

**CETPA INFOTECH PVT. LTD.**  
**CURRICULUM OF PHP**

**CORE 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 Client-side Validations

➤ **PHP INPUT MECHANISM**

- Form Interpretation
- Understanding GET, POST, REQUEST
- Master-Child page concept

❖ **PHP INPUT MACHANISM**

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

❖ **BASICS LANGUAGE**

- 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
- If-else
- If-else ladder
- If-elseif-else
- Switch

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

- For
- While Do-while
- Foreach
- Nesting of Loops
  
- Using Access Specifiers

❖ **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
- Built-in 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 built-in 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 & validation programs)

#### ❖ 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 Object-Oriented Programming
- Objects and classes
- Properties & Methods
- Object-oriented concepts PHP 5 Encapsulation
- Inheritance(Single, Multilevel, Multiple, Hybrid, Hierarchical)
- Developing an Object-Oriented Program
- Selecting properties and methods for each object Defining a Class
- Using \$this
- Adding methods
- Destroying Objects
- Constructor & Destructor Final Class

- (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
- 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

- 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

#### ❖ PAYMENT GATEWAY INTEGRATION

- Introduction to Payment Gateways
- How to integrate Payment Gateway with PHP application

#### ❖ (WORD PRESS (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 usermodule
- Creating administrator module in Drupal website

❖ **JOOMLA (CMS)**

- Introduction to JOOMLA,
- Joomla installation
- Working with Article Manager, Category Manager, Menu Manager
- Working with Template Manage
- User Manager, Module Manage
- 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

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