

## PHP ++

### INTRODUCING PHP

- The origin of PHP
- PHP for Web Development & Web Applications
- PHP History
- Features of PHP
- How PHP works with the Web Server
- What is SERVER & how it works
- What is ZEND Engine
- Work of ZEND Engine

### INSTALLING AND CONFIGURING PHP

- PHP Installation
- MySQL Installation
- Apache Installation
- WAMP Installation
- Installing and Configuring PHP on Windows.
- How to design PHP applications using Dreamweaver
- How to design PHP applications using IDE

### HTML, CSS & JAVASCRIPT

- Introduction of HTML
- Creating basic HTML pages
- Form Designing with HTML
- Creating Tables in HTML
- Working on Frames
- Introduction of CSS
- Understanding CSS selectors & properties
- Creating Inline, Internal, External CSS
- Introduction of JAVASCRIPT
- Creating variables
- Working with Data types
- Working with Arrays
- Creating & using Functions
- Creating Clientside
- Validations

### PHP INPUT MECHANISM

- Form Interpretation
- Understanding GET, POST, REQUEST
- MasterChild
- page concept

### PHP OUTPUT MECHANISM

- Working with ECHO, PRINT(), PRINTF()
- MINI TASK ? Integrating HTML with PHP
- MINI TASK ? Integrating CSS with PHP
- MINI TASK ? Integrating JAVASCRIPT with PHP

### LANGUAGE BASICS

- Creating a simple PHP script
- Naming Variables
- Assigning and Displaying Variable Values
- Creating variables
- Displaying variable values
- Writing Your First Script That Uses Variables
- Using Variable Variables
- Removing Variables
- Understanding Data Types
- Assigning data types
- Type casting
- Type Juggling
- Introduction of PHP Keywords
- Comments

## **OPERATORS & EXPRESSIONS**

- Arithmetic, Assignment, Comparison, Logical Operators
- Concatenation, Bitwise, Error Suppression, Increment & Decrement operators

## **WORKING WITH FLOW CONTROL THROUGH CONTROL STATEMENT**

- Ternary operator
- Ifelse
- Ifelse
- ladder
- Ifelseifelse
- Switch

## **WORKING WITH FLOW CONTROL THROUGH LOOP STATEMENT**

- For
- While
- Dowhile
- Foreach
- Nesting of Loops

## **ARRAY WITH PHP**

- What is an Array?
- Creating and Working with Arrays
- Creating arrays
- Viewing arrays
- Modifying arrays
- Removing values from arrays
- Sorting Arrays
- Walking through an Array
- Traversing an array manually
- Using foreach to walk through an array
- Finding Array Size
- Converting Arrays into Strings (And Vice Versa)
- Converting Variables into Arrays (And Vice Versa)
- Splitting and Merging Arrays
- Exchanging keys and values
- Multidimensional Arrays
- Creating multidimensional arrays
- Viewing multidimensional arrays
- Using multidimensional arrays in statements
- Walking through a multidimensional array
- Builtin
- PHP Arrays

## **USING STRINGS IN PHP**

- Introduction to string.
- Creating and Working with String
- Creating string
- Viewing string
- Modifying string
- Introduction of String Function
- Working with string function

## **PHP FUNCTIONS**

- Defining functions
- Using variables in functions
- Passing values to a function
- Nesting of Functions
- Anonymous Functions
- Recursion
- Returning a value from a function
- Using builtin
- functions
- Defining User functions
- Passing parameter(Call By Value & Call By Reference) & return value
- Trends of PHP Functions(Missing Parameter, Formal parameter declaration)
- Importing content of one page into another(include & require)

#### **FILE HANDLING IN PHP**

- File Streams(Input, Output, Temp)
- Creating and deleting a file.
- Reading and writing test files.
- Checking for existence of file.
- Determining file size.
- Opening a file for writing, reading or appending.
- Writing data to the file.
- Reading characters.
- Checking existence of a file
- Sending the pointer to a particular location in a file
- Finding the current location of a pointer
- Check whether file contents end or not
- Locate the pointer at the beginning of file
- File locking
- MINI TASK ? Creating PDF with PHP

#### **CREATING WEB FEATURES**

- Redirecting users to other pages
- Creating an Email
- Sending an Email
- Configuring Email
- File Uploading and File Downloading
- MINI TASK ? Creating a Mail Interface with PHP

#### **OBJECT ORIENTED PROGRAMMING**

- Introducing ObjectOriented Programming
- Objects and classes
- Properties & Methods
- Objectoriented concepts PHP 5
- Encapsulation
- Inheritance(Single, Multilevel, Multiple, Hybrid, Hierarchical)
- Developing an ObjectOriented Program
- Selecting properties and methods for each object
- Defining a Class
- Using \$this
- Adding methods
- Destroying Objects
- Constructor & Destructor
- Final Class
- Using Access Specifiers (public, private & protected)
- Polymorphism(Over Loading & Over Riding)
- Abstraction
- Abstract Class
- Interface
- Traits
- Magic Methods
- MINI TASK ? Creating a OOPs based simple PHP Application

#### **ERROR & EXCEPTION HANDLING**

- Introduction to Errors
- Types of Errors
- Introduction to Exception handling
- Using Try/catch/throw
- Checked & Unchecked Exception
- Creating Custom exception
- MINI TASK ? Creating an Exception Handling Panel

### **CREATING SECURITY USING PHP**

- Introduction to ENCRYPTION
- Encrypting Functions
- Key Encryption
- Creating Header Authentication
- HTTP Authentication
- MINI TASK ? Create a secure web page

### **REGULAR EXPRESSION**

- Introduction to Regular Expression
- preg & ereg functions
- Email validation
- String pattern matching
- PCRE expression
- POSIX expression
- MINI TASK ? Creating searching or validation programs

### **DATABASE MANAGEMENT (MySQL)**

- Introduction to DBMS
- DBMS Vs RDBMS
- Keys
- Normalization
- DML , DDL, DCL
- Introduction to MySQL.
- Database Engines in MySQL.
- Performing dynamic functions using MySQL
- Using MySQL on the Web
- Adding tables to a database
- Creating a table
- Connecting to a database server
- Using Database Queries for accessing & manipulating data from database
- Opening Database Connection/closing database connection
- Select/Insert/delete & Update Database from forms
- Database Functions
- Joins
- Constraints
- Triggers
- SQL Injections
- Prevention of SQL Injections
- MINI TASK ? Creating Registration form
- MINI TASK ? Creating Login & Profile page
- MINI TASK ? Creating Update & Delete page
- MINI TASK ? Creating SQL Injection prevention PHP script

### **STATE MANAGEMENT**

- Introduction to Query Strings
- Working with Query Strings
- Receiving data from Query Strings
- MINI TASK ? Fetching Data from Database by Query String
- Introduction to COOKIES
- Creating Cookies
- Using Cookies
- 12/1/2015 CETPA Infotech Pvt. Ltd.
- <http://www.cetpainfotech.com/syllabus/PHP%206Months>
- 8/11
- MINI TASK ? Creating Cookie based authentication module
- Introduction to Session
- Starting a Session.
- Working with Session variables.
- Destroying session
- Passing Session Ids
- MINI TASK ? Creating a session based Login form

## **ADVANCE PHP**

### **Ajax**

- Introduction to AJAX
- Understanding XMLHttpRequest object
- Working with Ajax functions
- Integrating AJAX with HTML
- Integrating AJAX with PHP
- MINI TASK ? Fetching data from database using Ajax

### **PAYMENT GATEWAY INTEGRATION**

- Introduction to Payment Gateways
- How to integrate Payment Gateway with PHP application
- MINI TASK ? Integrating Dummy Payment Gateway

### **WEB SERVICES IN PHP**

- Introduction to Web Services
- Introduction to XML
- Creating XML pages
- Introduction to JSON
- Creating JSON data
- Creating SOAP based Web Service
- Consuming SOAP based Web Service
- Creating REST based Web Service
- Consuming REST based Web Service
- MINI TASK ? Database manipulation using Web Services

### **GRAPHICS IN PHP**

- Introduction to Graphics
- Understanding GD Library
- Creating Graphics
- Working on Image Manipulation Functions
- Inserting Text inside Images
- Crop, Resize, Blur, Border, Copy Images
- MINI TASK ? Creating Image manipulation program using GD Library

### **CODE IGNITER (Frame work)**

- Introduction to Code Igniter
- Introduction to MVC
- Installing Code Igniter
- Creating Controller, View, Models
- URL Routing, Hooks
- Redirecting control
- Configuring with Database
- Creating Html forms
- Using JavaScript with Code Igniter
- Creating Validations with Code Igniter
- Integrating Ajax with Code Igniter
- Integrating HTML template in Code Igniter
- CRUD implementation in Code Igniter
- Working with Session
- Developing Plugin with Code Igniter

### **CAKE PHP (Frame work)**

- Introduction to CakePHP
- Introduction to MVC
- Installing CakePHP
- Creating Controller, View, Models
- URL Routing, Scaffolding
- Redirecting control
- Configuring with Database
- Creating Html forms
- Using JavaScript with CakePHP
- Integrating Ajax with CakePHP
- Creating Validation with CakePHP
- Integrating HTML template in CakePHP
- CRUD implementation in CakePHP
- Working with Session

- Developing Plugin with CakePHP

#### **JOOMLA (CMS)**

- Joomla installation
- Working with Article Manager, Category Manager, Menu Manager
- Working with Template Manager , User Manager, Module Manager
- Working with the Extension Manager Media Manager, Global Configuration
- Working with inbuilt Components? Customization inbuilt Components and Modules
- Using External plugin in Joomla website
- Converting HTML template in Joomla theme
- Creating user defined modules
- Creating user defined components

#### **WORDPRESS (CMS)**

- Introduction to Wordpress
- Wordpress installation
- Working with post, media, pages, comments
- Working with appearance ,user, tools, setting
- Working with plugin in Wordpress website
- Using external plugin in Wordpress website
- Working with widgets in Wordpress
- Converting Html template to Wordpress theme
- CRUD operation using database in Wordpress
- Creating user defined plugins in Wordpress
- Creating user defined widgets in Wordpress

#### **DRUPAL (CMS)**

- Introduction to Drupal
- Drupal installation
- Working with content, structure, Appearance, people
- Working with module , configuration, report
- Creating user define modules in Drupal website
- Working with the theme in Drupal website
- Converting html theme in to Drupal website theme
- CRUD operation based user module
- Creating administrator module in Drupal website