

## ABOUT THE TRAINING

The WEB DEVELOPMENT TRAINING is organised by the web programming team at Alabian Solutions Limited so it is a practical oriented training class. There will be a tutor lead section, class programming session and a project development section. Every student will be expected to complete a web project (a Computer Based Test or a Responsive Personal Resume Website or both) using the technology learnt during the training. All graduates will benefit from free consultation service from Alabian Solutions Ltd.

This training is targeted at:

- Beginners with zero skill set in programming
- People who already build website using CMS (WordPress, Joomla etc) but want to learn how to build it from scratch
- Web designer that want to extend their skill and become web developer creating web app and software
- People with app ideas but looking for how to implement them or people that want to change careers

This training is targeted at:

- Beginners with zero skill set in programming
- Web developer that want to start building cross platform app for Android and iOS
- People already building Android or iOS apps but want to build cross platform apps
- People with app ideas but looking for how to implement them or people that want to change careers

# SOFTWARE DEVELOPMENT TRAINING WITH PHP



## ALABIAN SOLUTIONS LTD



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## ABOUT GIT

Git is a distributed version control system used for tracking changes made to files and also for coordinating work done on those files among multiple people. It is primarily used for source-code management in software development. Participants will learn how to use these tools for working in team

## WHY GIT

Git is a powerful version control system that allows you to keep track of changes made to your codebase over time. It helps you to collaborate with others more efficiently by tracking changes, merging code changes, and resolving conflicts.

## COURSE OUTLINE

### Introduction to Version Control

- ❖ What is Version Control
- ❖ Why is Version Control Important
- ❖ Types of Version Control

### Introduction to Git

- ❖ What is Git
- ❖ Installing Git
- ❖ Configuring Git
- ❖ Git workflow

### Git Basics

- ❖ Creating a Git Repository
- ❖ Cloning a Git Repository
- ❖ Basic Git Commands (add, commit, push, pull, status)

### Git Branching

- ❖ Understanding Branching
- ❖ Creating and Deleting Branches
- ❖ Merging Branches
- ❖ Resolving Merge Conflicts

### Git Remote

- ❖ Adding Remote Repositories
- ❖ Pushing and Pulling Changes
- ❖ Fetching and Pulling Changes

### Git Collaboration

- ❖ Collaborating with Others
- ❖ gitignore

# COURSE OUTLINE

## Overview of HTML

- ❖ HTML Tags
- ❖ HTML Elements
- ❖ HTML Attributes
- ❖ HTML Comments
- ❖ Paragraphs
- ❖ Text Formatting
- ❖ Quotation
- ❖ Links
- ❖ Images
- ❖ Tables
- ❖ Lists
- ❖ Block and Inline Elements
- ❖ HTML Style Guide
- ❖ Iframes
- ❖ File Paths
- ❖ Audio/Video
- ❖ Viewport meta tag for Responsive web Design

## ABOUT HTML

Participants will learn the basics of HTML5, the training will start with instruction on how set up their IDE (Integrated Development Environment) and upload files to a live web server with an ftp client. They will go over HTML5 basics like valid document structure, and the usefulness of writing good HTML5 semantic tags. Each participant is expected to produce a webpage using the tags learnt in this module.

## WHY HTML

HTML is the foundation of web development, and understanding it is essential for anyone who wants to build web applications. Knowing HTML will help you understand how web pages are structured, how they are displayed in a web browser, and how they interact with other web technologies.?

## ABOUT CSS

We will teach participants from the very basics of CSS3 to some fairly advanced concepts like floating, CSS rule conflict resolution, flexbox etc. We will also be taught the 'box model', background property, CSS3 font and even browser developers' tool. This module will be culminated by converting the webpages created in HTML5 modules into a beautiful website.

## WHY CSS

Knowledge of CSS is a valuable skill in the web development industry, and it can help you advance your career. Many job postings for web developers require knowledge of CSS, and employers are always looking for candidates who can create visually appealing and responsive web pages.

## COURSE OUTLINE

### INTRODUCTION TO CSS

- ❖ Benefits of CSS
- ❖ CSS Syntax
- ❖ How to add CSS to HTML
- ❖ Code commenting in CSS
- ❖ CSS Selectors (ID, Class, Tags, Attributes)
- ❖ CSS Selectors
- ❖ Pseudo-classes
- ❖ Pseudo Elements
- ❖ Applying Colors
- ❖ Background Styling
- ❖ CSS-Text Fonts
- ❖ Height and Width
- ❖ Position
- ❖ Float
- ❖ Flex
- ❖ CSS Borders
- ❖ Box model
- ❖ Margins and Padding
- ❖ Outline in CSS
- ❖ Text Formatting
- ❖ Fonts styling
- ❖ Using Icons
- ❖ Lists
- ❖ CSS Tables
- ❖ DropDowns



# B

## COURSE OUTLINE

### Layout

- ❖ Breakpoints
- ❖ Containers
- ❖ Grid
- ❖ Columns
- ❖ Gutters
- ❖ Utilities
- ❖ Z-index

### Forms

- ❖ Form control
- ❖ Select
- ❖ Checks & radios
- ❖ Input group
- ❖ Input group
- ❖ Layout

### Components

- ❖ Accordion
- ❖ Alerts
- ❖ Badge
- ❖ Buttons
- ❖ Button group
- ❖ Card
- ❖ Carousel
- ❖ Close button
- ❖ Collapse
- ❖ List group
- ❖ Modal
- ❖ Navbar

### Content

- ❖ Images
- ❖ Tables
- ❖ Grid
- ❖ Figures

## ABOUT BOOTSTRAP

In this training, we are going to show participant how to build a mobile friendly Web Application with minimal effort using the latest version of Bootstrap. It will amaze you to see how we can simplify the task of Front-end development using Bootstrap.

## WHY BOOTSTRAP

Bootstrap provides a set of pre-built components and styles that can save a significant amount of time when building web pages. By using Bootstrap, you can focus on customizing and fine-tuning your web pages rather than building everything from scratch.

## COURSE OUTLINE

### Introduction to JavaScript Data Types JavaScript Operators

- ❖ Overview of JavaScript
- ❖ Developer console
- ❖ Adding JavaScript into HTML
- ❖ JavaScript Statements
- ❖ Basic Syntax
- ❖ JavaScript Comments
- ❖ Interaction: alert, prompt, confirm
- ❖ Numbers
- ❖ Strings
- ❖ Boolean
- ❖ Array
- ❖ Objects
- ❖ Null
- ❖ Undefined
- ❖ Arithmetic Operators
- ❖ Assignment operators
- ❖ Comparison Operators
- ❖ JavaScript Unary Operators
- ❖ Ternary Operator
- ❖ Instanceof Operator

### Variables in JavaScript

- ❖ The use of variables?
- ❖ JavaScript Let
- ❖ JavaScript Const
- ❖ JavaScript Reserved Words

### Conditionals

- ❖ If-else
- ❖ Switch Case in JavaScript

## ABOUT JAVASCRIPT

For some of the participants JavaScript will be the first programming language they will be learning. Our instructors will simplify the act of programming. JavaScript will add interactivity to web pages. The module will cover just about everything - from common language constructs and data types to objects, functions, arrays, closures, Document Object Model (DOM) and Browser Object Model (BOM) API. Apart from just adding interactivity to a webpage we teach participant how to use JavaScript to create Web Applications and prepare them for other JavaScript Library they will learn in the training.

## WHY JAVASCRIPT

JavaScript is the backbone of front-end web development, and it is used to build user interfaces, control animations, and handle user input. By learning JavaScript, you can create visually appealing and responsive user interfaces that enhance the user experience.

## Javascript functions

- ❖ User-defined functions
- ❖ Anonymous Functions
- ❖ Functions as First-Class Citizens
- ❖ Callback Functions
- ❖ Inbuilt Functions
- ❖ Understanding variable scopes in JavaScript
- ❖ this in JavaScript

## Event handling

- ❖ Introduction to Events
- ❖ Page Load Events
- ❖ The onLoad Event
- ❖ The DOMContentLoaded Event
- ❖ Mouse Events
- ❖ Keyboard Events
- ❖ Scroll Events

## Document Object Model (DOM) Traversing elements

- ❖ Introduction to
- ❖ Document Object Model
- ❖ Select Element By Id
- ❖ Select Elements By Name
- ❖ Select Elements By Tag Name
- ❖ Select Elements By Class Names
- ❖ Select Element By CSS Selectors

## DOM Manipulating elements

- ❖ Create Elements
- ❖ Append Child Nodes
- ❖ InnerHTML

## Javascript Form

- ❖ Get the Parent Element
- ❖ Get Siblings of an Element
- ❖ Get Children of an Element
- ❖ How to Create a Form with the JavaScript?
- ❖ Form validation

## ES6

- ❖ Template Literals
- ❖ Object Literal Syntax
- ❖ Default Parameters
- ❖ Rest Parameters
- ❖ Spread Operator
- ❖ Destructuring

## Asynchronous JavaScript

- ❖ Promises
- ❖ Async/await

## Error Handling

- ❖ try...catch try...catch...finally
- ❖ Throw an Exception

## ABOUT REACT

React.js is a JavaScript library that is used to build interactive User Interfaces (UI) without hassles. It makes creating interactive UI's fun. Built and maintained by Facebook; React is spreading crazily across the industry, so fast that everybody is hiring a React developer.

## WHY REACT

Learning React is a valuable skill for anyone interested in front-end web development or software engineering. Its reusability, performance, flexibility, community support, job opportunities, and scalability make it a popular and essential tool for building modern web applications.

## COURSE OUTLINE

### Introduction to React

- ❖ What is React JS?
- ❖ Why use React instead of JavaScript
- ❖ Project Overview
- ❖ Roadmap

### React Setup

- ❖ Environment Setup
- ❖ Creating New Project
- ❖ Analyzing Project Structure

### React basics and components

- ❖ Components & Why React is Component-Based?
- ❖ JSX
- ❖ React Elements
- ❖ Building Component
- ❖ Styling Components
- ❖ Dynamic Data in components
- ❖ Passing data using Props

### State and event handling Contents conditional rendering

- ❖ Handling Events in React
- ❖ Why are States required?
- ❖ useState() Hook
- ❖ Form Handling
- ❖ Handling form Submission
- ❖ Rendering of List
- ❖ Importance of key attribute
- ❖ Conditional Statements & Output

### Handling side effects

- ❖ What are side effects & useEffect()
- ❖ useEffect() hook
- ❖ Cleanup function

## HTTP Calls using Axios/fetch

- ❖ Making first network Call with fetch
- ❖ Network call using Axios
- ❖ Handling data and states
- ❖ Async and Await
- ❖ Updating the data

## Redux

- ❖ Introduction to Redux
- ❖ Actions
- ❖ reducers
- ❖ The Redux store
- ❖ dispatch
- ❖ Connecting Redux to React

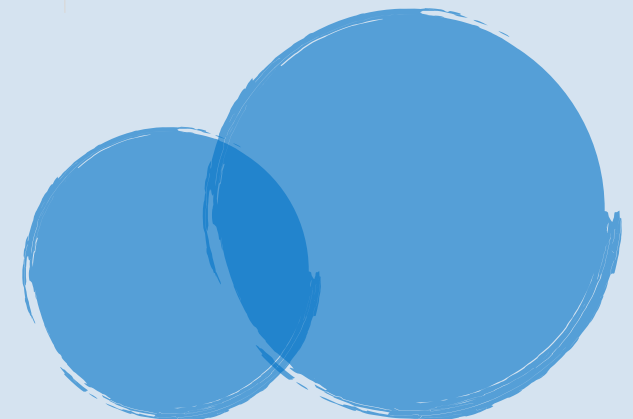
## Deployment

## Multipage Single page application with react-router

- ❖ Introduction to routing
- ❖ What is Routing, how it works & installation
- ❖ Basic Routing
- ❖ Link and NavLink
- ❖ Dynamic Routes
- ❖ Nested Routes
- ❖ Redirection and Not Found Page

## Global state management with context

- ❖ What is React Context?
- ❖ React context vs Redux
- ❖ When to use React Context?
- ❖ Application of react context





php

## COURSE OUTLINE

### PHP Introduction

- ❖ What is PHP
- ❖ What is a PHP File
- ❖ What Can PHP Do
- ❖ Why PHP

### PHP Fundamentals

- ❖ Install
- ❖ Comments
- ❖ Variables
- ❖ Echo/Print
- ❖ Data Types
- ❖ Strings
- ❖ Numbers
- ❖ Math
- ❖ Constants
- ❖ Operators
- ❖ if...Else...Elseif
- ❖ Switch
- ❖ Loops
- ❖ Functions
- ❖ Arrays
- ❖ Superglobals
- ❖ RegEx

## ABOUT PHP

PHP one of the most widely-used, open source scripting language used for build web app and making website dynamic. The scripts are executed on the server, it is free to download and ease to use. It is powerful enough to be at the core of WordPress and also deep enough to power a major part Facebook. The coolest about it is that is ease to learn for a beginner.

## WHY PHP

learning PHP can be beneficial for web developers who want to build dynamic and interactive web applications, as well as for developers who want to expand their skills and job prospects



## PHP Forms

- ❖ Form Handling
- ❖ Form Validation
- ❖ Form Required
- ❖ Form URL/E-mail
- ❖ Form Complete
- ❖ Functions
- ❖ Arrays

## PHP Advanced

- ❖ Date and Time
- ❖ Include
- ❖ File Handling
- ❖ File Open/Read
- ❖ File Create/Write
- ❖ File Upload
- ❖ Callback Function
- ❖ JSON
- ❖ Functions
- ❖ Arrays
- ❖ Superglobals
- ❖ RegEx

## PHP OOP

- ❖ What is OOP
- ❖ Classes/Objects
- ❖ Constructor
- ❖ Destructor
- ❖ Access Modifiers
- ❖ Inheritance
- ❖ Constants
- ❖ Abstract Classes
- ❖ Interfaces
- ❖ Traits
- ❖ Static Methods
- ❖ Static Properties
- ❖ Namespaces
- ❖ Iterables

## ABOUT MYSQL

MySQL is the most popular relational database management system used on the web and it connects seamlessly with PHP. Web App running PHP and MySQL is a popular norm on the web. It is an open source project presently maintained by Oracle Corporation. Can be used for both small and large app and it is also very fast, reliable, and easy to use

## WHY MYSQL

It is widely used in web development, data analysis, and other applications because it is cost-effective, can run on different operating systems, can handle large datasets and complex queries quickly, and has a wide range of tools and resources available to help developers get started quickly and troubleshoot any issues that may arise.

## COURSE OUTLINE

### MYSQL SQL

- ❖ MySQL SQL
- ❖ SELECT
- ❖ WHERE
- ❖ AND,OR,NOT
- ❖ ORDER BY
- ❖ INSERT INTO
- ❖ NULL Values
- ❖ DELETE
- ❖ LIMIT
- ❖ MIN and MAX
- ❖ COUNT,AVG,SUM
- ❖ LIKE
- ❖ Wildcards
- ❖ IN
- ❖ BETWEEN
- ❖ Aliases

### MYSQL JOIN

- ❖ JOIN
- ❖ INNER JOIN
- ❖ LEFT JOIN
- ❖ RIGHT JOIN
- ❖ CROSS JOIN
- ❖ SELF JOIN
- ❖ SELF JOIN

### MYSQL UNION

- ❖ GROUP BY
- ❖ HAVING
- ❖ ANY,ALL
- ❖ CASE
- ❖ NULL FUNCTIONS
- ❖ COMMENTS
- ❖ OPERATORS

### MYSQL DATABASE

- ❖ CREATE DATABASE
- ❖ DROP DATABASE
- ❖ CREATE TABLE
- ❖ DROP TABLE
- ❖ ALTER TABLE
- ❖ CONSTRAINTS
- ❖ NOT NULL
- ❖ UNIQUE
- ❖ PRIMARY KEY
- ❖ FOREIGN KEY
- ❖ CHECK
- ❖ DEFAULT
- ❖ CREATE INDEX
- ❖ AUTO INCREMENT
- ❖ DATES
- ❖ VIEWS

## COURSE OUTLINE

### LARAVEL

- ❖ Installation
- ❖ routing
- ❖ views/templates(blade template )
- ❖ layouts
- ❖ controller
- ❖ database
- ❖ migration
- ❖ model
- ❖ middleware
- ❖ controller
- ❖ validation using for request
- ❖ events and listeners
- ❖ logging
- ❖ authentication
- ❖ gates and policy
- ❖ tinkler
- ❖ tinkler
- ❖ mutators and accessors
- ❖ global scope
- ❖ route binding
- ❖ relationship
- ❖ soft delete
- ❖ email

## ABOUT LARAVEL

Laravel is an open-source web application development framework written in PHP. Laravel offers you rapid application development following the model–view–controller (MVC) architectural pattern. Laravel is a PHP framework which makes it easier for you to build professional web applications with following elegant coding standards and architectural pattern. This Laravel tutorial is a comprehensive guide on how to develop professional internet applications using Laravel framework.

## ABOUT LARAVEL

Laravel is a powerful and flexible framework that can help developers build robust and scalable web applications more efficiently. Its clean syntax, built-in ORM, CLI, templating engine, and active community support make it a popular choice for many developers.