

**Computer Resource Centre – Piliyandala Education Zone
Prince of Wales College, Moratuwa**

Web Development Workshop - PHP

PHP (PHP: Hypertext Preprocessor)

PHP is a powerful tool for making dynamic and interactive Web pages and it is similar to the ASP. PHP is executed on the server hence we call it to server side scripting Language. PHP supports many databases such as MySQL, Informix, Oracle etc. PHP is open source software and it is free to download from the Internet. PHP runs on different platforms such as Windows, Linux, Unix, etc. Install Apache (or IIS) on your own server, install PHP, and MySQL (Install WAMP or LAMP Server)

WAMP (Windows Apache MySQL PHP)

LAMP (Linux Apache MySQL PHP)

PHP files have a file extension of ".php", ".php3", or ".phtml"

PHP code is executed on the server, and the plain HTML result is sent to the browser.

```
<html><body>
<?php
echo "Hello World";
?>
</body></html>
```

Comments in PHP

```
<html><body>
<?php
//This is a comment
/*
This is
a comment
block
*/
?>
</body></html>
```

Variables in PHP

```
$var_name = value;
```

Example 1

```
<?php
$txt="Hello World!";
$x=16;
?>
```

Example 2

```
<?php
$txt="Hello World";
echo $txt;
?>
```

PHP Operators

This section lists the different operators used in PHP.

Arithmetic Operators

Operator	Description	Example	Result
+	Addition	$x=2$ $x+2$	4
-	Subtraction	$x=2$ $5-x$	3
*	Multiplication	$x=4$ $x*5$	20
/	Division	$15/5$ $5/2$	3 2.5
%	Modulus (division remainder)	$5\%2$ $10\%8$ $10\%2$	1 2 0
++	Increment	$x=5$ $x++$ or $x=x+1$	$x=6$
--	Decrement	$x=5$ $x--$ or $x=x-1$	$x=4$

Assignment Operators

Operator	Example	Is The Same As
=	$x=y$	$x=y$
+=	$x+=y$	$x=x+y$
-=	$x-=y$	$x=x-y$
=	$x=y$	$x=x*y$
/=	$x/=y$	$x=x/y$
.=	$x.=y$	$x=x.y$
%=	$x\%=y$	$x=x\%y$

Comparison Operators

Operator	Description	Example
==	is equal to	$5==8$ returns false
!=	is not equal	$5!=8$ returns true
<>	is not equal	$5<>8$ returns true
>	is greater than	$5>8$ returns false
<	is less than	$5<8$ returns true
>=	is greater than or equal to	$5>=8$ returns false
<=	is less than or equal to	$5<=8$ returns true

Logical Operators

Operator	Description	Example
&&	and	x=6 y=3 (x < 10 && y > 1) returns true
	or	x=6 y=3 (x==5 y==5) returns false
!	not	x=6 y=3 !(x==y) returns true

if Statement

Syntax

if (*condition*) *code to be executed if condition is true*;

Example

```
<html>
<body>

<?php
$d=date("D");
if ($d=="Fri")
    echo "Have a nice weekend!";
else
    echo "Have a nice day!";
?>

</body>
</html>
```

While Loops

Syntax

```
while (condition)
{
    code to be executed;
}
```

Example

```
<html><body>
<?php
$i=1;
while($i<=5)
{
    echo "The number is " . $i . "<br />";
    $i++;
}
?>
</body></html>
```

For Loops

Syntax

```
for (init; condition; increment)  
{  
  code to be executed;  
}
```

Example

```
<html><body>  
<?php  
for ($i=1; $i<=5; $i++)  
{  
  echo "The number is " . $i . "<br />";  
}  
?>  
</body></html>
```

PHP Examples

Example 1

Practice with Variables.

```
<html>
<head>
<title>Variables - Some Practice</title>
</head>
<body>

<?php

print("It Worked!<br>");
echo ("Hello World!<br>");
$x=6.6;
$y=6;
$name='kuma';
$Lname='Livera';
echo($x+$y);
print("<br>".$x*$y);print("<br>".$x/$y);
print("<br>".$name." ".$Lname);

?>

</body>
</html>
```

Example 2 :

Input your information in one web page and display them in another web page.

Login Entry Form

Profile	
Name	<input type="text" value="Kumari"/>
Age	<input type="text" value="25"/>
Email	<input type="text" value="k123@gmail.com"/>
Country	<input type="text" value="Sri Lanka"/> <input type="button" value="v"/>
Comments	<input type="text" value="Useful"/> <input type="button" value="v"/>
<input type="button" value="Submit"/> <input type="button" value="Reset"/>	

```

<html>
<head>
<title>Data Entry Form</title>
</head>
<body>

<FORM NAME ="form1" METHOD ="post" ACTION = "detailForm.php">
<table width="93%" border="1">
  <tr>
    <td colspan="4"><div align="center"><strong>Profile</strong></div></td>
  </tr>
  <tr>
    <td width="22%">Name</td>
    <td colspan="3"><input name="myname" type="text" id="myname" size="30"></td>
  </tr>
  <tr>
    <td>Age</td>
    <td colspan="3"><input name="age" type="text" size="30"></td>
  </tr>
  <tr>
    <td>Email</td>
    <td colspan="3"><input name="email" type="text" size="30"></td>
  </tr>
  <tr>
    <td>Country</td>
    <td colspan="3"><select name="country">
      <option>Sri Lanka</option>
      <option>Japan</option>
      <option>India</option>
      <option>Australia</option>
      <option>Bangladesh</option>
      <option>England</option>
    </select></td>
  </tr>
  <tr>
    <td>Comments</td>
    <td colspan="3"><textarea name="comments" cols="50" rows="5" id="comments"></textarea></td>
  </tr>
  <tr>
    <td>&nbsp;</td>
    <td width="38%" colspan="2"><input name="submit" type="submit" value="Submit"></td>
    <td width="40%"><input name="reset" type="reset" value="Reset"></td>
  </tr>
</table>
</form>
<p>&nbsp;</p></body></html>

```

detailForm.php

Output

```

<html>
<head>
<title>User Details Form</title>

<?PHP

$name = $_POST['myname'];
$age = $_POST['age'];
$email = $_POST['email'];
$comments = $_POST['comments'];
$country = $_POST['country'];
echo ("<b>". "Hello! ".$name."</b>");
echo ("<br><br>". "You are ".$age." years old");
echo ("<br><br>". "Your email is ".$email);
echo ("<br><br>". "You commented our web site as : ".$comments);
echo ("<br><br>". "You are from ".$country);

?>
</head><body></body></html>
    
```

Hello! Kumari

You are 25 years old

Your email is k123@gmail.com

You commented our web site as : Useful

You are from Sri Lanka

Example 3 :

Input more information in one web page and display them in another web page.

Login Entry Form

Profile	
First Name	<input type="text" value="Shama"/>
Last Name	<input type="text" value="Ranasingha"/>
Date of Birth	<input type="text" value="12/02/1990"/>
Gender	<input type="radio"/> Male <input checked="" type="radio"/> Female
Profession	<input type="text" value="Teacher"/>
Email	<input type="text" value="shamaran@gmail.com"/>
School / University	<input type="text" value="Musaeus College"/>
Country	<input type="text" value="Sri Lanka"/> ▼
Comments	<input style="width: 90%;" type="text" value="Very nice site."/>
Hobbies	<input checked="" type="checkbox"/> Swimming <input checked="" type="checkbox"/> Reading <input type="checkbox"/> Other
<input type="button" value="Submit"/> <input type="button" value="Reset"/>	

```

<html><head><title>Data Entry Form</title></head><body>
<form action="detailForm2.php" method="post" name="form2">
  <table width="59%" border="1">
    <tr>
      <td colspan="4"><div align="center"><strong>Profile</strong></div></td>
    </tr>
    <tr>
      <td width="16%">First Name</td>
      <td colspan="3"><input name="fname" type="text" size="30"></td>
    </tr>
    <tr>
      <td>Last Name</td>
      <td colspan="3"><input name="lname" type="text" size="30"></td>
    </tr>
    <tr>
      <td>Date of Birth</td>
      <td colspan="3"><input name="dob" type="text" size="30"></td>
    </tr>
    <tr>
      <td>Gender</td>
      <td colspan="2"><input type="radio" name="gen" value="male">
        Male</td>
      <td width="39%"><input name="gen" type="radio" value="female" checked>
        Female </td>
    </tr>
    <tr>
      <td>Profession</td>
      <td colspan="3"><input name="profession" type="text" size="30"></td>
    </tr>
    <tr>
      <td>Email</td>
      <td colspan="3"><input name="email" type="text" size="30"></td>
    </tr>
    <tr>
      <td>School / University</td>
      <td colspan="3"><input name="school" type="text" size="30"></td>
    </tr>
    <tr>
      <td>Country</td>
      <td colspan="3"><select name="country">
        <option>Sri Lanka</option>
        <option>Japan</option>
        <option>India</option>
        <option>Australia</option>
        <option>Bangladesh</option>
        <option>England</option>
      </select></td>
    </tr>
  </table>

```

```

<tr>
  <td>Comments</td>
  <td colspan="3"><textarea name="comments" cols="50" rows="5" ></textarea></td>
</tr>
<tr>
  <td>Hobbies</td>
  <td width="24%"><input type="checkbox" name="h1" value="swimming">
    Swimming </td>
  <td width="21%"><input name="h2" type="checkbox" value="reading" checked>
    Reading</td>
  <td><input type="checkbox" name="h3" value="other">
    Other</td>
</tr>
<tr>
  <td>&nbsp;</td>
  <td colspan="2"><input name="submit" type="submit" value="Submit"></td>
  <td><input name="reset" type="reset" value="Reset"></td>
</tr>
</table>
</form>
<p>&nbsp;</p>
</body></html>

```

detailForm2.php

Output

```

<html><head>
<title>User Details Form</title>

<?PHP
$name = $_POST['fname'];$lname = $_POST['lname'];
$dob = $_POST['dob'];$gen = $_POST['gen'];
$prof = $_POST['profession'];$email = $_POST['email'];
$school = $_POST['school'];$country =
$_POST['country'];$comments = $_POST['comments'];
$h1 = $_POST['h1'];$h2 = $_POST['h2'];$h3 = $_POST['h3'];

echo ("<b>". "Hello! ". $fname. " ". $lname. "</b>");
echo ("<br><br>". "Your Date of Birth was ". $dob);
if ($gen=='male'){
    $gender='Gentleman';}
else{
    $gender='Lady';}
echo ("<br><br>". "You are a cute ". $gender. " and also a ". $prof);
echo ("<br><br>". "Your email is ". $email);
echo ("<br><br>". "You studied at ". $school. " in ". $country);
echo ("<br><br>". "You commented our web site as : ". $comments);
echo ("<br><br>". "Your hobbies are : ". <br><br>". $h1. "<br>". $h2. "<br>". $h3);
?>
</head><body></body></html>

```

```

Hello! Shana Ranasingha

Your Date of Birth was 12/02/1990

You are a cute Lady and a Teacher

Your email is shamaran@gmail.com

You studied at Musaeus College in Sri Lanka

You commented our web site as : Very nice site.

Your hobbies are :

swimming
reading

```

PHP with MYSQL Database – Example

login.html

```

<html>
<body>
<form action="login.php" method="post">
  <table>
    <tr>
      <td align="center" colspan="2">
        <h4>Login</h4>
      </td>
    </tr>
    <tr>
      <td align="right">
        Login ID:
      </td>
      <td>
        <input name="login" type="text" />
      </td>
    </tr>
    <tr>
      <td align="right">
        Password:
      </td>
      <td>
        <input name="password" type="password" />
      </td>
    </tr>
    <tr>
      <td colspan="2" align="center">
        <input type="submit" value="Login" />
      </td>
    </tr>
  </table>
</form>
</body>
</html>

```

The image shows a visual representation of the HTML code provided. It features a rectangular box with a black border. At the top center, the word 'Login' is written in a bold, black font. Below this title, there are two rows of labels and input fields. The first row has the label 'Login ID:' on the left and a white text input box on the right. The second row has the label 'Password:' on the left and a white password input box on the right. Below the password input box, there is a blue button with the word 'Login' written on it in white text.

login.php

```

<?php
$login=$_POST['login'];

$username="root";
$password="";
$dbase="contact";

mysql_connect(localhost, $username, $password) or die("Cannot connect to database.");
mysql_select_db($dbase) or die( "Unable to select database");
$query="SELECT * FROM person WHERE login = '$login'";
$result=mysql_query($query);
$num=mysql_numrows($result);
mysql_close();

$url = "login.html";
$i=0;
while ($i < $num) {
    $password=mysql_result($result,$i,"password");
    if ($password == $_POST['password']) {
        $url = "index.php";
        session_start();
        $_SESSION = array();
        $_SESSION["person_id"] = mysql_result($result,$i,"id");
        $_SESSION["person_name"] = mysql_result($result,$i,"name");
        break;
    }
    $i++;
}
?>

<html>
<body>
<head>
<meta http-equiv="refresh" content="0; url=<?php echo $url;?>">
</head>
</body>
</html>

```

index.php

```

<?php
require_once("session.php");
?>

<html>
<body bgcolor="#9999FF">
Hello, <?php echo
$_SESSION["person_name"]; ?>
<br>
<table width="600">
  <caption>
  <h4><strong><font color="#0000CC">Address Book</font></strong></h4>
  </caption>
  <tr>
    <td align="center"> <strong><A href="create.php">Create</A> </strong></td>
  </tr>
  <tr>
    <td align="center"> <strong><A href="listall.php">List All</A> </strong></td>
  </tr>
  <tr>
    <td align="center"> <strong><A href="search.php">Search</A> </strong></td>
  </tr>
</table>
</form>
</body>
</html>

```

Hello, Nayana Navoda

Address Book[Create](#)[List All](#)[Search](#)**create.php**

```

<?php
require_once("session.php");
?>

<html>
<body bgcolor="#66CC66">
<form action="insert.php" method="post">
  <table>
    <tr>
      <td align="center" colspan="2"> <h4>Create a
Record</h4></td>
    </tr>
    <tr>
      <td align="right"><strong> Login ID: </strong></td>
      <td> <input name="login" type="text" /> </td>
    </tr>
    <tr>
      <td align="right"><strong> Password: </strong></td>

```

Create a RecordLogin ID: Password: Name: Comment: E-Mail Address: [Goto the menu](#)

```

    <td> <input name="password" type="password" /> </td>
</tr>
<tr>
    <td align="right"><strong> Name: </strong></td>
    <td> <input name="name" type="text" /> </td>
</tr>
<tr>
    <td align="right"><strong> Comment: </strong></td>
    <td> <input name="comment" type="text" /> </td>
</tr>
<tr>
    <td align="right"><strong> E-Mail Address: </strong></td>
    <td> <input name="mail" type="text" /> </td>
</tr>
<tr>
    <td> </td>
    <td> <div align="center">
        <input type="submit" />
    </div></td>
</tr>
</table>
</form><A href="index.php">Goto the menu</A></body></html>

```

insert.php

```

<?php
require_once("session.php");

$username="root";
$password="";
$database="contact";

$login=$_POST['login'];
$password=$_POST['password'];
$name=$_POST['name'];
$comment=$_POST['comment'];
$mail=$_POST['mail'];

mysql_connect(localhost, $username, $pass) or die("Cannot connect to database.");
mysql_select_db($database) or die("Unable to select database.");

$query = "INSERT INTO person VALUES (0,$login','$password','$name','$comment','$mail)";
mysql_query($query) or die("Cannot execute query.");

mysql_close();
?>

<html>
<body>
<h4>Record Inserted.</h4>

```

Record Inserted.

[Goto the menu](#)

```
<A href="index.php">Goto the menu</A>
</body></html>
```

listall.php

List All				
Login ID	Name	Comment	E-Mail Address	Delete
tan	Tan	Our Lecturer	tan@jica_laptop.com	Delete
nayana	Nayana Navoda	CM	nmbwitharana@yahoo.com	Delete
rosi	Roshini	Student		Delete
abc	Nayana	test		Delete
ajith	Ajith Peiris	friend	ajith@yahoo.com	Delete

[Goto the menu](#)

```
<?php
require_once("session.php");
?>

<html>
<body>
<table border="1" width="600">
  <caption><h3>List All</h3></caption>
  <tr>
    <th align="center">Login ID</th>
    <th align="center" width="200">Name</th>
    <th align="center">Comment</th>
    <th align="center">E-Mail Address</th>
    <th>Delete</th>
  </tr>

  <?php
$username="root";
$password="";
$database="contact";

mysql_connect(localhost, $username, $password) or die("Cannot connect to database.");//connect to the local
machine database using username, passwd
mysql_select_db($database) or die( "Unable to select database");//open database otherwise disp msg or exit
$query="SELECT * FROM person";// select all records having same user name and passwd
$result=mysql_query($query);
$num=mysql_numrows($result); //return the num of rows
mysql_close();

$i=0;
//loop the all the records
while ($i < $num) {
```

```
//take off all fields
$id=mysql_result($result,$i,"id");
$login=mysql_result($result,$i,"login");
$name=mysql_result($result,$i,"name");
$comment=mysql_result($result,$i,"comment");
$mail=mysql_result($result,$i,"mail");

//output details
echo "<tr>\n";
echo "<td><a href='edit.php?id=$id'$>$login</a></td>\n"; //specify which user you edit by using ID
echo "<td>$name</td>\n";
echo "<td>$comment</td>\n";
echo "<td>$mail</td>\n";
echo "<td><a href='confirm.php?id=$id'$>Delete</a></td>\n";
echo "</tr>\n";
$i++;
}
?>
</table>
<br>
<A href="index.php">Goto the menu</A>
</body>
</html>
```

edit.php

Edit	
Login ID:	<input type="text" value="nayana"/>
Password:	<input type="password" value="●●●"/>
Name:	<input type="text" value="Nayana Navoda"/>
Comment:	<input type="text" value="CM"/>
E-Mail Address:	<input type="text" value="nmbvitharana@yahoo.c"/>
<input type="button" value="Update"/>	
Goto the menu	

```
<?php
require_once("session.php");
?>

<html>
<body>
<form action="update.php" method="post">
<table border="1" width="600">
<caption><h3>Edit</h3></caption>
```

```

<?php
$id=$_GET['id'];

$username="root";
$password="";
$database="contact";

mysql_connect(localhost, $username, $password) or die("Cannot connect to database.");
mysql_select_db($database) or die( "Unable to select database");
$query="SELECT * FROM person WHERE id = $id";
$result=mysql_query($query);
$num=mysql_numrows($result);
mysql_close();

$i=0;
while ($i < $num) {

    $id=mysql_result($result,$i,"id");
    $login=mysql_result($result,$i,"login");
    $password=mysql_result($result,$i,"password");
    $name=mysql_result($result,$i,"name");
    $comment=mysql_result($result,$i,"comment");
    $mail=mysql_result($result,$i,"mail");

    echo "<tr>\n";
    echo "<td align='right'>Login ID:</td>\n";
    echo "<td><input type='text' name='login' value='\$login'/></td>\n";
    echo "</tr>\n";

    echo "<tr>\n";
    echo "<td align='right'>Password:</td>\n";
    echo "<td><input type='password' name='password' value='\$password'/></td>\n";
    echo "</tr>\n";

    echo "<tr>\n";
    echo "<td align='right'>Name:</td>\n";
    echo "<td><input type='text' name='name' value='\$name'/></td>\n";
    echo "</tr>\n";

    echo "<tr>\n";
    echo "<td align='right'>Comment:</td>\n";
    echo "<td><input type='text' name='comment' value='\$comment'/></td>\n";
    echo "</tr>\n";

    echo "<tr>\n";
    echo "<td align='right'>E-Mail Address:</td>\n";
    echo "<td><input type='text' name='mail' value='\$mail'/></td>\n";
    echo "</tr>\n";

    echo "<input type='hidden' name='id' value='$id'/>\n";

```

```

    $i++;
}
?>
<tr>
  <td colspan="3" align="center">
    <input type='submit' value='Update' />
  </td>
</tr>
</form>

</table>
<br>
<A href="index.php">Goto the menu</A>
</body></html>

```

update.php

```

<?php
require_once("session.php");

$username="root";
$password="";
$dbase="contact";

$id=$_POST['id'];
$login=$_POST['login'];
$password=$_POST['password'];
$name=$_POST['name'];
$comment=$_POST['comment'];
$mail=$_POST['mail'];

mysql_connect(localhost, $username, $pass) or die("Cannot connect to database.");
mysql_select_db($dbase) or die("Unable to select database.");

$query="UPDATE person1 SET login='$login', password='$password', name='$name',
comment='$comment', mail='$mail' WHERE id = $id";
mysql_query($query) or die("Cannot execute query($query).");

mysql_close();
?>

<html>
<body>
<h4>Record updated.</h4>
<A href="index.php">Goto the menu</A>
</body>
</html>

```



delete.php

```

<?php
require_once("session.php");
?>

<?php
$id=$_POST['id'];

$username="root";
$password="";
$dbase="contact";

mysql_connect(localhost, $username, $password) or die("Cannot connect to database.");
mysql_select_db($dbase) or die( "Unable to select database");
$query="DELETE FROM person WHERE id = $id";
mysql_query($query) or die ("Cannot delete record($query).");
mysql_close();
?>

</form>
<html>
<body>
<h4>Record deleted.</h4>
<A href="index.php">Goto the menu</A>
</body>
</html>

```

confirm.php

Is it OK to delete the following record?			
Login ID	Name	Comment	E-Mail Address
abc	Nayana	test	
<input type="button" value="Delete"/>			

[Goto the menu](#)

```

<?php
require_once("session.php");
?>

<html><body>
<form action="delete.php" method="post">
<table border="1" width="600">
<caption><h3>Is it OK to delete the following record?</h3></caption>
<tr>
<th align="center">Login ID</th>
<th align="center">Name</th>
<th align="center">Comment</th>
<th align="center">E-Mail Address</th>
</tr>

```

```

<?php

$Sid=$_GET['id'];

$username="root";
$password="";
$database="contact";

mysql_connect(localhost, $username, $password) or die("Cannot connect to database.");
mysql_select_db($database) or die( "Unable to select database");
$query="SELECT * FROM person WHERE id = $id";
$result=mysql_query($query);
$num=mysql_numrows($result);
mysql_close();

$i=0;
while ($i < $num) {

$Sid=mysql_result($result,$i,"id");
$logins=mysql_result($result,$i,"login");
$name=mysql_result($result,$i,"name");
$comment=mysql_result($result,$i,"comment");
$mail=mysql_result($result,$i,"mail");

echo "<tr>\n";
echo "<td>$logins</td>\n";
echo "<td>$name</td>\n";
echo "<td>$comment</td>\n";
echo "<td>$mail</td>\n";
echo "</tr>\n";
echo "<input type=\"hidden\" name='id' value='$Sid'/>\n";
$i++;
}
?>
<tr>
<td colspan="4" align="center">
<input type='submit' value='Delete' />
</td>
</tr>
</form>

</table>
<br>
<A href="index.php">Goto the menu</A>
</body></html>

```

search.php

Search

Name: <input style="width: 150px;" type="text" value="nayana"/>
<input type="button" value="Search"/>

Search

Login ID	Name	Comment	E-Mail Address	Delete
nayana	Nayana Navoda	CM	nmbvitharana@yahoo.com	Delete
abc	Nayana	test		Delete

[Goto the menu](#)

```
<?php
require_once("session.php");
?>
```

```
<html><body>
```

```
<form action="search.php" method="post">
<table border="1" width="800">
  <caption><h3>Search</h3></caption>
  <tr>
    <td align="right">Name:</td>
  </tr>
  <?php
  $key=$_POST['key'];
  echo "<td><input type='text' name='key' value='\$key' /></td>\n"
?>
  </tr>
  <tr>
    <td colspan="2" align="center">
      <input type='submit' value='Search' />
    </td>
  </tr>
</table>
</form>
```

```
<table border="1" width="800">
  <caption><h3>Search</h3></caption>
  <tr>
    <th align="center">Login ID</th>
    <th align="center">Name</th>
    <th align="center">Comment</th>
    <th align="center">E-Mail Address</th>
    <th>Delete</th>
  </tr>
```

```
<?php
$id=$_POST['id'];

$username="root";
$password="";
$database="contact";
```

```

mysql_connect(localhost, $username, $pass) or die("Cannot connect to database.");
mysql_select_db($database) or die( "Unable to select database");
$query="SELECT * FROM person";
if ($key != "") {
    $query .= " WHERE name LIKE '%$key%'";
}
$result=mysql_query($query) or die("Cannot execute query($query).");
$num=mysql_numrows($result);
mysql_close();

$i=0;
while ($i < $num) {

    $id=mysql_result($result,$i,"id");
    $login=mysql_result($result,$i,"login");
    $name=mysql_result($result,$i,"name");
    $comment=mysql_result($result,$i,"comment");
    $mail=mysql_result($result,$i,"mail");

    echo "<tr>\n";
    echo "<td><a href='edit.php?id=$id'>$login</a></td>\n";
    echo "<td>$name</td>\n";
    echo "<td>$comment</td>\n";
    echo "<td>$mail</td>\n";
    echo "<td><a href='confirm.php?id=$id'>Delete</a></td>\n";
    echo "</tr>\n";
    $i++;
}
?>
</table>
<br>
<A href="index.php">Goto the menu</A>
</body>
</html>

```

session.php

```

<?php
session_start();
// Check if session exists
if (!isset($_SESSION['person_id'])) {
    header("Location:login.html");
    exit();
}
?>

```

MySQL

SQL is a standard language for accessing and manipulating databases.

SQL stands for Structured Query Language

SQL is an ANSI (American National Standards Institute) standard

What Can SQL do?

- SQL can execute queries against a database
- SQL can retrieve data from a database
- SQL can insert records in a database
- SQL can update records in a database
- SQL can delete records from a database
- SQL can create new databases
- SQL can create new tables in a database

RDBMS

- RDBMS stands for Relational Database Management System.
- RDBMS is the basis for SQL, and for all modern database systems such as MS SQL Server, IBM DB2, Oracle, MySQL, and Microsoft Access.
- The data in RDBMS is stored in database objects called tables. A table is a collection of related data entries and it consists of columns and rows. Also called records (rows) and fields (columns).

Example for a database:- contacts

Tables of payroll system can be:- friends, relatives, others

Friends Table

ID	Name	Country	Gender	Email
1	Rangana	Sri Lanka	Female	rangana@gmail.com
2	Geetha	India	Female	geethah@gmail.com
3	Yoshi	Japan	Male	yoshi@jaica.jp

Field names

Record

Structure of the "Friends" Table

Field names	Data Types & field sizes	Null	Key
ID	int	no	PRI
Name	varchar (40)	yes	
Country	varchar (20)	yes	
Gender	varchar (6)	yes	
Email	varchar (30)	yes	

SQL data types

Numeric Data Types

- **INT** – A normal-sized integer that can be signed or unsigned. If signed, the allowable range is from -2147483648 to 2147483647. If unsigned, the allowable range is from 0 to 4294967295. You can specify a width of up to 11 digits.
- **TINYINT** – A very small integer that can be signed or unsigned. If signed, the allowable range is from -128 to 127. If unsigned, the allowable range is from 0 to 255. You can specify a width of up to 4 digits.
- **SMALLINT** – A small integer that can be signed or unsigned. If signed, the allowable range is from -32768 to 32767. If unsigned, the allowable range is from 0 to 65535. You can specify a width of up to 5 digits.
- **MEDIUMINT** – A medium-sized integer that can be signed or unsigned. If signed, the allowable range is from -8388608 to 8388607. If unsigned, the allowable range is from 0 to 16777215. You can specify a width of up to 9 digits.
- **BIGINT** – A large integer that can be signed or unsigned. If signed, the allowable range is from -9223372036854775808 to 9223372036854775807. If unsigned, the allowable range is from 0 to 18446744073709551615. You can specify a width of up to 20 digits.
- **FLOAT(M,D)** – A floating-point number that cannot be unsigned. You can define the display length (M) and the number of decimals (D). This is not required and will default to 10,2, where 2 is the number of decimals and 10 is the total number of digits (including decimals). Decimal precision can go to 24 places for a FLOAT.
- **DOUBLE(M,D)** – A double precision floating-point number that cannot be unsigned. You can define the display length (M) and the number of decimals (D). This is not required and will default to 16,4, where 4 is the number of decimals. Decimal precision can go to 53 places for a DOUBLE. REAL is a synonym for DOUBLE.
- **DECIMAL(M,D)** – An unpacked floating-point number that cannot be unsigned. In the unpacked decimals, each decimal corresponds to one byte. Defining the display length (M) and the number of decimals (D) is required. NUMERIC is a synonym for DECIMAL.

Date and Time Types

The MySQL date and time datatypes are as follows –

- **DATE** – A date in YYYY-MM-DD format, between 1000-01-01 and 9999-12-31. For example, December 30th, 1973 would be stored as 1973-12-30.
- **DATETIME** – A date and time combination in YYYY-MM-DD HH:MM:SS format, between 1000-01-01 00:00:00 and 9999-12-31 23:59:59. For example, 3:30 in the afternoon on December 30th, 1973 would be stored as 1973-12-30 15:30:00.
- **TIMESTAMP** – A timestamp between midnight, January 1st, 1970 and sometime in 2037. This looks like the previous DATETIME format, only without the hyphens between numbers; 3:30 in the afternoon on December 30th, 1973 would be stored as 19731230153000 (YYYYMMDDHHMMSS).
- **TIME** – Stores the time in a HH:MM:SS format.
- **YEAR(M)** – Stores a year in a 2-digit or a 4-digit format. If the length is specified as 2 (for example YEAR(2)), YEAR can be between 1970 to 2069 (70 to 69). If the length is specified as 4, then YEAR can be 1901 to 2155. The default length is 4.

String Types

- **CHAR(M)** – A fixed-length string between 1 and 255 characters in length (for example CHAR(5)), right-padded with spaces to the specified length when stored. Defining a length is not required, but the default is 1.
- **VARCHAR(M)** – A variable-length string between 1 and 255 characters in length. For example, VARCHAR(25). You must define a length when creating a VARCHAR field.
- **BLOB or TEXT** – A field with a maximum length of 65535 characters. BLOBs are "Binary Large Objects" and are used to store large amounts of binary data, such as images or other types of files. Fields defined as TEXT also hold large amounts of data. The difference between the two is that the sorts and comparisons on the stored data are **case sensitive** on BLOBs and are **not case sensitive** in TEXT fields. You do not specify a length with BLOB or TEXT.
- **TINYBLOB or TINYTEXT** – A BLOB or TEXT column with a maximum length of 255 characters. You do not specify a length with TINYBLOB or TINYTEXT.
- **MEDIUMBLOB or MEDIUMTEXT** – A BLOB or TEXT column with a maximum length of 16777215 characters. You do not specify a length with MEDIUMBLOB or MEDIUMTEXT.

- **LONGBLOB or LONGTEXT** – A BLOB or TEXT column with a maximum length of 4294967295 characters. You do not specify a length with LONGBLOB or LONGTEXT.
- **ENUM** – An enumeration, which is a fancy term for list. When defining an ENUM, you are creating a list of items from which the value must be selected (or it can be NULL). For example, if you wanted your field to contain "A" or "B" or "C", you would define your ENUM as ENUM ('A', 'B', 'C') and only those values (or NULL) could ever populate that field.

MY SQL – commands

To see existing Databases

```
mysql>show databases;
```

Create New Database (database name is “contact”)

```
mysql>create database contact;
mysql>use contact;
```

Create New Table (table name is person)

```
mysql>create table person (id int not null auto_increment, login varchar(30), password varchar(15), name varchar(30), comment varchar(255), email varchar(30), primary key (id));
```

To see existing Table in your database

```
mysql>show tables;
```

To see structure of the table

```
mysql>describe person;
```

Insert a record to the table “person”

```
mysql>insert into person values (0, 'lal', '123lal', 'Lalani Abenayaka', 'This web site is useful', 'lalani@gmail.com');
```

See all records in the table “person”

```
mysql>select * from person;
```

Search records in the table “person”

```
mysql>select * from person where id=2;
mysql>select * from person where name="kamani";
mysql>select * from person where country="Japan" and gender="male";
mysql>select * from person where country="Japan" or country="India";
```

Update records in the table “person”

mysql>**update** person set comment=”Very Good” where id=1;

Delete records in the table “person”

mysql>**delete** from person where id=2;

Sort data in a Table

mysql>select * from person **order by** name asc;

mysql>select * from person **order by** name desc;

Group records in a table to find sum, average, and count

mysql>select count(id) from person **group by** country;

To change the field size of a field

mysql>Alter table person **modify** name varchar(40);

To add field to a table

mysql>Alter table person **add** phone varchar(12);

Remove field from a table

mysql>Alter table person **drop** country;

Remove a table from the database

mysql>**drop** table person;

Remove database

mysql>**drop** database contact;