### **HTML OUTLINE:**

#### 1. Basic Structure:

- HTML Document Structure
- The <html>, <head>, and <body> Elements
- Document Type Declaration (<! DOCTYPE html>)

### 2. Text Formatting:

- Headings (<h1> to <h6>)
- Paragraphs ()
- Bold (<strong>) and Italic (<em>)
- Underline (<u>)
- Line Breaks (<br>)
- Horizontal Rules (<hr>>)

#### 3. Links and URLs:

- Anchor Tag (<a>)
- Linking to External URLs
- Linking to Internal Pages

### 4. Images:

- Image Tag (<img>)
- Image Source (src) and Alternative Text (alt)
- Image Dimensions (width and height)

#### 5. Lists:

- Ordered Lists (
- Unordered Lists ()
- List Items ()
- Definition Lists (<dl>, <dt>, <dd>)

#### 6. Tables:

- Table Structure (, , , , )
- Table Headings (<thead>, )
- Table Body ()
- Table Footer (<tfoot>)

#### 7. Forms:

- Form Tag (<form>)
- Form Input Elements (<input>, <textarea>, <select>)
- Form Submission (<button>, <input type="submit">)
- Form Validation and Attributes

#### 8. Semantic HTML:

- Semantic Elements (<header>, <nav>, <section>, <article>, <aside>, <footer>, <main>)
- Importance for Accessibility and SEO

#### 9. Comments:

- Adding Comments (<!-- -->)
- Commenting Best Practices

### 10.HTML Entities:

- Special Characters (<, &gt;, &amp;)
- Symbolic Characters (©, ®)

### 11.Meta Tags:

- Character Encoding (<meta charset>)
- Description (<meta name="description">)
- Keywords (<meta name="keywords">)
- Viewport (<meta name="viewport">)

### 12.HTML5 Features:

- Multimedia Elements (<video>, <audio>)
- Graphics Elements (<canvas>, <svg>)
- Data Elements (<datalist>)
- Details and Summary (<details>, <summary>)

## HTML APPROXIMATE TIME DURATION:

No.	Topic	Approximate Time Duration
1.	Basic Structure	1.5 hours
2.	Text Formatting	1.5 hours
3.	Links and URLs	1.5 hours
4.	Images	1.5 hours
5.	Lists	1.5 hours
6.	Tables	1.5 hours
7.	Forms	3 hours
8.	Semantic HTML	1.5 hours
9.	Comments	1 hour
10.	HTML Entities	1 hour
11.	Meta Tags	1.5 hours
12.	HTML5 Features	3 hours
	Total	20 hours

### **CSS OUTLINE:**

#### 1. Introduction to CSS

- Role of CSS in Web Development
- CSS Syntax Overview

#### 2. Selectors

- Element Selectors
- Class Selectors
- ID Selectors
- Descendant Selectors
- Pseudo-classes and Pseudo-elements

#### 3. CSS Box Model

- Content
- Padding
- Border
- Margin

### 4. Typography

- Font Properties
- Text Alignment
- Text Decoration
- Text Transformation

### 5. Colors and Backgrounds

- Color Property
- Background-color Property
- Background-image Property
- Background-size Property

### 6. Margins, Padding, and Borders

- Margin Property
- Padding Property
- Border Property

### 7. Layout Techniques

- Float Layout
- Flexbox Layout
- Grid Layout

### 8. Positioning

- Static Positioning
- Relative Positioning
- Absolute Positioning
- Fixed Positioning

## 9. Responsive Design

- Media Queries
- Fluid Layouts
- Viewport Meta Tag

### **10. Transitions and Animations**

- Transition Property
- Animation Property

### 11.CSS Preprocessors

- Sass
- Less

### 12.CSS Frameworks

- Bootstrap
- Foundation

### **CSS APPROXIMATE TIME DURATION:**

No.	Topic	Approximate Time Duration
1.	Introduction to CSS	1.5 hours
2.	Selectors	1.5 hours
3.	CSS Box Model	1.5 hours
4.	Typography	1.5 hours
5.	Colors and Backgrounds	1.5 hours
6.	Margins, Padding, and Borders	1.5 hours
7.	Layout Techniques	3 hours
8.	Positioning	1.5 hours
9.	Responsive Design	3 hours
10.	Transitions and Animations	1.5 hours
11.	CSS Preprocessors	1.5 hours
12.	CSS Frameworks	1.5 hours
	Total	21 hours

**PROJECT: HTML + CSS = 17 hours** 

### PHP:

#### 1. Introduction to PHP

- What is PHP?
- PHP Syntax Overview
- Role of PHP in Web Development

### 2. Variables and Data Types

- Variable Declaration and Assignment
- Data Types (String, Integer, Float, Boolean, Array, Object, etc.)
- Variable Scope (Global vs. Local)

### 3. Operators

- Arithmetic Operators
- Assignment Operators
- Comparison Operators
- Logical Operators
- String Operators
- Increment/Decrement Operators

#### 4. Control Structures

- If...Else Statements
- Switch Statements
- Loops (For, While, Do...While, Foreach)
- Break and Continue Statements

#### 5. Functions

- Function Declaration and Invocation
- Return Values
- Parameters and Arguments
- Variable Functions
- Anonymous Functions (Closures)

### 6. Arrays

- Indexed Arrays
- Associative Arrays
- Multidimensional Arrays
- Array Functions (e.g., count(), sort(), array push(), array merge())

### 7. String Manipulation

- Concatenation
- String Functions (e.g., strlen(), strpos(), substr(), str replace())

#### 8. Forms Handling

- GET and POST Methods
- Form Validation
- Form Security (e.g., Cross-Site Scripting)

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#### 9. Sessions and Cookies

- Session Management
- Cookie Handling

### 10. File Handling

- Reading from Files
- Writing to Files
- File Uploads

### 11. Database Connectivity

- MySQLi Extension
- PDO (PHP Data Objects)
- Performing CRUD Operations

### 12. Error Handling

- Error Reporting Levels
- Try...Catch Blocks
- Custom Error Handling

### 13. Object-Oriented Programming (OOP)

- Classes and Objects
- Constructors and Destructors
- Inheritance
- Encapsulation
- Polymorphism

### 14. Security

- SQL Injection Prevention
- Cross-Site Request Forgery (CSRF) Protection
- Password Hashing (Using password hash() and password verify())

### 15. Regular Expressions

- Pattern Matching
- Validation

# **PHP Approximate Time Duration:**

No.	Topic	Approximate Time Duration
1.	Introduction to PHP	1.5 hours
2.	Variables and Data Types	1.5 hours
3.	Operators	1.5 hours
4.	Control Structures	1.5 hours
5.	Functions	3 hours
6.	Arrays	1.5 hours
7.	String Manipulation	1.5 hours
8.	Forms Handling	3 hours
9.	Sessions and Cookies	1.5 hours
10.	File Handling	1.5 hours
11.	Database Connectivity	3 hours
12.	Error Handling	1.5 hours
13.	Object-Oriented Programming	3 hours
14.	Security	1.5 hours
15.	Regular Expressions	1.5 hours
	Total	30 hours

**PROJECT: 23 Hours** 

### **Laravel OUTLINE:**

#### 1. Introduction to Laravel

- What is Laravel?
- Features of Laravel
- MVC Architecture

### 2. Installation and Setup

- Installing Laravel via Composer
- Configuration and Environment Setup

#### 3. Routing

- Basic Routing
- Route Parameters
- Named Routes
- Route Groups
- Middleware

#### 4. Controllers

- Creating Controllers
- Controller Methods
- Dependency Injection
- Middleware in Controllers

### 5. Views and Blade Templating

- Creating Views
- Blade Syntax and Directives
- Passing Data to Views
- Layouts and Master Views

### 6. Database Management with Eloquent ORM

- Model-View-Controller (MVC)
- Creating Models
- Eloquent Relationships (One-to-One, One-to-Many, Many-to-Many)
- Query Builder

### 7. Forms and Validation

- Creating Forms
- Form Validation
- Form Requests
- Error Handling

### 8. Authentication and Authorization

- User Authentication
- Authentication Guards and Providers
- Authorization Policies
- Role-Based Access Control (RBAC)

#### 9. Sessions and Cookies

- Session Management
- Cookie Handling

### 10. File Storage

- Uploading Files
- File Storage Configuration
- File System Drivers

#### 11.Middleware

- Custom Middleware
- Global Middleware
- Route Middleware

### 12. Error Handling and Logging

- Handling Exceptions
- Error Logging
- Custom Error Pages

### 13. Testing

- Unit Testing
- Feature Testing
- Test Database

### 14.API Development

- Creating RESTful APIs
- API Authentication
- API Rate Limiting

### 15. Task Scheduling

- Task Scheduling Syntax
- Task Scheduling Configuration

### 16. Localization and Internationalisation (L10n & I18n)

- Language Files
- Locale Detection
- Date and Time Localization

### 17. Caching

- Cache Configuration
- Cache Usage

#### 18. Queues and Jobs

- Queue Configuration
- Creating Jobs
- Dispatching Jobs

## 19. Deployment

- Preparing for Deployment
- Deploying Laravel Applications
- Environment Configuration

# Laravel approximate time duration:

No.	Topic	Approximate Time Duration
1.	Introduction to Laravel	1.5 hours
2.	Installation and Setup	1.5 hours
3.	Routing	1.5 hours
4.	Controllers	1.5 hours
5.	Views and Blade Templating	1.5 hours
6.	Database Management with Eloquent	3 hours
7.	Forms and Validation	1.5 hours
8.	Authentication and Authorization	3 hours
9.	Sessions and Cookies	1.5 hours
10.	File Storage	1.5 hours
11.	Middleware	1.5 hours
12.	Error Handling and Logging	1.5 hours
13.	Testing	3 hours
14.	API Development	3 hours
15.	Task Scheduling	1.5 hours
16.	Localization and Internationalization	1.5 hours
17.	Caching	1.5 hours

18.	Queues and Jobs	3 hours
19.	Deployment	1.5 hours
	Total	36 hours

**Project: 27 Hours** 

### **Git OUTLINE:**

#### 1. Introduction to Version Control

- What is Version Control?
- Benefits of Version Control
- Introduction to Git

### 2. Installation and Setup

- Installing Git
- Configuring Git
- Git Configuration Files

### 3. Basic Concepts

- Repository (Local and Remote)
- Commit
- Branching
- Merging
- Tagging

### 4. Git Workflow

- Basic Workflow (Add, Commit, Push)
- Branching Workflow (Feature Branching, Release Branching, GitFlow)
- Forking Workflow
- Pull Request Workflow

### 5. Working with Repositories

- Initializing a Repository
- Cloning a Repository
- Forking a Repository
- Adding and Removing Files
- Ignoring Files (Using .gitignore)

### 6. Branching and Merging

- Creating a Branch
- Switching Branches
- Merging Branches
- Resolving Merge Conflicts

#### 7. Remotes

- Adding Remotes
- Fetching Changes
- Pulling Changes
- Pushing Changes

### 8. Tags

- Creating Tags
- Listing Tags
- Checking out Tags

### 9. Undoing Changes

- Undoing Commits
- Discarding Local Changes
- Reverting Commits

### 10. Advanced Git Techniques

- Rebasing
- Cherry-picking
- Stashing
- Interactive Rebase

#### 11. Collaboration and Code Review

- Collaborating on GitHub/GitLab/Bitbucket
- Code Review Practices
- Pull Requests

### **12. Git Best Practices**

- Commit Messages
- Branch Naming Conventions
- Repository Organization

#### 13. Git Hooks

- Client-side Hooks
- Server-side Hooks

### 14. Git Workflows in Teams

- Agile Workflow
- GitFlow Workflow
- Feature Branch Workflow

# **Git approximate time duration:**

No.	Торіс	Approximate Time Duration
1.	Introduction to Version Control	1 hour
2.	Installation and Setup	1 hour
3.	Basic Concepts	1.5 hours
4.	Git Workflow	2.5 hours
5.	Working with Repositories	1.5 hours
6.	Branching and Merging	2.5 hours
7.	Remotes	1.5 hours
8.	Tags	1 hour
9.	Undoing Changes	1.5 hours
10.	Advanced Git Techniques	2.5 hours
11.	Collaboration and Code Review	2.5 hours
12.	Git Best Practices	1.5 hours
13.	Git Hooks	1.5 hours
14.	Git Workflows in Teams	2.5 hours
	Total	23.5 hours

Final project: 30 Hours