$db\_name="id6595667\_phptest";

$db\_username="id6595667\_andybaker";

$db\_password="??????????";

//Connect to the SQL Database

$con=mysqli\_connect($db\_host, $db\_username, $db\_password, $db\_name);

if (mysqli\_connect\_error())

 {

 echo "Failed to connect to MySQL: ", mysqli\_connect\_error();

 }

else

 {

 echo "Congratulations, you're connected to: ", $db\_name;

 }

mysqli\_close($con)

?>

</body>

</html>

Save the page with a suitable name and upload it to your webhost. Test this by opening the page in a web browser. Eg. <https://andybaker.000webhostapp.com/phpConnectionTest.php>

### Add PHP Code to Create a Table

Add this code to the end of the previous PHP script but before the closing instruction -*mysqli\_close($connection)*



Test this by loading the page in your browser. The first time you ‘run’ it, you should get a success message but if you refresh the page (in effect, run the php script a second time) you will get an error message because the table already exists!

### Adding Data to the Table

Replace the table creation section with the following and *save the page with a new name*.



Test this as you did before.

## Look at the Table in *phpMyAdmin*, on the 000webhost

 Log on to the control panel of the host webserver and choose ‘Manage database’ from the top menu. Click on ‘Manage’ next to the database name and choose ‘PhpMyAdmin’. In the left column, expand the database by clicking on the + sign. Find the table that you created and expand that too. You should see the name of the person that you inserted into your table!

### View the Table in your Web Page

Replace the table creation section again with the following and *save the page with a new name.*



Test this as you did before.

## What Next?

Find out what echo "<br>" does

Add more fields to your table

Add more tables

Play!