**CHHATTISGARH SWAMI VIVEKANAND TECHNICAL UNIVERSITY, BHILAI (C. G.)**

Semester: **B.E. 8th** Branch: **Computer Science & Engg.**

Subject: **Software Technology Lab** Code: **322863(22)**

**LAB MANUAL**

**INTRODUCTION**

* PHP: Hypertext Preprocessor and extension ‘.php’
* Open source server side scripting language
* Programming language
* Create dynamic content that interacts with database
* Integrated with MySQL, Oracle, Sybase, Informix, and Microsoft SQL Server.
* Manage dynamic content, databases, session tracking, even build entire e-commerce sites.
* PHP is whitespace insensitive
* PHP is case sensitive
* Expressions are combinations of tokens
* Creating (Declaring) PHP Variables

**Example**

<?php  
$txt = "Hello world!";  
$x = 5;  
$y = 10.5;  
?>

**PHP Array**

<?php   
$cars = array("Volvo","BMW","Toyota");  
var\_dump($cars);  
?>

**PHP Object**

**Example**

<?php  
class Car {  
    function Car() {  
        $this->model = "VW";  
    }  
}  
// create an object  
$herbie = new Car();  
// show object properties  
echo $herbie->model;  
?>

**The PHP foreach Loop**

**Example**

<?php   
$colors = array("red", "green", "blue", "yellow");   
foreach ($colors as $value) {  
    echo "$value <br>";  
}  
?>

**PHP Global Variables – Superglobals**

The PHP superglobal variables are:

* $GLOBALS
* $\_SERVER
* $\_REQUEST
* $\_POST
* $\_GET
* $\_FILES
* $\_ENV
* $\_COOKIE
* $\_SESSION

**Example – PHP $GLOBALS**

<?php   
$x = 75;   
$y = 25;  
function addition() {   
    $GLOBALS['z'] = $GLOBALS['x'] + $GLOBALS['y']; }  
addition();   
echo $z;   
?>

**Example – PHP $\_SERVER**

<?php   
echo $\_SERVER['PHP\_SELF'];  
echo "<br>";  
echo $\_SERVER['SERVER\_NAME'];  
echo "<br>";  
echo $\_SERVER['HTTP\_HOST'];  
echo "<br>";  
echo $\_SERVER['HTTP\_REFERER'];  
echo "<br>";  
echo $\_SERVER['HTTP\_USER\_AGENT'];  
echo "<br>";  
echo $\_SERVER['SCRIPT\_NAME'];  
?>

**Experiment-1**

Write an application in php that contains a textbox in which the user has to enter a name and a textarea in which the user has to enter his comments. When the Submit is clicked, the output should display the name entered in the textbox and the user-selection from the listbox. All the above should be displayed with the tracing for the page being enabled

**PROGRAM**

<html>

<body>

<?php

// define variables and set to empty values

$name = $email = $gender = "";

if ($\_SERVER["REQUEST\_METHOD"] == "POST") {

$name = test\_input($\_POST["name"]);

$email = test\_input($\_POST["email"]);

$comment = test\_input($\_POST["comment"]);

$gender = test\_input($\_POST["gender"]);

//$ = test\_input($\_POST["email"]);

}

function test\_input($data) {

$data = trim($data);

$data = stripslashes($data);

$data = htmlspecialchars($data);

return $data;

} ?>

<form action="<?php echo htmlspecialchars($\_SERVER["PHP\_SELF"]);?>" method="post">

Name: <input type="text" name="name"><br><br>

E-mail: <input type="text" name="email"><br> <br>

Comment: <textarea name="comment" rows="5" cols="40">

</textarea>

<br><br>

Gender:

<br><input type="radio" name="gender" value="male">Male <br>

<input type="radio" name="gender" value="female">Female <br> <br>

<p>SELECT YOUR SUBJECT<br><br>

<select type="listbox" name="subject[]" size="3">

<option value="PHP" selected>PHP</option>

<option value="JAVA">JAVA</option>

<option value="VB .NET">VB .NET</option>

<option value="CLOUD">CLOUD</option>

<option value="ANDROID">ANDROID</option>

</select>

<br><br>

<input type="submit" value="submit">

</form>

<?php

echo "<h2>Your Input:</h2>";

echo $name;

echo "<br>";

echo $comment;

echo "<br>";

echo $email;

echo "<br>";

echo $gender;

?>

<?php if (is\_array($\_POST ['subject'] ))

{

print "<p>Your subject choices are:</p>";

print "<ul>";

foreach ( $\_POST ['subject'] as $value )

{

print "<li>$value</li>\n";

}

print "</ul>";

}

?>

</body>

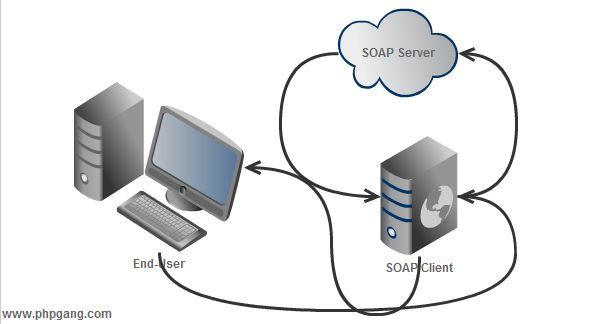
</html>

**Experiment-2**

Create a simple Web Service that converts the temperature from Fahrenheit to Celsius, and vice versa create a simple Web Service that converts the temperature from Fahrenheit to Celsius, and vice versa. Also write an php program to consume this web service.

## [Create a web service with PHP](http://www.phpgang.com/create-a-web-service-with-php_43.html)

Web Service are typical Application Programming Interface (API) or Web APIs can accessed via Hypertext Transfer Protocol (HTTP) with an XML serialization in conjunction with other Web-related standards.



**Web Service:**

* Web services are web application components
* Web services communicate using open protocols
* Web services are self-contained and self-describing
* Web services can be used by other applications
* HTTP and XML is the basis for Web services
* Web services use XML to code and to decode data, and SOAP to transport it (using open protocols).
* With Web services, your accounting department's Win 2k server's billing system can connect with your IT supplier's UNIX server.

**WSDL:**

* WSDL stands for Web Services Description Language**.**
* WSDL is used to describe web services.

**SOAP:**

* SOAP stands for Simple Object Access Protocol
* SOAP is an XML based protocol for accessing Web Services.
* SOAP is based on XML

**Soap Server:-** wsdl. To use the **SoapServer** in WSDL mode, pass the URI of a WSDL file. ... Allow setting a default **SOAP** version (soap\_version), internal character encoding (encoding), and actor URI (actor). The classmap option can be used to map some WSDL types to **PHP** classes.

The main structure of a WSDL document looks like this:

<definitions>  
  
<types>  
  data type definitions........  
</types>  
  
<message>  
  definition of the data being communicated....  
</message>  
  
<portType>  
  set of operations......  
</portType>  
  
<binding>  
  protocol and data format specification....  
</binding>  
  
</definitions>

**WSDL Example**

<message name="getTermRequest">  
  <part name="term" type="xs:string"/>  
</message>  
  
<message name="getTermResponse">  
  <part name="value" type="xs:string"/>  
</message>  
  
<portType name="glossaryTerms">  
  <operation name="getTerm">  
    <input message="getTermRequest"/>  
    <output message="getTermResponse"/>  
  </operation>  
</portType>

**WSDL Binding to SOAP**

**SimpleServer.php**

<?php

// Simple Method get 1 parameter and return with Hello

function AddHello($name)

{

     return "Hello $name";

}

// Create SoapServer object using WSDL file.

// For the simplicity, our SoapServer is set to operate in non-WSDL mode. So we do not need a WSDL file

$server = new SoapServer(null, array('uri'=>'http://localhost/hello'));

// Add AddHello() function to the SoapServer using addFunction().

$server->addFunction("AddHello");

// To process the request, call handle() method of SoapServer.

$server->handle();

?>

**Soap Client allows you to communicate with server**

**SimpleClient.php**

<?php

include "nusoap.php"; //Soap Library.

try {

// Create a soap client using SoapClient class

// Set the first parameter as null, because we are operating in non-WSDL mode.

// Pass array containing url and uri of the soap server as second parameter.

$client = new soapclient(null, array(

'location' => "http://localhost/hello/HelloServer.php",

'uri' => "http://localhost/hello"));

// Read request parameter

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

// Invoke AddHello() method of the soap server (HelloServer)

$result = $client->AddHello($param);

echo $result; // Process the the result

}

catch(SoapFault $ex) {

$ex->getMessage();

}

?>

Soap View to interact for end-user

**SimpleView.php**

<?php

echo "<h2>Welcome to PHP Web Service</h2>";

echo "<form action='SimpleClient.php' method='POST'/>";

echo "<input name='name' /><br/>";

echo "<input type='Submit' name='submit' value='Send'/>";

echo "</form>";

?>

**PHP Program to convert the temperature from Fahrenheit to Celsius**

<?php

if($\_POST){

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

    $celsius = ($fahrenheit - 32)\*5/9;

}

?>

<!DOCTYPE html>

<html>

    <head>

        <meta http-equiv="Content-Type" content="text/html; charset=UTF-8">

        <title>Convert Fahrenheit to Celsius in PHP</title>

    </head>

    <body>

        <form action="" method="post">

        Fahrenheit: <input type="text" name="fahrenheit" /><br />

        <?php

        if(isset($celsius)){

            echo "Celsius = ".$celsius;

        }

        ?>

       </form

    </body>

</html>

<form action='tempconvert.asmx/FahrenheitToCelsius'  
method="post" target="\_blank">  
<table>  
  <tr>  
    <td>Fahrenheit to Celsius:</td>  
    <td>  
    <input class="frmInput" type="text" size="30" name="Fahrenheit">  
    </td>  
  </tr>  
  <tr>  
    <td></td>  
    <td align="right">  
     <input type="submit" value="Submit" class="button">  
     </td>  
  </tr>  
</table>  
</form>  
  
<form action='tempconvert.asmx/CelsiusToFahrenheit'  
method="post" target="\_blank">  
<table>  
  <tr>  
    <td>Celsius to Fahrenheit:</td>  
    <td>  
    <input class="frmInput" type="text" size="30" name="Celsius">  
    </td>  
  </tr>  
  <tr>  
    <td></td>  
    <td align="right">  
    <input type="submit" value="Submit" class="button">  
    </td>  
  </tr>  
</table>  
</form>

**Experiment-3**

a) Write a Program in php that has a form taking the user s name as input. Store this name in a permanent cookie & whenever the page is opened again, then value of the name field should be attached with the cookie s content.

**PROGRAM**

1. login.html

<html>

<head>

<title>User Logon</title>

</head>

<body>

<h2>User Login </h2>

<form name="login" method="post" action="login.php">

Username: <input type="text" name="username"><br>

Password: <input type="password" name="password"><br>

Remember Me: <input type="checkbox" name="rememberme" value="1"><br>

<input type="submit" name="submit" value="Login!">

</form>

</body>

</html>

2. login.php

<?php

/\* These are our valid username and passwords \*/

$user = 'jayesh';

$pass = 'csit';

if (isset($\_POST['username']) && isset($\_POST['password'])) {

if (($\_POST['username'] == $user) && ($\_POST['password'] == $pass)) {

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

{

/\* Set cookie to last 1 year \*/

setcookie('username', $\_POST['username'], time()+60\*60\*24\*365, '/account', 'www.example.com');

setcookie('password', md5($\_POST['password']), time()+60\*60\*24\*365, '/account', 'www.example.com');

if(!isset($\_COOKIE["username"]))

{ echo "Cookie named '" . "username" . "' is not set!"; }

else

{ echo "Cookie '" . "username" . "' is set!<br>";

echo "Value is: " . $\_COOKIE["username"]; }

} else { /\* Cookie expires when browser closes \*/

setcookie('username', $\_POST['username'], false, '/account', 'www.example.com');

setcookie('password', md5($\_POST['password']), false, '/account', 'www.example.com');

} header('Location: index.php'); } else {

echo 'Username/Password Invalid'; }

} else { echo 'You must supply a username and password.'; } ?>

3. index.php

<?php

/\* These are our valid username and passwords \*/

$user = 'jayesh';

$pass = 'csit';

if (isset($\_COOKIE['username']) && isset($\_COOKIE['password'])) {

if (($\_POST['username'] != $user) || ($\_POST['password'] != md5($pass))) {

header('Location: login.html');

} else {

echo 'Welcome back ' . $\_COOKIE['username'];

}

} else {

header('Location: login.html');

} ?>

b) Write a Program to delete all cookies of your web site that has created on the client s computer.

**PROGRAM**

**SET Cookie and check it**

<?php

$cookie\_name = "user";

$cookie\_value = 'CSIT';

setcookie($cookie\_name,$cookie\_value,time() + (86400 \* 7)); // 86400 = 1 day ?>

<html> <body>

<?php

if(!isset($\_COOKIE[$cookie\_name])) {

echo "Cookie named '" . $cookie\_name . "' is not set!"; } else {

echo "Cookie '" . $cookie\_name . "' is set!<br>";

echo "Value is: " . $\_COOKIE[$cookie\_name]; } ?>

</body> </html>

**DELETE Cookie**

<?php  
// set the expiration date to one hour ago  
setcookie("user", "", time() - 3600);  
?>  
<html>  
<body>  
<?php  
echo "Cookie 'user' is deleted.";  
?>  
</body>  
</html>

**Check if Cookies are Enabled**

<?php  
setcookie("test\_cookie", "test", time() + 3600, '/');  
?>  
<html>  
<body>  
<?php  
if(count($\_COOKIE) > 0) {  
    echo "Cookies are enabled.";  
} else {  
    echo "Cookies are disabled.";  
} ?>  
</body>  
</html>

**Experiment – 4 (Form Validation)**

a) Write a HTML file to create a simple form with 5 input fieldsviz. Name, Password, Email, Pincode, Phone No. and a Submit button.

b)Write a PHP program to demonstrate required field validations to validate that all input fields are required

c) Write a PHP program to validate Name, Email and Password

d)Write a PHP program to display error messages if the above validations do not hold.

**PROGRAM**

<html> <body>

<?php

// define variables and set to empty values

$nameErr = $emailErr = $genderErr = "";

$name = $email = $gender = "";

if ($\_SERVER["REQUEST\_METHOD"] == "POST") {

if(empty($\_POST["name"])) {

$nameErr = "Name is required";

} else {

$name = test\_input($\_POST["name"]);

} }

if ($\_SERVER["REQUEST\_METHOD"] == "POST") {

if(empty($\_POST["email"])) {

$emailErr = "Please Enter Valid Email\_Only & include '.' and '@'";

} else {

$email = test\_input($\_POST["email"]);

} }

if ($\_SERVER["REQUEST\_METHOD"] == "POST") {

if(empty($\_POST["gender"])) {

$genderErr = "Please Select Gender";

} else {

$gender = test\_input($\_POST["gender"]);

} }

function test\_input($data) {

$data = trim($data);

$data = stripslashes($data);

$data = htmlspecialchars($data);

return $data;

}

?>

<form action="<?php echo htmlspecialchars($\_SERVER["PHP\_SELF"]);?>" method="post">

Name: <input type="text" name="name"><br><br>

E-mail: <input type="text" name="email"><br>

Gender:

<br><input type="radio" name="gender" value="male">Male <br>

<input type="radio" name="gender" value="female">Female <br>

<input type="submit" value="submit">

</form>

<?php

echo "<h2>Your Input:</h2>";

echo $name;

echo "<br>";

echo $email;

echo "<br>";

echo $gender;

echo "<br>";

echo "<h3>Error:</h3>";

echo $nameErr;

echo "<br>";

echo $emailErr;

echo "<br>";

echo $genderErr;

?>

</body>

</html>

**Experiment-5**

Create a form for your college library entering student details for each student in the college. Validate the form using PHP validators and display error messages.

**PROGRAM** – Same as previous

**Experiment – 6 (File Handling)**

a) Create a PHP program to demonstrate opening and closing a file

**PHP Open File - fopen()**

**Example**

<?php  
$myfile = fopen("webdictionary.txt", "r") or die("Unable to open file!");  
echo fread($myfile,filesize("webdictionary.txt"));  
fclose($myfile);  
?>

**PHP Close File - fclose()**

<?php  
$myfile = fopen("webdictionary.txt", "r");  
// some code to be executed....  
fclose($myfile);  
?>

b) Create a PHP program to demonstrate reading a file

**PHP Read File - fread()**

**PHP Read Single Line - fgets()**

**Example**

<?php  
$myfile = fopen("webdictionary.txt", "r") or die("Unable to open file!");  
echo fgets($myfile);  
fclose($myfile);  
?>

c) Create a PHP program to demonstrate writing in a file.

**$myfile = fopen("testfile.txt", "w")**

**PHP Write to File - fwrite()**

**Example**

<?php  
$myfile = fopen("newfile.txt", "w") or die("Unable to open file!");  
$txt = "John Doe\n";  
fwrite($myfile, $txt);  
$txt = "Jane Doe\n";  
fwrite($myfile, $txt);  
fclose($myfile);  
?>

**Experiment-7**

Create a PHP program to read the following text from a file csvtu.txt “Chhattisgarh Swami Vivekanand Technical University, Bhilai ” And write to another file learningphp.txt.

**PROGRAM**

<?php

error\_reporting(0);

echo "Firstly Create a Source file....and \r\n then add some contents and \r\n save in the desired location then run this program.....";

$fs=fopen("Exp-8\_Source\_File.txt", "r");

$ft=fopen("Exp-8\_Destination\_File.txt", "w");

if ($fs==NULL)

{

echo "Can't Open Source File ...";

exit(0);

}

if ($ft==NULL)

{

echo "Can't Open Destination File ...";

fclose ($fs);

exit(1);

}

else

{

while ($ch=fgets($fs))

fputs($ft, $ch);

fclose ($fs);

fclose ($ft);

}

echo "File Handling successfully ...\r\n";

echo "The contents are added in the \r\n Destination File - Exp-8\_Destination\_File.txt successfully...";

?>

**Experiment – 8 (Session Tracking based)**

**PHP Session –** When you work with an application, you open it, do some changes, and then you close it. This is much like a Session. It knows when you start the application and when you end. Session variables stores user information that is to be used across multiple pages. By default, session variables last until the user closes the browser. So; Session variables hold information about one single user, and are available to all pages in one application.

a) Write a PHP program to start a PHP Session.

**Start a PHP Session**

A session is started with the session\_start() function. Session variables are set with the PHP global variable: $\_SESSION. Now, let's create a new page called "demo\_session1.php". In this page, we start a new PHP session and set some session variables:

**PROGRAM**

**Example**

<?php  
// Start the session  
session\_start();  
?>  
<!DOCTYPE html>  
<html>  
<body>  
<?php  
// Set session variables  
$\_SESSION["favcolor"] = "green";  
$\_SESSION["favanimal"] = "cat";  
echo "Session variables are set.";  
?>  
</body>  
</html>

b) Write a PHP program to destroy a PHP Session.

<?php

session\_start();

?>

<!DOCTYPE html>

<html>

<body>

<?php

// remove all session variables

session\_unset();

// destroy the session

session\_destroy();

?>

</body>

</html>

c) WAP to create a PHP Session without cookies.

ini\_set('session.use\_cookies', 0);

ini\_set('session.use\_only\_cookies', 0);

ini\_set('session.use\_trans\_sid', 1);

**ini\_set("session.cache\_limiter", "");**

session\_start();

// IP check

if($\_SESSION['ip\_check'] != $\_SERVER['REMOTE\_ADDR']){

session\_regenerate\_id();

session\_destroy();

session\_start();

}

$\_SESSION['ip\_check'] = $\_SERVER['REMOTE\_ADDR'];

// session stuff

d) Write a PHP program to store current date-time in a COOKIE and display the “Last visited on date-time on the web page upon reopening of the same page.

<?php

$sec30=60\*60\*24\*30+time();

setcookie('lastVisit',date("g:i:s - d/m/y"),$sec30);

?>

<html>

<body bgcolor="yellow">

<p style="color:red">Hello

<?php

$visit =$\_COOKIE['lastVisit'];

if(isset($\_COOKIE['lastVisit']))

echo "Your last visit was=".$visit;

else

echo "You've got some stale cookies!";

?>

</p>

</body>

</html>

e) Write a PHP program to store page views count in SESSION, to increment the count on each refresh, and to show the count on web page.

<?php

session\_start();

session\_register("count");

?>

<html>

<body bgcolor="yellow">

<p style="color:red">

<?php

$\_SESSION["count"]++;

echo "You have visited this page ".$\_SESSION["count"]." times during this SESSION";

?>

</body>

</html>

**Experiment – 9 (Students may use Php/ASP/JSP/Servlet as per their choice)**

Develop a web based application for displaying student mark list. Assume that student information is available in a database which has been stored in a database server.

<html>

<body bgcolor="yellow"">

<?php

$dbh=mysql\_connect('localhost','root','') or die(mysql\_error());

mysql\_select\_db('Prg18') or die(mysql\_error());

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

{

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

$ad1=$\_POST['add1'];

$ad2=$\_POST['add2'];

$eml=$\_POST['email'];

if($nme!="" && $ad1!="" && $ad2!="" && $eml!="")

{

$query="INSERT INTO stprog18 VALUES ('$nme','$ad1','$ad2','$eml')";

$result=mysql\_query($query) or die(mysql\_error());

echo "Information Stored in database successfully!";

}

else

echo "One of the field is empty";

}

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

{

$n=$\_POST['sname'];

if($n=="")

echo "Enter name!";

else

{

$var=mysql\_query("SELECT \* FROM stprog18 WHERE name='$n'") or die("No match found");

$arr=mysql\_fetch\_row($var);

if($arr[0]!="")

{

echo "<table border size=2 align='center'>";

echo "<tr><th>Name</th><th>Address 1</th><th>Address 2</th><th>E-mail</th></tr>";

do

{

echo "<tr><td>$arr[0]</td><td>$arr[1]</td><td>$arr[2]</td><td>$arr[3]</td></tr>";

}while($arr=mysql\_fetch\_row($var));

echo "</table>";

}

else

echo "Record not found";

mysql\_close($dbh);

}

}

?>

<form action="18.php">

<INPUT TYPE=submit value="Refresh">

</form>

<FORM ACTION="18.php" METHOD="POST">

<h3>Enter personel details</h3>

<pre>

Name :<INPUT TYPE="text" NAME="name" value=""><BR>

Address 1 :<INPUT TYPE="text" NAME="add1" value=""><BR>

Address 2 :<INPUT TYPE="text" NAME="add2" value=""><BR>

Email :<INPUT TYPE="text" NAME="email" value=""><BR>

<INPUT TYPE="submit" value="Submit"><INPUT TYPE=reset >

</pre>

</FORM>

<FORM ACTION="18.php" METHOD="POST">

<h3>Search based on Name</h3>

<pre>

Enter name :<INPUT TYPE="text" NAME="sname"><INPUT TYPE="submit" value="Search">

</pre>

</FORM>

</body>

</html>

**Experiment-10**

Write a program in PHP to print the count of word the as an independent word in a text file STORY.TXT. For example, if the content of the file STORY.TXT is “There was a monkey in the zoo. The monkey was very naughty.” Then the output of the program should be 2.

**PROGRAM –**

<?php

if(isset($\_POST['submit'])){

    //get the string

    $string = $\_POST['string'];

    $word\_count = 0;

    //check if the string is not empty then allow it

    if(!empty($string)){

        print $string."<br><br>";

        //lets remove special characters and numbers and keep only A to Z and a to z

        $string\_only\_alphabets = preg\_replace("/[^A-za-z]/", " ", $string);

        //remove unwanted space between words

        $string\_only\_single\_space = preg\_replace("/\s+/", " ", $string\_only\_alphabets);

        $word\_count = count(explode(' ', trim($string\_only\_single\_space)));

    }

    print "Sentence has <b>$word\_count</b> word(s)!";

}

?>

<html>

    <body>

        <h2>Custom PHP program to count the number of words in a string.</h2>

        <form action="" method="post">

            <h3>Write a sentence</h3>

            <textarea name="string"></textarea><br /><br />

            <button name="submit" type="submit">Find Words!</button>

        </form>

    </body>

</html>