PHP Full Stack Syllabus

HTML

- Introduction
- Basic Formatting Tags
- Grouping Using Div Span
- Lists
- Images
- Hyperlink
- Table
- frame
- Form
- Headers

Css2

- Introduction
- Syntax
- Selectors
- Color Background
- Text Fonts
- Lists Tables
- Box Model
- Display Positioning
- Floats

JavaScript

- Introduction
- JS in HTML
- HTML DOM (Document Object Model)
- JS Console
- JS Debugging
- Arrays
- JS Objects
- JS Functions
- JS dialog boxes

- HTML Attributes etc.

Advance JavaScript

- Variable Hoisting in JavaScript
- JS let & const
- Model
- Model
- Arrow function
- Find, Filter & Map function
- JS Object Constructors
- String & Template literals
- Event in JS
- Class
- Map & Set

Bootstrap

Introduction of Responsive Bootstrap

- Introducing Bootstrap
- Creative a Simple Page
- Enhancing the Page

Responsive Layouts with the Bootstrap Grid

- Introducing of Grid
- How the Bootstrap Grid Works
- Layout in Bootstrap
- Styling Content

Using Bootstrap Components
- Building a Navbar
- Adding Buttons and Button Groups
- Horizontal Nav and Dropdown Buttons
- Displaying Content with Cards
- Building the List Group

Building Forms with Bootstrap
- Form Groups and Form Controls
- Custom Form Controls for Cross-Browser Consistency
- Structured Form Layouts with the Grid

- Adding Validation Styles

Introduction to PHP

- What is PHP?
- Features and Benefits of PHP
- Setting Up PHP Development Environment (XAMPP, WAMP, MAMP, LAMP)
- Running Your First PHP Script
- PHP Syntax and Basic Structure

PHP Basics

- Variables and Data Types
- Constants in PHP
- Operators in PHP (Arithmetic, Logical, Comparison, Assignment)
- PHP Output (echo, print, var_dump)
- Comments in PHP

Control Structures in PHP

- Conditional Statements (if, if-else, switch-case)
- Loops (for, while, do-while, foreach)
- Break and Continue Statements

Functions in PHP

- Defining and Calling Functions
- Function Arguments and Return Values
- Default and Optional Parameters
- Variable Scope in PHP (global, local, static)
- Anonymous and Callback Functions

Arrays in PHP

- Indexed Arrays
- Associative Arrays
- Multidimensional Arrays
- Array Functions (array_push(), array_pop(), array_merge(), array_filter())

Strings and String Functions in PHP

- String Concatenation
- String Manipulation Functions (strlen(), strtoupper(), strtolower(), str_replace())
- Handling Special Characters

Superglobals in PHP

- $_GET and $_POST
- $_REQUEST
- $_SESSION and $_COOKIE
- $_FILES for File Uploads
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Forms Handling in PHP

- Handling Form Data with $_POST and $_GET
- Form Validation and Sanitization
- Preventing XSS and SQL Injection
- File Upload Handling

Sessions and Cookies in PHP

- What are Sessions?
- Starting a Session (session_start())
- Storing and Destroying Session Data
- Using Cookies for User Preferences

File Handling in PHP

- Reading and Writing Files (fopen(), fwrite(), fread(), fclose())

- File Uploading
- File Deletion (unlink())
- Working with Directories

Object-Oriented Programming (OOP) in PHP

- Classes and Objects
- Constructors and Destructors
- Access Modifiers (public, private, protected)
- Inheritance in PHP
- Polymorphism (Method Overriding)
- Interfaces and Abstract Classes
  Traits in PHP

Working with Databases (MySQL & PDO)

- Introduction to MySQL Database
- Connecting PHP with MySQL using mysqli and PDO
- CRUD Operations (Create, Read, Update, Delete)
- Prepared Statements for Secure Database Queries
- Error Handling in Database Operations

Security in PHP

- SQL Injection Prevention
- Cross-Site Scripting (XSS) Protection
- Hashing Passwords with password_hash()
- HTTPS and Secure Sessions
- Using Environment Variables for Security

Working with APIs in PHP

- RESTful API Basics
- Consuming APIs with cURL and file_get_contents()
- Creating REST APIs using PHP and MySQL
- Handling JSON Data (json_encode(), json_decode())

Error Handling and Debugging in PHP

- Types of Errors in PHP (Syntax, Runtime, Logical)
- Using try-catch for Exception Handling
- Logging Errors (error_log())
- Debugging with var_dump(), print_r(), and error_reporting()

Email Handling in PHP

- Sending Emails with mail() Function
- Sending Emails Using PHPMailer
- Email Validation

PHP and AJAX

- Introduction to AJAX
- Sending AJAX Requests with JavaScript & PHP
- Fetching Data from PHP Using AJAX
- Updating UI Dynamically

PHP Frameworks (Optional but Recommended)

- Introduction to PHP Frameworks
- Laravel - Overview, MVC Architecture, Routing, Middleware
- CodeIgniter - Lightweight MVC Framework
- Symfony - High-performance PHP Framework

Deployment and Hosting PHP Applications

- Deploying PHP Applications on Shared Hosting
- Setting Up PHP on Cloud Servers (AWS, DigitalOcean)
- Configuring Apache/Nginx for PHP
- Using Composer for Dependency Management

Advanced PHP Concepts

- Working with Websockets in PHP
- Multithreading with PHP
- Writing PHP CLI Scripts
- PHP and Microservices

Project

- Core Project
- Live Project

Certificate