Full Stack Developer

(MERN Specialization)

Become a full stack developer with expertise on MERN Stack.

Build strong web development fundamentals and problem solving skills.

Architect end-to-end web applications using emerging frameworks and create a portfolio of projects.

PHP Training
Syllabus

PHP Fundamental

- ### What is PHP?
  Write your first PHP Program

- ### How to install XAMPP on Windows
  Download & Install XAMPP on Windows

- ### PHP Data Types
  Data Types, Variables, Constant, Operators in PHP

- ### PHP Comments
  Include/Include_once, Require/Require_once

- ### PHP Array
  Associative, Multidimensional

Lets introduce some Logic!

- ### PHP Control Structures
  If else, Switch Case

- ### PHP Loop
  For, ForEach, While, Do While [Example]

- ### PHP Strings
  PHP String Functions Explained with Examples

- ### PHP Function
  How to Define? Built in | String | User Defined

- ### Registration form in PHP
  PHP Registration Form using GET, POST Methods

- ### PHP Session & Cookies
  Learn with Example

- ### PHP File() Function
  File_exists, Fopen, Fwrite, Fclose, Fgets, copy, unlink

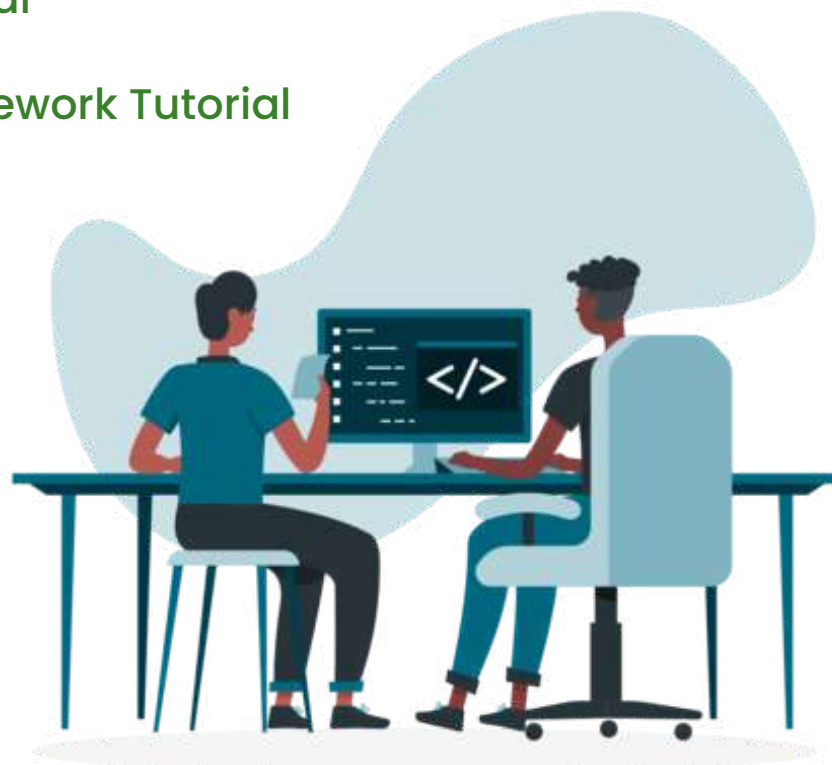- ### Exception & Error Handling Tutorial
  PHP Try Catch Example

Advance Stuff

- **PHP mail() Function**
  How to Send Email using PHP mail() Function

- **PHP MySQLi Functions**
  mysqli_query, mysqli_connect, mysqli_fetch_array

- **OOPS Concepts in PHP**
  PHP Object Oriented Programming concept Tutorial

- **PHP Date() & Time Function**
  How to Get Current Timestamp?

- **PHP Security Function**
  strip_tags, filter_var, Md5 and sha1

- **PHP XML Tutorial**
  Create, Parse, Read with Example

- **XML Tutorial for Beginners**
  Learn with Example

Your First PHP project!

- **PHP Projects**

- **PHP Ajax Tutorial**

- **PHP MVC Framework Tutorial**
  CodeIgniter Example

Developer Fundamentals

You will learn the essentials of Operating Systems, Networks and use some essential developer tools like Command–Line and Git. You'll learn to version your software with Git and push your code to GitHub

Introduction to OS & Networks

- Overview of OS Concepts
- Networks & Internet
- Network Layer
- Application Layer
- Web Servers

Working with Command Line

- Files & File System
- Managing System Packages
- Environment Variables
- Network & SSH

Collaborating with Git

- VCS & Git Repositories
- Staging Area & Commits
- Working with Branches
- Issues & Pull Requests

Static Website Design

This course helps you build a strong foundation on web technologies such as HTML, CSS. With this, you will create and publish simple and beautiful websites from scratch.

Software Development Fundamentals

- Importance of Frontend
- Fundamentals
  - Syntax
  - Debugging
  - Tweaking Code

HTML Basics

- Getting Started
- HTML Elements
- HTML Headings
- HTML Paragraphs
- HTML Button

- HTML Attributes
- HTML Images
- HTML Hyperlinks
- HTML Containers
- HTML Lists

CSS Basics

- CSS Rulesets
- CSS Properties
- CSS Colors
- CSS Units

- CSS Box Model
  - CSS Margins
  - CSS Paddings
  - CSS Borders

Bootstrap Components

- Carousel
- Embedding Videos

Course Project
Tourism Website

Build your Tourism Website by using HTML5, CSS3 and Bootstrap

Responsive Website Design

This course helps you build a strong foundation on web technologies such as HTML, CSS, Media Queries, and Flexbox. With this, you can create a responsive web application which runs smoothly across all the devices like desktop, tablet, and mobile.

Intermediate CSS

- Block vs inline elements
- CSS Selectors
    - Class Selector
    - Id Selector
    - Type Selector

- CSS Specificity
- CSS Inheritance
- CSS Cascading

Course Project Food Munch	Build a responsive Food Munch website using HTML5, CSS3 and Bootstrap Grid System.

Bootstrap

- Bootstrap Grid System
  - Container
  - Row
  - Column
- Bootstrap Utilities
  - Display Utilities
  - Flex Utilities
  - Sizing Utilities
  - Spacing Utilities

- Navbar
- Buttons
- Colors

Course Project
Ecommerce Website

Build a responsive Ecommerce website using HTML5, CSS3 and Bootstrap Grid System.

Dynamic Web Applications

In this course, you will understand the fundamental concepts in JavaScript and apply them to build dynamic and interactive web projects. You will also learn scope, hoisting and the fundamentals necessary to use modern frameworks like React, Angular and Vue. You'll master key functional methods like map, reduce and filter plus promises and ES6+ asynchronous JavaScript!

Introduction to JavaScript

- Data Types
- Variables
- Basic Operators
- Conditionals
- Loops
- Functions

- Arrays
- Objects
- Control Flow
- Comments
- Math Functions

DOM Manipulation

- The JavaScript Console
- Introduction to the DOM
- Defining the DOM
- Select and Manipulate
- Important Selector Methods

- Manipulating Style
- Manipulating Text and Content
- Manipulating Attributes
- Local Storage

Build a Todos Application using HTML5, CSS3 and JS.

Forms

- The form element
- The label element
- The input element
- The option element
- The optgroup element

- The button element
- The select element
- The textarea element
- Form validations and Input validations

Array Methods

- Adding & Removing Elements
  - push
  - unshift
  - splice
  - pop
  - shift
- Finding Elements
  - find
  - indexOf
- Concat

Events, Fetch & Callbacks

- How to add Event Listeners

- Callbacks

- Schedulers

    - setTimeout

    - clearTimeout

    - setInterval

    - clearInterval

- Hypertext Transfer Protocol (HTTP)

    - HTTP Requests using Fetch

    - HTTP Responses

    - Working with JSON data

Course Project
Wikipedia Search Application

Build a Wikipedia Search Application using HTML5, CSS3, JS.

Intermediate JavaScript

In this course, you will learn the concepts like Events, Scope, Hoisting, this, ES6 Classes, Error handling, More about Objects and how to handle Asynchronous JavaScript.

Rest parameters and spread syntax

- Destructuring Arrays

- Destructuring Objects

More Objects

- Constructor Functions
- Factory Functions

- Constructor Method
- new keyword

this

- this in methods
- window scope

- this in function declarations
- this in events

Prototypes & ES6 Classes

- Built-in Constructor Functions
- Constructor Property

- Inheritance
- this in classes

Asynchronous JS

- Async/Await
- Promises

Scope & Hoisting in JavaScript

Array Methods

- map
- filter
- reduce

String Manipulations

- trim & split Methods
- toUpperCase & toLowerCase Methods
- includes Method

Intermediate Responsive Web Design

This course will help you to develop a responsive layouts using CSS Flexbox and CSS Media Queries.

CSS Layouting

- CSS Flexbox

  - display

  - flex-direction

  - justify-content

  - align-items

  - flex-wrap

  - flex-flow

  - align-content

  - align-self

  - flex-grow

  - flex-shrink

  - order

- Sizing Elements

- Overflow

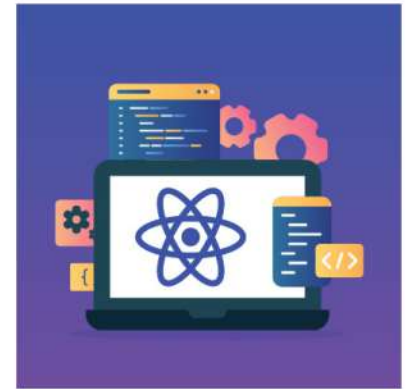- Box Sizing

  - Content Box

  - Border Box

CSS Media Queries

- Media Query

- Media Types

- Media Features

    - Width, min-width, max-width

    - Height, min-height, max-height

    - Orientation

- Combining Multiple Media Features in a single Media Query.

    - Logical Operators (and)

    - Logical Operators (not)

    - Logical Operators (,)

React JS - Getting started

In this course, you will learn how to build stateful web applications with the ReactJS library. When you finish this course, you will be comfortable creating an application in ReactJS, from scratch.

Introduction to React JS

- Why React?
- Stateful + Stateless components
- Hello World
- Introducing JSX
- Rendering Elements
- Components and Props
- State and Lifecycle

- Handling Events
- Conditional Rendering
- Lists and Keys
- Forms
- Composition vs Inheritance
- Thinking In React

CSS in JS

- Styled Components
- Emotion

Routing

- Query parameters
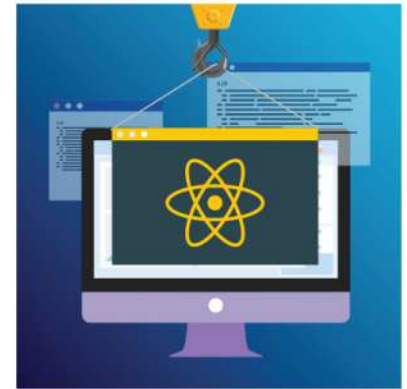- Path parameters

Authentication and Authorization

Course Project

Ecommerce Application

Build an Ecommerce application using React JS.

React JS Hooks

In this course, you will learn how to build stateful web applications with the React JS Hooks.

Introduction to Hooks

- Introducing Hooks

- useState

- useEffect

- useContext

- Hooks with Local Storage

- Hooks with React Router

- Data fetching using Hooks

- Writing Custom Hooks

Course Project
Ecommerce Application

Build an Ecommerce application using React JS Hooks.

Relational and Non Relational Databases

Learn about the incredibly prevalent databases today. Through this course, you'll develop strong fundamentals and be proficient in concepts related to Databases and DBMS. Most importantly, you'll also be able to perform powerful queries on databases using SQL.

Relational Databases

- Introduction
- SQL
- Aggregation, Relationships, Join
- Normalisation & Advanced SQL Querying
- ACID Properties

Non Relational Databases (MongoDB)

- Introduction to MongoDB
- CURD operations
- Querying Documents
- Aggregations
- Nested Documents

🗁 Course Project
Analyzing Data & Generating Business Insights

Generate insights from raw data by applying various complex aggregations and advanced queries.

Programming Foundations with Python

You will learn the fundamental concepts of programming and gain the confidence to code in Python. You will learn to write programs and use the right data structures to solve problems and build modular software with Object-Oriented Principles

Fundamentals of Programming

- Operators, Datatypes & Variables
- Strings & Numbers
- Conditional Statements
- Loops
- String Methods

Functions & Data Structures

- Functions & Recursion
- Lists and List Methods
- Tuples & Sequences
- Sets & Dictionaries

Object-Oriented Programming

- Classes & Objects in Python
- Attributes & Methods
- Inheritance & Polymorphism

Working with Python Standard Library

Slot Booking Applications Like Zomato / BookMyShow

In this project you will be developing a Slot Booking Application that provides a user an easy way of booking movie tickets online. Users can view various booking slots available and select the preferred date and time.

Tools and Technologies used

- HTML

- CSS

- JS

- AWS

  - S3

  - Route53

  - Cloudfront

- ExpressJS Server

  - CRUD API's

  - Express Middlewares

- Designing & Querying Relational Database

Build a social networking web app

In this project you will be developing a Social networking web app with popular features like post, comment.

Tools and Technologies used

- HTML
- CSS
- JS
- AWS
    - S3
    - Route53
    - Cloudfront

- ReactJS
- ExpressJS Server
    - CRUD API's
    - Express Middlewares
- Designing & Querying Relational Database

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