



Module Presenter's Manual

for

Web Application Development using PHP

***Effective From: April 2017
Ver. 1.0***

Amendment Record

Version No.	Effective Date	Change	Replaced Pages
1.0	April 2017	New	-

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1. Introduction

At the end of this course, students will be able to:

- Understand the need and history of PHP
- Configure PHP 7
- Learn the new features of PHP 7
- Use Form Handling in PHP
- Use Variables and Expressions in PHP
- Use various types of operators in PHP
- Use conditional and flow control statements in PHP
- Use functions in PHP
- Create and use arrays in PHP
- Describe usage of scalar type declarations in PHP programs
- Describe usage of anonymous classes in PHP programs.
- Implement database management in PHP
- Use cookies in PHP
- Perform session management in PHP
- Manage e-mails using PHP
- Explain OOPS concepts
- Explain generators and generator return expressions
- Configure PHP 7.0.4
- Explain exception handling and changes in exceptions in PHP 7

2. Information on Session Allocation

Module	Online (No. of Hrs)
PHP	36


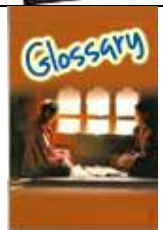






Throughout this Presenter's Manual, the module *Web Application Development using PHP* will be referred to as **PHP**.

3. Session Deliverables

To aid the teaching process, following are the deliverables

(Faculties can access eBooks and other components in Onlinevarsity through Aptrack.)

Resources available on Onlinevarsity:

Icons	Feature - Description / Functionality
	Download eBook - Student has the option to download the subject related e-book and read offline
	Glossary - Student can access a list of subject related specialized words with their definitions.
	FAQ - Student can access frequently asked questions and their answers
	Practice 4 Me - Student can test and evaluate their understanding of module related topics.
	Work Assignments - Student can solve scenario based lab assignments (Hands-on). The faculty will evaluate and give their feedbacks.
	References - Student can access additional subject related material for reading.
	Feedback - Student can provide feedback on the course material
	Ask to Learn – Student can submit subject related technical queries. Queries submitted will be directed to the particular course coordinator/head.

4. Week-wise Session Schedule

- A Session has duration of 2 hours

➤ Week-Wise Schedule

Week	Day 1	Day 2	Day 3	Day 4
1	Session 1 PHP – TL1	Session 2 PHP – TL2	Session 3 PHP – TL3	Session 4 PHP – TL4
2	Session 5 PHP – TL5	Session 6 PHP – TL6	Session 7 PHP – TL7	Session 8 PHP – TL8
3	Session 9 PHP – TL9	Session 10 PHP – TL10	Session 11 PHP – TL11	Session 12 PHP – TL12
4	Session 13 PHP – TL13	Session 14 PHP – TL14	Session 15 PHP – TL15	Session 16 PHP – TL16
5	Session 17 PHP – TL17	Session 18 PHP – TL18		

PHP: Web Application Development using PHP

TL: Online Session

5. Session Coverage

Session No.	Session Title	Session Details	Deliverables' Mapping
1	PHP – TL1	<p>All the topics as listed below from Session 1 of <i>Programming for the Web with PHP</i> book should be covered in this session.</p> <p><u>Session 1 - Introduction to PHP</u></p> <ul style="list-style-type: none"> ➤ Explain the history of PHP. ➤ Identify the need for PHP. ➤ Explain PHP tools and setup. ➤ Explain a simple PHP script. ➤ Explain User Input/Output (I/O). ➤ Explain the use of PHP to generate HTTP headers. ➤ Describe passing of variables using Universal Resource Locator (URL). 	<p>Programming for the Web with PHP</p> <p>SG - Session 1 XP - Session 1 TG - Session 1</p>
2	PHP – TL2	<p>All the topics as listed below from Session 2 of <i>Programming for the Web with PHP</i> book should be covered in this session.</p> <p><u>Session 2 - Installing and Configuring PHP 7.0.4</u></p> <ul style="list-style-type: none"> ➤ Learn the pre-requisites for installing PHP7.0.4 ➤ Install PHP 7.0.4 on your system ➤ Configure PHP 7.0.4 	<p>Programming for the Web with PHP</p> <p>SG - Session 2 XP - Session 2 TG - Session 2</p>
3	PHP – TL3	<p>All the topics as listed below from Session 3 of <i>Programming for the Web with PHP</i> book should be covered in this session.</p> <p><u>Session 3 - New features of PHP 7.0.4</u></p> <ul style="list-style-type: none"> ➤ Explain the intval() function. ➤ Explain spaceship operator. ➤ Explain null coalescing operator. ➤ Describe Scalar Type Declarations. ➤ Explain Uniform Variable Syntax in PHP programs. ➤ Describe use operator. ➤ Explain closure call methods in the 	<p>Programming for the Web with PHP</p> <p>SG - Session 3 XP - Session 3 TG - Session 3</p>

Session No.	Session Title	Session Details	Deliverables' Mapping
		<p>PHP programs.</p> <ul style="list-style-type: none"> ➤ Explain Generator delegation via yield from. ➤ Explain Levels parameter of the dirname() function. 	
4	PHP – TL4	<p>All the topics as listed below from Session 4 of <i>Programming for the Web with PHP</i> book should be covered in this session.</p> <p><u>Session 4 – Form Handling in PHP</u></p> <ul style="list-style-type: none"> ➤ Explain the use of the GET method. ➤ Explain the use of the POST method. ➤ Retrieve data from forms using the Form methods. ➤ Explain the use of hidden fields. 	<p>Programming for the Web with PHP</p> <p>SG - Session 4 XP - Session 4 TG - Session 4</p>
5	PHP – TL5	<p>All the topics as listed below from Session 5 of <i>Programming for the Web with PHP</i> book should be covered in this session.</p> <p><u>Session 5 - Using Variables and Expressions in PHP</u></p> <ul style="list-style-type: none"> ➤ Explain the use of identifiers. ➤ Explain the data types in PHP. ➤ Explain the use of variables and constants. ➤ Explain the scope of variables in PHP. Explain the use of HTTP environment variables. 	<p>Programming for the Web with PHP</p> <p>SG - Session 5 XP - Session 5 TG - Session 5</p>
6	PHP – TL6	<p>All the topics as listed below from Session 7 of <i>Programming for the Web with PHP</i> book should be covered in this session.</p> <p><u>Session 7 – Scalar Type Declarations</u></p> <ul style="list-style-type: none"> ➤ Explain scalar type declarations. ➤ Describe usage of scalar type declarations in PHP programs. ➤ Explain scalar type hinting. ➤ Explain anonymous classes. ➤ Describe usage of anonymous classes 	<p>Programming for the Web with PHP</p> <p>SG - Session 7 XP - Session 7 TG - Session 7</p>

Session No.	Session Title	Session Details	Deliverables' Mapping
		in PHP programs.	
7	PHP – TL7	<p>All the topics as listed below from Session 8 of <i>Programming for the Web with PHP</i> book should be covered in this session.</p> <p><u>Session 8 - PHP Operators</u></p> <ul style="list-style-type: none"> ➤ Explain the use of arithmetic operators. ➤ Explain the use of logical operators. ➤ Explain the use of relational operators. ➤ Explain the use of bitwise operators. ➤ Explain the use of assignment operators. ➤ Explain the use of string operators. ➤ Explain the use of increment and decrement operators. ➤ Explain the use of conditional or ternary operators. ➤ Explain the precedence of operators. 	<p>Programming for the Web with PHP</p> <p>SG - Session 8 XP - Session 8 TG - Session 8</p>
8	PHP – TL8	<p>All the topics as listed below from Session 10 of <i>Programming for the Web with PHP</i> book should be covered in this session.</p> <p><u>Session 10 - Conditional Statements in PHP</u></p> <ul style="list-style-type: none"> ➤ Explain the use of the if statement. ➤ Explain the use of the switch statement. ➤ Explain the use of the ternary (?) operator. 	<p>Programming for the Web with PHP</p> <p>SG - Session 10 XP - Session 10 TG - Session 10</p>
9	PHP – TL9	<p>All the topics as listed below from Session 12 of <i>Programming for the Web with PHP</i> book should be covered in this session.</p> <p><u>Session 12 - Flow Control in PHP</u></p> <ul style="list-style-type: none"> ➤ Explain the use of loops. ➤ Explain the use of jump statements. 	<p>Programming for the Web with PHP</p> <p>SG - Session 12 XP - Session 12 TG - Session 12</p>

Session No.	Session Title	Session Details	Deliverables' Mapping
10	PHP – TL10	<p>All the topics as listed below from Session 14 of <i>Programming for the Web with PHP</i> book should be covered in this session.</p> <p><u>Session 14 - Functions in PHP</u></p> <ul style="list-style-type: none"> ➤ Explain functions in PHP. ➤ Describe the built-in functions in PHP. ➤ Explain the process of creating a user-defined function. ➤ Explain the process of passing arguments to a function. ➤ Explain the process of returning values from a function. ➤ Explain the use of recursive functions. 	<p>Programming for the Web with PHP</p> <p>SG - Session 14 XP - Session 14 TG - Session 14</p>
11	PHP – TL11	<p>All the topics as listed below from Session 16 of <i>Programming for the Web with PHP</i> book should be covered in this session.</p> <p><u>Session 16 - Working with Arrays</u></p> <ul style="list-style-type: none"> ➤ Define an array. ➤ Explain the use of arrays. ➤ Explain the process of merging arrays. ➤ Explain the use of single and multi-dimensional arrays. ➤ Explain the use of array-related functions. 	<p>Programming for the Web with PHP</p> <p>SG - Session 16 XP - Session 16 TG - Session 16</p>
12	PHP – TL12	<p>All the topics as listed below from Session 18 of <i>Programming for the Web with PHP</i> book should be covered in this session.</p> <p><u>Session 18 - Handling Databases with PHP</u></p> <ul style="list-style-type: none"> ➤ Describe Database APIs. ➤ Explain the process of connecting to a database. ➤ Explain the use of data access functions. 	<p>Programming for the Web with PHP</p> <p>SG - Session 18 XP - Session 18 TG - Session 18</p>

Session No.	Session Title	Session Details	Deliverables' Mapping
		<ul style="list-style-type: none"> ➤ Explain SQL queries using PHP. Explain HTML tables using SQL queries. 	
13	PHP – TL13	<p>All the topics as listed below from Session 19 of <i>Programming for the Web with PHP</i> book should be covered in this session.</p> <p><u>Session 19 - Working with Cookies</u></p> <ul style="list-style-type: none"> ➤ Describe the process of setting a cookie. ➤ Explain the process of retrieving a cookie in PHP. ➤ Explain the process to delete a cookie. ➤ Identify the drawbacks associated with cookies. 	<p>Programming for the Web with PHP</p> <p>SG - Session 19 XP - Session 19 TG - Session 19</p>
14	PHP – TL14	<p>All the topics as listed below from Session 21 of <i>Programming for the Web with PHP</i> book should be covered in this session.</p> <p><u>Session 21 - Session Management in PHP</u></p> <ul style="list-style-type: none"> ➤ Define a session. ➤ Explain the procedure to work with a session. ➤ Describe the methods to start a session. ➤ Explain the method to register a session. ➤ Describe the method to end a session. ➤ Explain the use of the php.ini file. 	<p>Programming for the Web with PHP</p> <p>SG - Session 21 XP - Session 21 TG - Session 21</p>
15	PHP – TL15	<p>All the topics as listed below from Session 22 of <i>Programming for the Web with PHP</i> book should be covered in this session.</p> <p><u>Session 22 - Handling E-mail with PHP</u></p> <ul style="list-style-type: none"> ➤ Describe the process of sending an e-mail using PHP. Explain the process of attaching files 	<p>Programming for the Web with PHP</p> <p>SG - Session 22 XP - Session 22 TG - Session 22</p>

Session No.	Session Title	Session Details	Deliverables' Mapping
		with an e-mail using PHP.	
16	PHP – TL16	<p>All the topics as listed below from Session 24 of <i>Programming for the Web with PHP</i> book should be covered in this session.</p> <p><u>Session 24 - OOP Concepts</u></p> <ul style="list-style-type: none"> ➤ Explain the OOP concepts. ➤ Explain inheritance. ➤ Explain the use of classes. ➤ Describe the use of constructors. Explain the use of objects. 	<p>Programming for the Web with PHP</p> <p>SG - Session 24 XP - Session 24 TG - Session 24</p>
17	PHP – TL17	<p>All the topics as listed below from Session 26 of <i>Programming for the Web with PHP</i> book should be covered in this session.</p> <p><u>Session 26 - Generator Delegation and Throwable Interface</u></p> <ul style="list-style-type: none"> ➤ Explain generators and generator return expressions. ➤ Describe Generator Delegation. ➤ Explain exception handling and changes in exceptions in PHP 7 ➤ Explain the use of E_ERROR and E_RECOVERABLE_ERROR ➤ Explain the Throwable Interface 	<p>Programming for the Web with PHP</p> <p>SG - Session 26 XP - Session 26 TG - Session 26</p>
18	PHP – TL18	<p>All topics from Session 23 (Lab) and Session 25 (Lab) of <i>Programming for the Web with PHP</i> book should be covered in this session.</p>	<p>Programming for the Web with PHP</p> <p>SG - Session 23 & 25</p>

6. Library References

➤ Learning PHP by David Sklar
➤ PHP 7 Programming Cookbook by Doug Bierer
➤ Modular Programming with PHP 7 by Ajzele, Branko

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