AGE OF EMPIRES

ONLINE PORTAL

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PROBLEM STATEMENT

To make a website for Age of Empires II players to come and search for players of their skill level or search for some information on Civilizations and Units of the game.

ABSTRACT

The website will be capable of finding a suitable match for a user from the database using the skill rating of the player. New players can be added or an existing player can be removed. An advanced search option with more filters is also available which can show player information based on its attributes.

The advanced search option is also available for searching specific units or civilization information.

FRONT END HTML CSS JavaScript

BACK END MySQL PHP

ASSUMPTIONS

* **Each Player can have only one favourite Civilization.**
* **Each Civilization can have only one Wonder.**
* **Each Civilization can have only one Unique Unit.**
* **Each Civilization can have multiple Buildings and one building**

**can be available to multiple Civilizations.**

* **Each Civilization can have multiple Units and one Unit can be available to multiple Civilizations.**
* **Each Civilization can have multiple Researches and one Research can be available to multiple Civilizations.**
* **A Research can reside in only one Building. A Building can house multiple researches.**

**Based on the above assumptions, we draw the ER Diagram.**

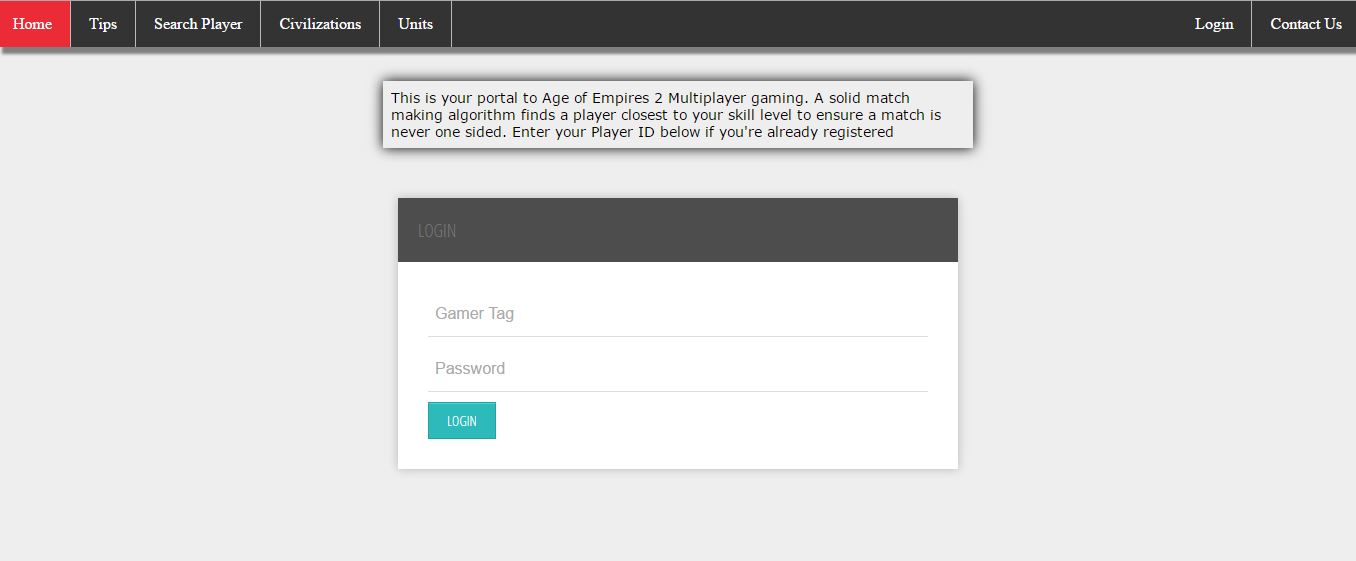
**UI DESIGN**

**The portal has been divided into 5 webpages.**

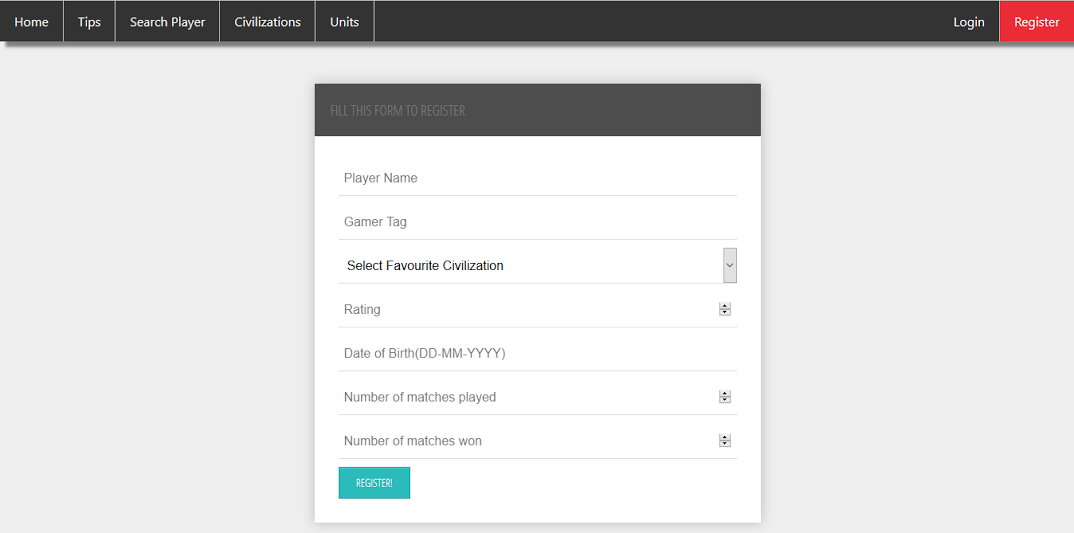
**The existing Users will be able to login into the portal from the login page.**

**The login simply requires a unique *Player ID* and their chosen *password*.**

**The login page looks like this:**



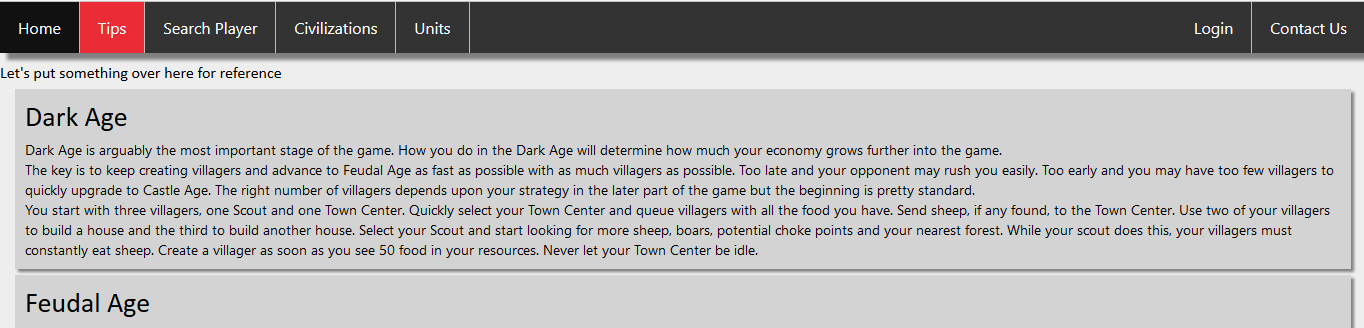
**New Users can register into the portal the portal from the Register page. The Register page looks like this:**



**Other pages included are:**

* **Tips: This page has been built keeping in mind the *n00bs*, i.e. the players who are new to the game. The page provides guidelines and instructions for various ages which will help the *n00bs* to take their game to the next level.**

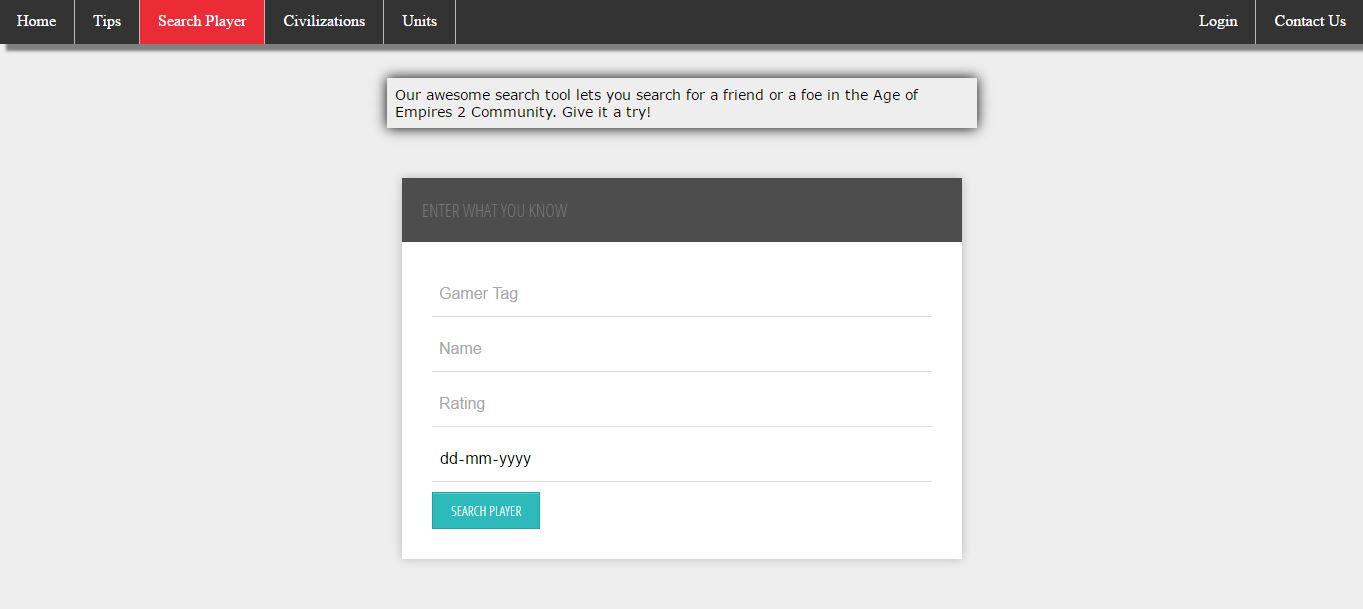
**Snippet:**

****

* **Search Player: This page is helps the User search for other users in the existing database. The search functionality gives the user freedom to search another player on basis of their ratings, favourite civilizations, units, their date of birth, etc.**

**The aim is to provide the players the best possible playing experience against players of similar skill.**

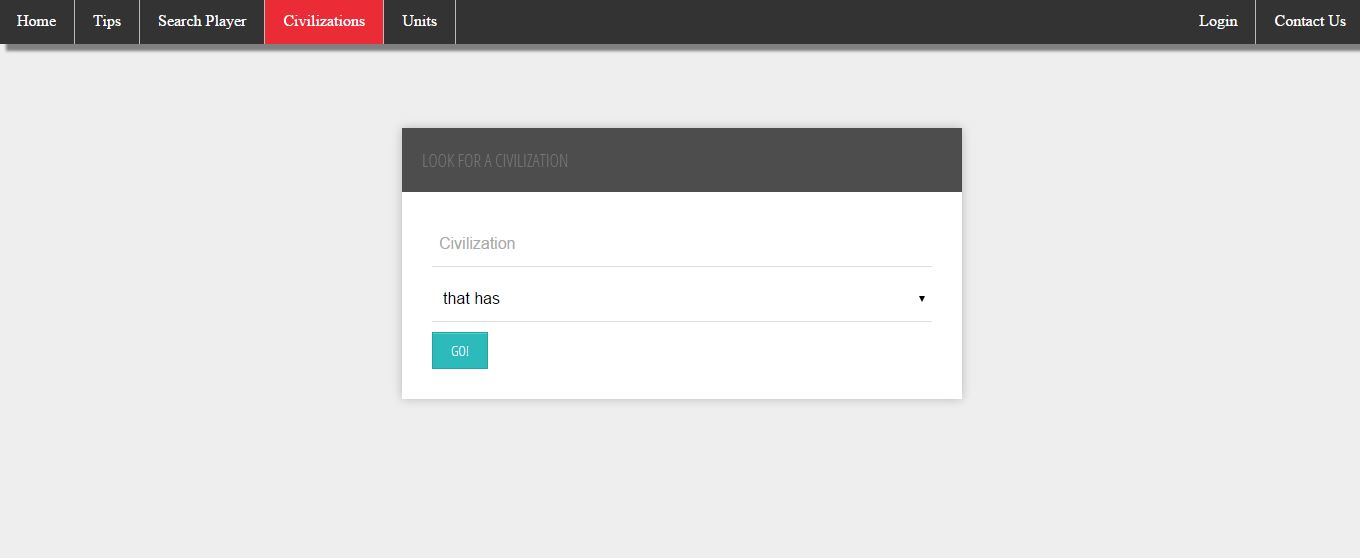
**Snippet:**



* **Civilizations: This is an informative page which briefs the various civilizations available in the game.**

**The *civilization units, technologies, buildings,* etc. are all listed in a very user friendly fashion.**

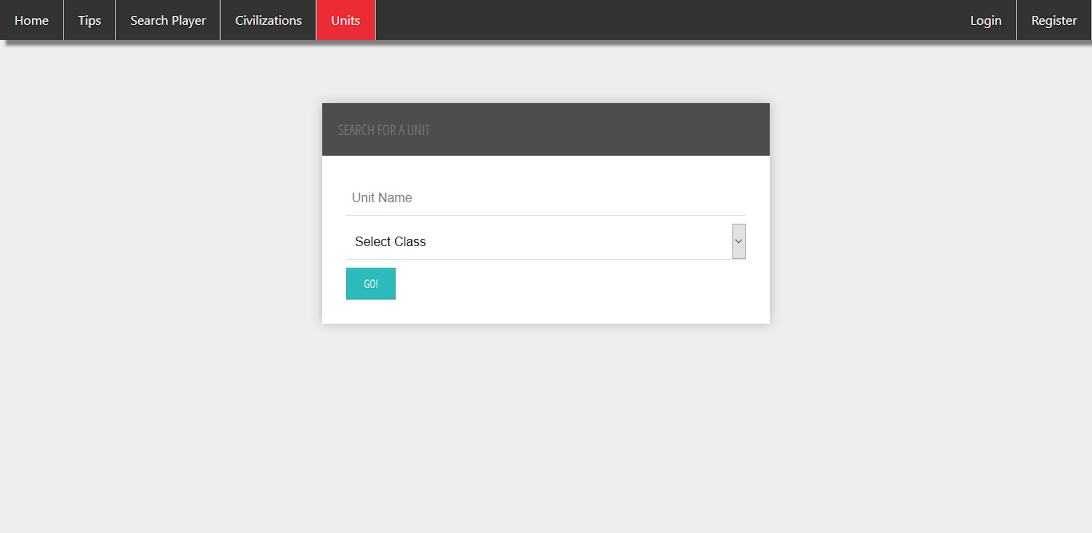
**Snippet:**

****

* **Units: Like Civilizations, this page too is meant to provide users with in depth knowledge of the game. The Units page provides the data about each unit.**

**The data like unit's *HP, attack, speed,* etc. are all provided.**

**Snippet:**



**DCL COMMANDS**

***Base tables: Unit, Building, Wonder, Unique\_unit***

**create table unit(**

**un\_name varchar(30) primary key,**

**hit\_points number(3, 0),**

**attack number(2, 0),**

**melee\_armour number(2, 0),**

**pierce\_armour number(2, 0),**

**range number(2, 0)**

**);**

**create table wonder(**

**w\_name varchar(30) primary key,**

**location varchar(30));**

**create table unique\_unit(**

**uq\_name varchar(30) primary key,**

**hit\_points number(3,0),**

**attack number(2, 0),**

**melee\_armour number(2, 0),**

**pierce\_armour number(2, 0),**

**range number(2, 0)**

**);**

**create table building(**

**build\_name varchar(30) primary key,**

**hit\_points number(4, 0),**

**attack number(2, 0),**

**range number(2, 0)**

**);**

**create table civilization(**

**civ\_name varchar(30) primary key,**

**unique\_unit varchar(30) references unique\_unit(uq\_name),**

**unique\_tech varchar(30),**

**wonder varchar(30) references wonder(w\_name)**

**);**

**create table research(**

**res\_name varchar(30) primary key,**

**description varchar(60),**

**building varchar(30) references building(build\_name)**

**);**

**create table player(**

**p\_name varchar(30),**

**gamertag varchar(20) primary key,**

**date\_of\_birth varchar(9),**

**civ\_name varchar(30) references civilization(civ\_name),**

**played number(4, 0),**

**won number(4, 0),**

**rating number(4, 0)**

**);**

**create table civ\_has\_buildings(**

**civ\_name varchar(30) references civilization(civ\_name),**

**build\_name varchar(30) references building(build\_name),**

**primary key(civ\_name, build\_name)**

**);**

**create table civ\_has\_research(**

**civ\_name varchar(30) references civilization(civ\_name),**

**res\_name varchar(30) references research(res\_name),**

**primary key(civ\_name, res\_name)**

**);**

**create table civ\_has\_unit(**

**civ\_name varchar(30) references civilization(civ\_name),**

**un\_name varchar(30) references unit(un\_name),**

**primary key(civ\_name, un\_name)**

**);**

SAMPLE QUERIES

INSERT INTO CIVILIZATION VALUES('Britons', 'Longbowmen', 'Yeomen');

INSERT INTO CIVILIZATION VALUES ('Japenese', 'Samurai', 'Kataparuto');

INSERT INTO CIVILIZATION VALUES ('Mongols', 'Mangudai', 'Drill');

INSERT INTO CIVILIZATION VALUES(('Persians', War Elephant', 'Mahouts');

INSERT INTO CIVILIZATION VALUES ('Saracens', 'Mameluke', 'Zealotry');

INSERT INTO CIVILIZATION VALUES ('Teutons', 'Teutonic Knight', 'Crenellations');

INSERT INTO CIVILIZATION VALUES ('Turks', 'Jannissary', 'Artillery');

INSERT INTO CIVILIZATION VALUES( 'Vikings', 'Berserker', 'Berserkergang');

INSERT INTO `civ\_has\_buildings` (`civ\_name`, `build\_name`) VALUES ('Teutons', 'Bombard Tower'), ('Turks', 'Bombard Tower');

INSERT INTO `civ\_has\_buildings` (`civ\_name`, `build\_name`) VALUES ('Britons', 'Fortified Wall'), ('Byzantines', 'Fortified Wall');

INSERT INTO `civ\_has\_research` (`civ\_name`, `res\_name`) VALUES ('Byzantines', 'Atonement'), ('Chinese', 'Atonement');

INSERT INTO `civ\_has\_research` (`civ\_name`, `res\_name`) VALUES ('Saracens', 'Atonement'), ('Teutons', 'Atonement');

INSERT INTO `civ\_has\_research` (`civ\_name`, `res\_name`) VALUES ('Teutons', 'Block Printing'), ('Vikings', 'Block Printing');

INSERT INTO `civ\_has\_unit` (`civ\_name`, `un\_name`) VALUES ('Britons', 'Arbalest'), ('Byzantines', 'Arbalest');

INSERT INTO `civ\_has\_unit` (`civ\_name`, `un\_name`) VALUES ('Mongols', 'Arbalest'), ('Saracens', 'Arbalest');

SCHEMA ENTITIES

CIV\_RESEARCHES

CIV\_NAME

RES\_NAME

CIV\_UNITS

CIV\_NAME

UN\_NAME

BUILDING

BUILD\_NAME

HIT\_POINTS

ATTACK

RANGE

WONDER

W\_NAME

LOCATION

UNIT

U\_NAME

HIT\_POINTS

ATTACK

MELEE\_ARMOUR

PIERCE\_ARMOUR

RANGE

RESEARCH

Res\_name

description

building

CIVILIZATION

CIV\_NAME

Uq\_nAME

UNIQUE\_TECH

w\_NAME

CIV\_BUILDINGS

CIV\_NAME

BUILD\_NAME

UNIQUE\_UNIT

UQ\_NAME

HIT\_POINTS

ATTACK

MELEE\_ARMOUR

PIERCE\_ARMOUR

RANGE

PLAYER

Name

gamertag

date\_of\_birth

fav\_civ

Played

won

rating

CODE SNIPPETS

**The following snippet is a PHP code which handles the registration process for new users.**

<?php

error\_reporting(0);

if(isset($\_POST['register']))

{

$username="root";

$password="tdkdetective";

$database="aoe2db";

$conn = mysql\_connect('localhost',$username,$password);

@mysql\_select\_db($database) or die( "Unable to select database");

$pName=isset($\_POST['pName']) ? $\_POST['pName'] : '';

$gTag=isset($\_POST['gTag']) ? $\_POST['gTag'] : '';

$civName=isset($\_POST['civName']) ? $\_POST['civName'] : '';

$rating=isset($\_POST['rating']) ? intval($\_POST['rating']) : '';

$dob=isset($\_POST['dob']) ? $\_POST['dob'] : '';

$played=isset($\_POST['played']) ? intval($\_POST['played']) : '';

$won=isset($\_POST['won']) ? intval($\_POST['won']) : '';

$query = "INSERT INTO player (p\_name, gamertag, date\_of\_birth, civ\_name, played, won, rating) VALUES('$pName','$gTag',

'$dob','$civName','$played', '$won', '$rating')";

echo "<script type='text/javascript'>window.alert('You are now a Wololo Warrior!')</script>";

$result = mysql\_query($query, $conn) or die('Error'. mysql\_error());

}

?>

**The following snippet is a part of the PHP code which helps the user to search for a unit on the basis of name and other fields.**

$conn = mysql\_connect('localhost',$username,$password);

@mysql\_select\_db($database) or die( "Unable to select database");

if($\_POST['uName'] != '')

{

$name = $\_POST['uName'];

$query = "SELECT \* from unit where un\_name = '$name'";

$results = mysql\_query($query, $conn) or die("Error:".mysql\_error());

if(mysql\_num\_rows($results) == 0)

echo "No such unit found";

else

{

echo "<div class='CSSTableGenerator'><table>

<tr>

<th>Unit Name<th>Hit Points<th>Attack<th>Melee Armour<th>Pierce Armour<th>Range<th>Production Building

</tr>";

while ($row = mysql\_fetch\_array($results))

{

echo "<tr><td>". $row['un\_name']. "<td>". $row['hit\_points']. "<td>". $row['attack']. "<td>". $row['melee\_armour']. "<td>". $row['pierce\_armour']. "<td>". $row['attack\_range']. "<td>". $row['from\_building']. "</tr>";

}

echo "</table></div>";

}

}

else

{

if($\_POST['unitType'] == "regular")

{

$building = $\_POST['building'];

$query = "SELECT \* from unit where from\_building = '$building'";

$results = mysql\_query($query, $conn) or die("Error:".mysql\_error());

if(mysql\_num\_rows($results) == 0)

echo "No such unit found";

else

{

echo "<div class='CSSTableGenerator'><table>

<tr>

<th>Unit Name<th>Hit Points<th>Attack<th>Melee Armour<th>Pierce Armour<th>Range<th>Production Building

</tr>";

while ($row = mysql\_fetch\_array($results))

{

echo "<tr><td>". $row['un\_name']. "<td>". $row['hit\_points']. "<td>". $row['attack']. "<td>". $row['melee\_armour']. "<td>". $row['pierce\_armour']. "<td>". $row['attack\_range']. "<td>". $row['from\_building']. "</tr>";

}

echo "</table></div>";

}

}

**The following snippet is a CSS code which beautifies the Tips page.**

#top

{

font-size: 18px;

padding-left: 10px;

padding-right: 10px;

font-family: gothic;

}

#tip

{

position: relative;

margin-top: 6px;

margin-left: 15px;

margin-right: 15px;

text-align: left;

padding: 10px;

background-color: #d3d3d3;

box-shadow: 3px 3px 2px grey;

}

#topic

{

font-size: 28px;

}

#sub

{

position: relative;

font-size: 14px;

font-family: gothic;

margin-top: 5px;

}

**The following is a snippet from the header of the HTML file for our Home Page.**

<!DOCTYPE html>

<html>

<head>

<title>AoX-Home Page</title>

<link href="../static/style.css" rel="stylesheet"/>

<link href='http://fonts.googleapis.com/css?family= Open+Sans+Condensed:300' rel='stylesheet' type='text/css'>

<!-- Compiled and minified CSS -->

<link rel="stylesheet" href=

"https://cdnjs.cloudflare.com/ajax/libs/materialize/0.97.6/css/materialize.min.css">

<!-- Compiled and minified JavaScript -->

<script src=

"https://cdnjs.cloudflare.com/ajax/libs/materialize/0.97.6/js/materialize.min.js"></script>

</head>

<body>

REFERENCES

**Almost all of the extra help we received was from the web. The following websites/links, apart from the curriculum, were the concrete reason this project was made possible:**

[**http://www.tutorialspoint.com/php/**](http://www.tutorialspoint.com/php/)

[**http://php.net/manual/en/book.mysql.php**](http://php.net/manual/en/book.mysql.php)

[**http://www.w3schools.com/php/php\_mysql\_intro.asp**](http://www.w3schools.com/php/php_mysql_intro.asp)

[**https://www.youtube.com/channel/TeachMeComputer**](https://www.youtube.com/channel/TeachMeComputer)

[**https://thenewboston.com/**](https://thenewboston.com/)

[**http://stackoverflow.com/questions/tagged/php**](http://stackoverflow.com/questions/tagged/php)

[**http://www.mysqltutorial.org/**](http://www.mysqltutorial.org/)

[**http://www.php-mysql-tutorial.com/**](http://www.php-mysql-tutorial.com/)