SUBJECT NAME: WEB APPLICATION DEVELOPMENT WITH PHP

SUBJECT CODE : SFWP302

1. Introduction to PHP

Definition: PHP is a server scripting language, and a powerful tool for making dynamic and interactive Web pages. PHP is a widely-used, free, and efficient alternative to competitors such as Microsoft's ASP.

Example

```
<html>
<body>
<?php
echo "My first PHP script!"; ?>
</body>
</html>
```

Remember You should have a basic understanding of the following:

- HTML
- CSS
- JavaScript
-

What is PHP?

- PHP is an acronym for "PHP: Hypertext Preprocessor"
- PHP is a widely-used, open source scripting language
- PHP scripts are executed on the server

What is a PHP File?

- PHP files can contain text, HTML, CSS, JavaScript, and PHP code
- PHP code are executed on the server, and the result is returned to the browser as plain HTML
- PHP files have extension ".php"

What Can PHP Do?

- PHP can generate dynamic page content
- PHP can create, open, read, write, delete, and close files on the server
- PHP can collect form data
- PHP can send and receive cookies
- PHP can add, delete, modify data in your database
- PHP can be used to control user-access
- PHP can encrypt data
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With PHP you are not limited to output HTML. You can output images, PDF files.

Why PHP?

- PHP runs on various platforms (Windows, Linux, Unix, Mac OS, etc.)
- PHP is compatible with almost all servers used today (Apache, IIS, etc.)
- PHP supports a wide range of databases
- PHP is easy to learn and runs efficiently on the server side

To start using PHP, you can:

- Find a web host with PHP and MySQL support
- Install a web server on your own PC, and then install PHP and MySQL

Use a Web Host with PHP Support

- If your server has activated support for PHP you do not need to do anything.
- Just create some .php files, place them in your web directory, and the server will automatically parse them for you.
- You do not need to compile anything or install any extra tools.

2. PHP Scripts Basic PHP

Syntax

i. A PHP script can be placed anywhere in the document.
ii. A PHP script starts with **<?php** and ends with **?>**:

```
<?php
// PHP code goeshere
 ?>
```

Example

```
<html>
<body>

<h1>My first PHP page</h1>

<?php
echo "Hello World!";
?>

</body>
</html>
```

NB: PHP statements end with a semicolon (;)

a. Comments in PHP

A comment in PHP code is a line that is not read/executed as part of the program. Its only purpose is to be read by someone who is looking at the code.

Comments can be used to:

i. Let others understand what you are doing

ii. Remind yourself of what you did - Most programmers have experienced coming back to their own work a year or two later and having to re-figure out what they did. Comments can remind you of what you were thinking when you wrote the code

Example 1.

```
<html>
<body>
<?php
// This is a single-line comment
# This is also a single-line comment
/*
This is a multiple-lines comment
block that spans over multiple lines
*/
// You can also use comments to leave out parts of a code line
$x = 5 /* + 15 */ + 5;
echo  $x;
?>
</body>
</html>
```

In the example below, only the first statement will display the value of the $color variable (this is because $color, $COLOR, and $coLOR are treated as three different variables):

Example

```
<html>
<body>
<?php
$color = "red";
echo "My car is " . $color . "<br>";
echo "My house is " . $COLOR . "<br>";
echo "My boat is " . $coLOR . "<br>"; ?>
</body>
</html>
```

b. Data Types

i. Variables can store data of different types, and different data types can do different things.

PHP supports the following data types:

ii. String
iii. Integer
iv. Float (floating point numbers - also called double)
v. Boolean
vi. Array
vii. Object
viii. NULL

3. PHP String

i. A string is a sequence of characters, like "Hello world!".
ii. A string can be any text inside quotes. You can use single or double quotes:

Example

```
<html>
<body>
<?php
$x = "Hello world!";
$y = 'Hello world!';
echo $x;
echo "<br>";
echo $y;
?>
</body>
</html>
```

OUTPUT:

Hello world!
Hello world!

3.1 String Functions

iii. Get The Length of a String
iv. The PHP strlen() function returns the length of a string.
v. The example below returns the length of the string "Hello world!":

Example

```
<html>
<body>
<?php
echo strlen("Hello world!"); ?>
 </body>
</html>
```

OUPUT:

12

3.2 Count The Number of Words in a String

The PHP str_word_count() function counts the number of words in a string:

Example

```
<html>
<body>
<?php
echo str_word_count("Hello world!");
?>
 </body>
</html>
```

OUPUT:

2

3.3 Reverse a String

vi. The PHP strrev() function reverses a string:

Example

```
<html>
<body>
<?php
echo strrev("Hello world!");
?>
 </body>
</html>
```

OUTPUT:

!dlrow olleH

3.4 Search For a Specific Text Within a String

vii. The PHP strpos() function searches for a specific text within a string.
viii. If a match is found, the function returns the character position of the first match. If no match is found, it will return FALSE.
ix. The example below searches for the text "world" in the string "Hello world!":

Example

```
<html>
<body>
<?php
echo strpos("Hello world!", "world");
?>
 </body>
</html>
```

OUPUT:

6

3.5 Replace Text Within a String

x. The PHP str_replace() function replaces some characters with some other characters in a string.
xi. The example below replaces the text "world" with "Dolly":

Example

```
<html>
<body>
<?php
echo str_replace("world", "Dolly", "Hello world!");
?>
 </body>
</html>
```

OUPUT:

Hello Dolly!