

Netzwerk Academy's FULL STACK WEB DEVELOPMENT

The course is covered in 3 modules

1. Front end development (JavaScript, HTML, CSS)
2. Middleware (MongoDB)
3. Back-end development (Python programming)

Detailed syllabus is as given below

HTML

1. Introduction

- 1.1.What is HTML

2. HTML

- 2.1.Role of HTML

3. Formatting text

- 3.1.The syntax of HTML elements
- 3.2.Paragraphs
- 3.3.Headlines
- 3.4.Bold and italics
- 3.5.Lists
- 3.6.Quotes
- 3.7.Date & time
- 3.8.Code, pre, and br
- 3.9.Superscripts, subscripts, and small text

4. Understanding the Power of HTML

- 4.1.Debugging HTML
- 4.2.HTML attributes
- 4.3.ARIA roles
- 4.4.Formatting HTML
- 4.5.Weird characters

5. Linking and Navigation

- 5.1.Links
- 5.2.URL paths
- 5.3.Navigations

6. Images and Graphics

- 6.1.Images
- 6.2.Image format
- 6.3.Responsive images
- 6.4.Responsive width
- 6.5.Responsive pictures
- 6.6.Figure and figcation

6.7.Media

- 6.7.1. Audio
- 6.7.2. Video
- 6.7.3. Captions & Subtitle
- 6.7.4. Embedding other media through iframes

6.8.Putting it all together

- 6.8.1. HTML page
- 6.8.2. Document head
- 6.8.3. Structing content

6.9.Forms and interacting elements

- 6.9.1. HTML forms basics
- 6.9.2. More on forms

6.10. Structing tabular data

- 6.10.1. When to use tables
- 6.10.2. Building table rows

6.11. Wrap up

- 6.11.1. HTML & CSS
- 6.11.2. Browser developer tools
- 6.11.3. Referencing CSS
- 6.11.4. Overview & setup

CSS

1. Optimising images & Retina display
2. Relative paths in project
3. Absolute path

4. Core concepts

5. CSS specification and W3C
6. CSS syntax and terminology
7. CSS values and units
8. Color and property value

9. Type and universal selector
10. Class & ID selector
11. Class & ID selector exercise
12. Descendant selectors
13. Grouping selectors
14. Inheritance and specificity
15. The cascade and its importance
16. Adding colors with project
17. Pseudo class selectors and links
18. Styling links with project

19. **BOX model**

- 19.1. Introduction
- 19.2. Inline, block and display
- 19.3. BOX model properties
- 19.4. Syntax and usage
- 19.5. Debugging
- 19.6. Padding, margin and border
- 19.7. Margin and layouts
- 19.8. Adding content wrapper with project example
- 19.9. Margin and padding in project example

20. **Typography**

- 20.1. Typography for the web
- 20.2. Changing the font-family
- 20.3. Font-weight and font-style
- 20.4. Web fonts with @font-face
- 20.5. Web fonts with Google Fonts
- 20.6. Project: Google Fonts
- 20.7. The font-size property
- 20.8. Font shorthand
- 20.9. Text-decoration, text-align, and line-height
- 20.10. Project: Typography styles

21. **Layouts: Float and Position**

- 21.1. Introduction to float
- 21.2. The float and clear properties
- 21.3. Float and collapsed container
- 21.4. Layouts and the box model
- 21.5. Project: Float and box model fix
- 21.6. Position
- 21.7. Position and z-index
- 21.8. Layouts: flexbox and grid

22.Layouts: Float and Position

- 22.1. Introduction to float
- 22.2. The float and clear properties
- 22.3. Float and collapsed container
- 22.4. Layouts and the box model
- 22.5. Project: Float and box model fix
- 22.6. Position
- 22.7. Position and z-index
- 22.8. Advanced selector
- 22.9. Layouts: Float and Position
- 22.10. Responsive Layouts

Wrap Up

Javascript

- 1. JavaScript Introduction
- 2. Basics of JavaScript
- 3. Coding First Line of JavaScript
- 4. Brief Overview of JS, Websites & Web Technologies
- 5. Html, CSS & JavaScript Overview
- 6. Deep Dive in JavaScript
- 7. Downloading & Installing VS Code IDE
- 8. Writing JS in VS Code
- 9. Getting Started with JavaScript
- 10. JavaScript Console API
- 11. Different ways to write JavaScript
- 12. Variables in JavaScript
- 13. Comments in JavaScript
- 14. Data Types in JavaScript
- 15. Operators in JavaScript
- 16. Functions in JavaScript
- 17. Conditional Statements in JavaScript
- 18. Loops in JavaScript
- 19. Break and Continue Statements
- 20. Array Methods
- 21. String Methods
- 22. Dates in JS
- 23. JavaScript DOM Manipulation
- 24. JavaScript Events
- 25. JavaScript SetTimeout and SetInterval
- 26. Local Storage in JavaScript

- 27.About JSON
- 28.JavaScript Versions
- 29.Project – 1 (JavaScript Clock)
- 30.Project – 2 (An Amazing JavaScript To-do List)
- 31.Wrap Up

PYTHON

CORE PYTHON:

1. Basics

- 1.1 Installation
- 1.2 Environment Setting
- 1.3 SDK for Code Execution
- 1.4 Python Pros and Cons
- 1.5 Advantages of Python

2. Data types

- 2.1 Mutable and Immutable Categories
- 2.2 Data Type Representation

3. Conditional statements

- 3.1 if else if and else
- 3.2 while statement

4. Loops and control statements

- 4.1 `__iter__` and `__next__`
- 4.2 break and continue statement
- 4.3 enumerate
- 4.4 range
- 4.5 else in for loop

5. Strings

- 5.1 Inbuilt Function Manipulation

6. List

- 6.1 Inbuilt Function Manipulation

7. Tuples

- 7.1 Inbuilt Function Manipulation

8. Dictionaries

8.1 Inbuilt Function Manipulation

9. Functions

9.1 Types of Functions

9.2 return statement

9.3 Function Scoping

9.4 Execution of Nested Function

10.Exception handling

10.1 Types of Exception and Exception Base class

10.2 Types of except block

10.3 optimized Exception Execution

10.4 raise method

10.5 “else” and “finally”

10.6 user Defined Exception

Advanced Python:

11.OOP concepts

11.1 document string

11.2 Inheritance and Types

11.3 Data Hiding (Access Specifier)

11.4 Decorators

11.5 Polymorphism

11.6 Method Resolution Order

12.Regular expression

12.1 match and search method

12.2 flags (re.I and re.M)

12.3 findall method

12.4 sub and split method

12.5 detailed explanation on literals and anchor symbols

13.Database

1. SQLite3 Execution

2. Basic of Tkinter implementation

3. Code with Exception

4. Basics of ORM implementation

14.Networking

14.1 Socket Basics

14.2 Client and Server Message Sharing Code

14.3 Paramiko and Netmiko Basics

15. Multi-threading

15.1 Multithreading Basics

15.2 Difference between Multithreading and Multiprocessing

15.3 Concurrency and Parallel Execution Thread

16. File Operation (txt file)

16.1 Context Manager

16.2 Basic File Operation (read, write, append)

16.3 tell() and seek() method

17. Date Time Manipulation

17.1 import datetime and time

17.2 Change time format

17.3 Adding Hours, minutes and Seconds

18. Import and Packages

18.1 Path Reference

18.2 Optimized Code Execution

18.3 Circular Import

18.4 __name__ and __main__ explanation

19. Mongo DB

19.1 Introduction

19.2 Data Modelling

19.3 Data Types

19.4 DB Operation – 1

19.5 DB Operation – 2

19.6 Modelling Relationship

19.7 PyMongo

20. Flask

20.1 API Introduction

20.1 Hosting a website and server concepts

20.3 Difference between Django and Flask

20.4 Input Files and Output Files (JSON)

20.5 Flask Running with Example

20.6 Tools for Testing (PostMan or Insomania)

21. Django

21.1 Django Essentials

21.2 API Creation

21.3 IP and PORT Change

21.4 Admin Page Accessing

21.5 Rendering HTML internally and Externally

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