About PHP

Introduction

PHP is a server scripting language, and a powerful tool for making dynamic and interactive webpages.It is also a general purpose language that you can use to make lots of projects, including graphical user interfaces.

Laravel is a free and open-source PHP web framework, created by Taylor Otwell and intended for the development of web applications following the model–view–controller architectural pattern and based on Symfony.

Why PHP
- Widely used
- Free
- Efficient to competitors such as Miccrosoft's ASP.

Course details

Course duration: 2 months(120 hours)

Topics covered in PHP Course
- PHP basics
- PHP form
- PHP Functions
- Database

PHP Basics

- Introduction to web Technology
- Introduction to HTML5 and CSS
- PHP introduction
- PHP syntax
- PHP Data Types
- PHP Variables ,Constants and Array

- PHP Operators and Control Statements
  - if else statement
  - else if statement
  - switch case
  - Loops
  - while
  - do while
  - for
  - foreach

PHP Form

- HTML Form
- Form elements
- HTTP verbs and methods
- File Upload
- Form handling with file upload
- Super global Variables
  - $_SERVER,
  - $_REQUEST,
  - $_POST,
  - $_GET,
  - $_FILES,
  - $_SESSION,
  - $_COOKIE

PHP Functions

- Introduction
- Types:
  - Pre-defined /In-built
  - User defined/ Custom
- Function parameters (With or without and conditional parameters)
- Arguments by value and reference
- Returning values from a function
- Working with Some useful functions
  - Date and time
  - include and require

Templating using include and require

Database

- Introduction To Database
- What is RDBMS technology?
- Understanding Database, Tables, Fields
- Introduction to SQL (Structured Query Language)
- Using Database Management tools (phpMyAdmin/ MySQL Workbench etc.) to handle database
- Creating and managing database
- Selecting Database
- Creating Tables
- Auto Increment and Indexing a columns in tables
- Inserting Data into tables in different ways via query
- Updating Data and Table Structure
- Selecting from table in different ways
- Deleting tables and drop database

PHP Laravel Syllabus:

1) Introduction to Laravel PHP Frame workWhat is Laravel, Advantages of Laravel, Composer, Artisan. Features of Laravel. Composer installation. Download composer from getcomposer.com/download. Create a new project . Application structure: The application structure in Laravel is basically the structure of folders, sub-folders and files included in a project.configuration: Environment ConfigurationEnvironment variables are those which provide a list of web services to your web application.Run the project.Run first project.

2) Routing in Laravel PHP Frame work

Routing: all requests are mapped with the help of routes. Basic routing routes the request to the associated controllers. Basic Routing: All the application routes are registered , Route parameters: need to capture the parameters passed with the URL, Named Routes: Named routes allow a convenient way of creating routes. Middleware acts as a bridge between a request and a response. It is a type of filtering mechanism.

3) Artisan Console in Laravel PHP Frame work

Laravel framework provides three primary tools for interaction through command-line namely: Artisan, Ticker and REPL. Introduction to Artisan, example. Writing Commands. Understanding Release Process, Dump server, Action URL

4) Laravel PHP Frame work Sample program

Create a view in resources directory, Change the view in web.php in routes.Run project. Create a view page in resources directory, css file copy to public directory .Define a new action in controller .Add a new route.Run it. Create a view page in resources directory, css

file copy to public directory .Create a new controller in app directory ,define a new action in controller .Add a new route.Run it.

5) Middleware & Namespace Middleware in Laravel PHP Frame work

acts as a bridge between a request and a response. It is a type of filtering mechanism. Namespaces can be defined as a class of elements in which each element has a unique name to that associated class. Declaration of namespace. Controller. It acts as a directing traffic between Views and Models .Creating a controller:syntax and example

6) Restful Resource Controllers in Laravel PHP Frame work

Laravel makes this job easy for us. Implicit Controllers allow you to define a single route to handle every action in the controller. Constructor Injection: example Method injection: dependencies on your controller's action methods.

7) Request in Laravel PHP Frame work

Retrieving the Request URI The "path" method is used to retrieve the requested URI. The is method is used to retrieve the requested URI which matches the particular pattern specified in the argument of the method ,example. Retrieving input: The input values can be easily retrieved in Laravel. No matter what method was used "get" or "post". Using the input method, Using the properties of Request instance,example

8) Response in Laravel PHP Frame work

A web application responds to a user's request in many ways depending on many parameters. Basic Response , Attaching Headers, Attaching Cookies, JSON response,

9) Views in Laravel PHP Frame work

In MVC framework, the letter "V" stands for Views. It separates the application logic and the presentation logic. Views are stored in resources/views directory. example. Passing Data to Views, example, Sharing Data with all Views, example

10) Blade templates in Laravel PHP Frame work

Laravel 5.1 introduces the concept of using Blade, a templating engine to design a unique layout. Steps for Creating a Blade Template Layout. Redirections: Named route is used to give specific name to a route, Redirecting to Named Routes: example, Redirecting to Controller Actions: example

11) CSRF Protection in Laravel PHP Frame work

CSRF attacks are the unauthorized activities which the authenticated users of the system perform. Implementation: CSRF is implemented within HTML forms declared inside the web applications. Form without CSRF token, Form with CSRF token

12) Tokens in Laravel PHP Frame work

Tokens-The smallest individual unit in a program. Keyword are reserved words, Identifiers: used as the general technology for the names given to different parts of the program, Literals: Literals are data items that are fixed data values, Punctuator: how statements are grouped together in the code, Operators: Operator is a symbol that tells the computer to perform certain mathematical or logical manipulation.

13) Operators in Laravel PHP Frame work

Operator is a symbol that tells the computer to perform certain mathematical or logical manipulation. Arithmetic operators perform arithmetic calculations. Assignment operators used to assign values Relational operators used to compare values Increment and Decrement operators Logical operators used to combine operations. Type Conversions: cast one type to another

14) Laravel PHP Frame work Control flow statements 1

Decision making structures require that the programmer specify one or more conditions to be evaluated or tested by the program Selective Control Structure The If Statement: If the Boolean expression evaluates to true, then the block of code inside the if statement will be executed. The If….else Statement: An if statement can be followed by an optional else statement, which executes when the Boolean expression is false The If….else if Statement :An if statement can be followed by an optional else if...else statement Nested if :use one if or else if statement inside another if or else if statement

15) Laravel PHP Frame work Control flow statements 2

Selective Control Structure Ternary Operator: used to replace if...else statements The Switch Case Statement: A switch statement allows a variable to be tested for equality against a list of values

16) Laravel PHP Frame work Control flow statements 3

Iterative Control Structures: execute a statement or group of statements multiple times While: executes a target statement as long as a given condition is true Do … While: A do...while loop is similar to a while loop, except that a do...while loop is guaranteed to execute at least one time

17) Laravel PHP Frame work Control flow statements 4

Iterative Control Structures For loop: efficiently write a loop that needs to execute a specific number of times. Nested Loop: to use one loop inside another loop

18) Arrays in Laravel PHP Frame work

Creating arrays, Access array elements using index/key. Two type arrays –Single dimensional, Multidimensional arrays. Foreach loop

19) OOP in Laravel PHP Frame work

What is Object oriented programming, Class, Object, and Encapsulation. Polymorphism, Inheritance, Interface, Abstract class.

20) Working with database

The query to the database can be fired using raw SQL, the fluent query builder, and the Eloquent ORM. To understand the all CRUD (Create, Read, Update, Delete) operations with Laravel. Connecting to Database Errors and logging: A project while underway, is borne to have a few errors. Errors and exception handling is already configured for you when you start a new Laravel project, Logging is an important mechanism by which system can log errors that are generated.

21) Forms in Laravel PHP Frame work

Laravel provides various in built tags to handle HTML forms easily and securely. All the major elements of HTML are generated using Laravel, example Session: Sessions are used to store information about the user across the requests. Accessing Session Data, Storing Session Data , Deleting Session Data, example.

22) Validation

Validation is the most important aspect while designing an application. It validates the incoming data. Validation Rules in Laravel, example

23) File uploading Uploading in Laravel PHP Frame work

Files in Laravel is very easy. All we need to do is to create a view file where a user can select a file to be uploaded and a controller where uploaded files will be processed. example

24) Sending Email in Laravel PHP Frame work

Laravel uses free feature-rich library SwiftMailer to send emails. Using the library function,syntax,example,env configuration

25) Error handling in Laravel PHP Frame work

They track errors and exceptions, and log them to analyze the performance. Important Points, Error log: Logging the errors in a web application helps to track them and in planning a strategy for removing them. Severity Levels: Laravel uses monolog PHP logging library, there are various parameters used for analyzing severity levels.

26) Event Handling in Laravel PHP Frame work

Events provide a simple observer implementation which allows a user to subscribe and listen to various events triggered in the web application. Listeners: Listeners handle all the activities mentioned in an event that is being registered.

27) Authentication in Laravel PHP Frame work

Authentication is the process of identifying the user credentials. Login and registration Manually Authenticating Users. Authorization: Difference between Authentication and Authorization. Authorization Mechanism in Laravel. Laravel provides a simple mechanism for authorization that contains two primary ways, namely Gates and Policies.

28) Encryption in Laravel PHP Frame work

Encryption is a process of converting a plain text to a message using some algorithms such that any third user cannot read the information. Configuration, Encryption Process: Encryption of a value can be done by using the encrypt helper in the controllers of Laravel class, Decryption Process: Decryption of the values is done with the decrypt helper.

29) Hashing in Laravel PHP Frame work

Hashing: Hashing is the process of transforming a string of characters into a shorter fixed value or a key that represents the original string. Verification of Password against Hash: verify the password against hash to check the string which was used for conversion.

30) Pagination Customization in Laravel PHP Frame work

Laravel includes a feature of pagination which helps a user or a developer to include a pagination feature

Job roles after learning PHP
- PHP laravel developer
- Backend developer
- Laravel full stack developer
- Command line scripting
- Server side scripting

Famous sites using PHP

- Facebook
- Wikipedia
- Wordpress
- Slack
- Mailchimp