



## Introduction to Web PT ⏰ 11 hours of content | 60 hours of practice | Final project

### 1. HTML

- Introduction to HTML
  - What is HTML
  - Purpose of HTML
  - HTML syntax
- HTML Elements
  - HTML tags and attributes
  - HTML structure and hierarchy
  - Block-level and inline-level elements
  - Semantic HTML
- Document Structure
  - HTML document structure
  - Head and body sections
- Text Formatting
  - Text formatting tags
  - Heading tags
  - Paragraph tags
  - Lists
- Links and Images
  - Anchor tags and href attribute
  - Image tags and src attribute
  - Image formats
- Tables
  - Table tags
  - Table structure
  - Table cells and rows
- Forms
  - Form tags
  - Input types and attributes
  - Submit buttons

### 2. CSS

- Introduction to CSS
  - What is CSS
  - Purpose of CSS
  - CSS syntax
  - Inline, internal, and external styles
- CSS Selectors
  - CSS selector types
  - Selector specificity
  - Selector combinations
  - Pseudo-classes and pseudo-elements
- Box Model and Layout
  - Box model
  - Margin, border, padding
  - Display property
  - Float and clear
  - Positioning
- Colors and Backgrounds
  - Color models
  - Color properties
  - Background properties
- Responsive Design
  - Responsive units
  - Flexbox
- CSS and HTML
  - Linking CSS and HTML
  - Styling HTML elements
  - Advanced CSS selectors

### 3. JavaScript

- Introduction to JavaScript
  - What is JavaScript
  - Purpose of JavaScript
  - JavaScript syntax
  - Inline, internal, and external scripts
- Variables and Data Types
  - Variables
  - Data types
  - Type coercion
- Operators and Expressions
  - Arithmetic operators
  - Comparison operators
  - Logical operators
  - Conditional statements
- Functions
  - Function definition and invocation
  - Parameters and arguments
  - Return statement
- Arrays and Objects
  - Array definition and manipulation
  - Object definition and manipulation
  - Properties and methods
  - JSON format
- Loops and Iteration
  - For loop
  - While loop
  - Do-while loop
  - Array iteration methods
- DOM Manipulation
  - Introduction to the DOM
  - DOM traversal and manipulation
  - Event handling
- AJAX and Fetch API
  - Introduction to AJAX
  - Fetch API
  - JSON data format
- Error Handling and Debugging
  - Common JavaScript errors
  - Debugging tools
- ES6 Features
  - let and const keywords
  - Arrow functions
  - Template literals
- jQuery
  - Introduction to jQuery
  - Ajax with jQuery

## 4. SQL

- Introduction to SQL
  - What is SQL?
  - Purpose of SQL
  - SQL syntax
  - SQL data types
- Creating Tables
  - Creating tables
  - Defining columns
  - Setting primary keys
  - Defining data types
- Inserting Data
  - Inserting data into tables
  - Using INSERT statement
  - Using VALUES keyword
- Reading Data
  - Reading data from tables
  - Using SELECT statement
  - Filtering data with WHERE clause
  - Sorting data with ORDER BY clause
- Updating Data
  - Updating data in tables
  - Using UPDATE statement
  - Modifying data with SET clause
  - Filtering data with WHERE clause
- Deleting Data
  - Deleting data from tables
  - Using DELETE statement
  - Filtering data with WHERE clause

## 5. PHP

- Introduction to PHP
  - What is PHP
  - Purpose of PHP
  - PHP syntax
  - Inline, internal, and external scripts
- Variables and Data types
  - Variables
  - Data types
  - Type coercion
  - Scope
- Operators and Expressions
  - Arithmetic operators
  - Comparison operators
  - Logical operators
  - Conditional statements
- Functions
  - Function definition and invocation
  - Parameters and arguments
  - Return statement
- Arrays and Objects
  - Array definition and manipulation
  - Object definition and manipulation
  - Properties and methods
  - JSON format
- Control Structures
  - If/else statements
  - Switch statements
  - Loops (for, while, do-while)
  - Break and continue statements
- Forms and User Input
  - Handling form data
  - Retrieving user input with GET and POST
  - Sanitizing and validating user input
  - Session handling
- Cookies
  - Introduction to cookies
  - Setting and retrieving cookies
  - Deleting cookies
- Database Connectivity
  - Introduction to database connectivity
  - Connecting to databases
  - Executing SQL queries
  - Retrieving and manipulating data
  - Prepared statements
- PHP and HTML
  - Embedding PHP in HTML
  - Using PHP to generate HTML content

## 6. BASIC CRUD application

- Using html, CSS, js, SQL and php to
  - Read data from DB
  - Update data into tables and columns
  - Inserting data into DB
  - Deleting data from DB

## 7. Complete web application

- Create Login and register mechanism
- Creating pagination
- Updating user profile
- Session in PHP