

WEEK ONE

HYPERTEXT MARKUP LANGUAGE (HTML)

What You Will Learn

MODULE 1: INTRODUCTION

History of the Internet and the World Wide Web
Definition of types of Apps (Native Apps/Web App/Websites)
Breakdown of Web Development Components (Frontend and Backend)
Web Development Tools Installation and setups (Browsers, Text Editors)

MODULE 2: HTML BASICS

History and Development of HTML, Versions
HTML Syntax, Semantic HTML
Terminologies, Files, Folders
Tree Structure, Nesting and Indentation
Starting a website, HTML coding
Commenting(how to and purpose)

MODULE 3: HTML TEXT FORMATTING TAGS

Common HTML TAGS

Header Tags,Bold,Strong,Italics,insert,delete,
block level elements,inline level elements,Emphasis,paragraph,
Quote,Marquee,sub,sup,div,span,css background color,color,text align
Headings, Paragraphs, Bold, Italic, Emphasis, Quote, Cite, Marquee, etc
Lists (ordered, unordered,descriptive,nested)
How web pages are linked using Anchor tags
Commenting

MODULE 4: HTML MULTIMEDIA

Adding Images (src,width,height,alt
Audio(src,controls,autoplay,loop)
Video files (src,controls,autoplay,loop)
Youtube Video Embedding using Iframe
How to download multimedia content from a page using anchor tag
Frame Tag

MODULE 5: HTML FORMS

Form Inputs, Input types and attributes
(Form, Fieldset, Legend, Input
Types(text(properties):placeholder,maxlength,minlength,required)
Other Input Types(number,email,password,date,month,time,range,color,file,
radio,checkbox,reset)
Select and Option
Text Area
Button, input (type:submit), input(type:button)

HTML Form Control
Form Tag Action and Method

MODULE 6: HTML TABLES

Tables, rows, and column
Rowspanning and Colspanning

PROJECT EXAMPLES:

Google Logo Design, Letter to a friend, Blog Post, Portfolio, Booking Form(e.g. wakanow.com), CBT Exam, Chess Board,Ludo Board,Scrabble Board.

WEEK TWO - THREE

CASCADING STYLE SHEET (CSS)

What You Will Learn

MODULE 1: INTRODUCTION TO CSS

- The power of CSS in web design
- History of CSS, Versions, Vendor Prefixes
- How does CSS look like (CSS Syntax)
- Methods of linking HTML and CSS together
- Definition: Selectors, Properties, Values, and Units

MODULE 2: CSS BOX MODEL

- Passing Borders, Margin, and Padding to HTML Tags
- Specifying height and width for HTML elements
- Scope/Level of HTML elements (Block and Inline)
- Background Images, Background Colors, Gradients, Box Shadow

MODULE 3: CSS TEXT FORMATTING

- Font-families (generic, Font Names)
- Web-safe fonts, Font fallbacks (font stack)
- Font CDN (Google Fonts, Adobe Fonts)
- Font size, Font style, Font Weights, Color
- Text transform, text-indent, text stroke, text-shadow
- Text decoration, line height, letter spacing, word spacing, etc

MODULE 4: WEB PAGE LAYOUT

- Floats, Tables,
- The Display property (inline, block, inline-block, flex, grid)
- Positions (static, sticky, fixed, relative, and absolute)
- Structuring Web page using Flexbox
- Structuring Web page using Grid

MODULE 5: CSS 3 CORE

- Transforms (rotate, skew, translate and scale)
- Transition, Animations, Clipath, Filters

MODULE 6: RESPONSIVE WEB DESIGN

- How to design a website that behaves well on all screens (phone, tablet and desktop) using media queries,
- Feature Queries
- Styling for print

Click [here](#) to see available useful course materials for further reading

PROJECT EXAMPLES : Printivo, SQI Landing Page, WPS OFFICE Download Page,

WEEK FOUR

SYNTACTICALLY AWESOME STYLESHEET (SASS)

What You Will Learn

MODULE 1: INTRODUCTION TO SASS

Definition: Preprocessors

Sass Installation, variants

Sass Basics (Variables, Map, Nesting, partials, @import, @mixin, @include, @extend)

MODULE 2: SASS FUNCTIONS

Mixins, Color Functions, Lists,

Sass Selectors, Sass String, Math Function

Introspection, conditional statements (@if, @each, etc)

MODULE 3: APPLICATION

Creating your first portfolio using sass

Customizing Bootstrap with Sass

WEEK FOUR - FIVE

BOOTSTRAP CSS

What You Will Learn

MODULE 1: INTRODUCTION TO BOOTSTRAP CSS

History of Bootstrap CSS, Versions
How is Bootstrap different from conventional CSS
Bootstrap Installation, Download, CDN
Bootstrap Basic Examples

MODULE 2: BOOTSTRAP UTILITIES AND TYPOGRAPHY

Reboot, Typography, Images, Tables
Figures, Background, Borders, Colors
Display, Flex, Float, Interactions
Overflow, Position, Shadows, Sizing,
Spacing, Text, Vertical align, Visibility

MODULE 3: BOOTSTRAP COMPONENTS

Accordion, Alerts, Badge, Breadcrumb
Buttons, Button group, Card, Carousel
Close button, Collapse, Dropdowns
List group, Modal, Navs & tabs
Navbar, Pagination, Popovers
Progress, Scrollspy, Spinners
Toasts, Tooltips

MODULE 4: BOOTSTRAP LAYOUT

Breakpoints, Bootstrap Containers classes
Making Web Layout using Bootstrap Grid System
Columns, Gutters, Utilities, Z-index

MODULE 5: BOOTSTRAP FORMS

Overview, Form control, Select,
Checks & radios, Range, Input group
Floating labels, Form Layout, Form Validation

MODULE 6: PUTTING IT TOGETHER

Build a responsive modern website using Bootstrap

TAILWIND CSS

What You Will Learn

MODULE 1: INTRODUCTION TO TAILWIND CSS

History of Tailwind css
How is Tailwind different from conventional CSS and Bootstrap
Tailwind Installation, Download, CDN
Bootstrap Basic Examples

MODULE 2: CUSTOMIZATION AND LAYOUT

Breakpoints, Colors, Spacing, Variants etc
Container, Box Decoration Break, Box Sizing
Display, Floats, Clear, Isolation, Object Fit,
Object position, Overflow, Overscroll Behavior,
Position, Visibility, Z-index, Top/Right/Bottom/Left

MODULE 3: FLEXBOX AND GRID

Flex Direction, Flex Wrap, Flex, Flex Grow
Flex Shrink, Order, Grid Template Columns
Grid Row Start / End, Grid Auto flow
Grid Auto Columns, Grid Auto Rows
Gap, Justify Content, Justify Items
Justify Self, Align Content, Align Items
Align Self, Place Content, Place items, Place Self

MODULE 4: SPACING AND SIZING

Padding Margin, Space Between
Width, Min-Width, Max-Width
Height, Min-Height, Max-Height

MODULE 5: TYPOGRAPHY

Font Family, Font Size, Font Smoothing, Font Style
Font Weight, Font Variant Numeric, Letter Spacing
Line Height, List Style Type, List Style Position
Placeholder Color, Placeholder Opacity, Text Align
Text Color, Text Opacity, Text Decoration, Text Transform
Text Overflow, Vertical Align, Whitespace, Word Break

MODULE 6: BACKGROUNDS & EFFECTS

Background Attachment, Background Clip, Background Color
Background Opacity, Background Origin, Background Position
Background Repeat, Background Size, Background Size
Background Image, Gradient Color Stops, Box Shadow
Opacity, Mix Blend Mode, Background Blend Mode

MODULE 7: BORDERS & TABLE

Border Radius, Border Width, Border Color, Border Opacity
Border Style, Divide Width, Divide Color, Divide Opacity
Divide Style, Ring Width, Ring Color, Ring Opacity
Ring Offset Width, Ring Offset Color, Border Collapse, Table Layout

MODULE 8: TRANSITIONS AND TRANSFORMS

Transition Property, Transition Duration, Transition Timing Function
Transition Delay, Animation, Transform, Transform Origin
Scale, Rotate, Translate, Skew

GIT(LOCAL GIT)

What You Will Learn

MODULE 1: INTRODUCTION TO GIT

History of Git (Global Information Tracker) and GitHub

Types of Version Control Systems (Distributed and Centralized)

What is it used for :

- Collaboration
- Version Control History
- Portfolio
- Open Source
- Backup
- Remote

Git Installation and set up

MODULE 2: GIT SETUP, INIT, STAGE AND SNAPSHOT

git init,

git config(username and email)

Stages in git

git add,

git rm – cached nameoffile

git commit

git log

git status,

git diff,

git reset

MODULE 3: GIT BRANCH, MERGE AND IGNORE

Using touch to create files

.gitignore(how to ignore files)

git branch: how to create a branch, what it means.

git checkout

git merge

How to work in a branch etc (checkout into a branch) etc.

Providing a copy of git cheat sheet

Note: There is more to git!!. Thanks!!!

HOSTING AND DEPLOYMENT

What You Will Learn

MODULE 1: HOSTING AND DEPLOYMENT

Definition of common terms (Hosting, Deployment, Domain Name, Servers).

Deploying to any hosting platform. netlify.com is advised.

Changing domain names and deleting deployments.

How to redeploy an already deployed app

Providing a list of free and paid hosting platforms.

List of sites

Paid:

1. Namecheap
2. Qservers
3. Godaddy
4. Whogohost
5. Bluehost
6. hostinger

Free:

1. 000webhost
2. infinityfree
3. netlify
4. Firebase
5. GitHub pages
6. Heroku

DOCUMENTATION

What You Will Learn

MODULE 1: DOCUMENTATION

Definition and importance of documentation

Rules of documentation (clarity,sectioning etc)

Making use of comments in documentation

What is API and API documentation

Examples of REST APIs one can use

rapidapi.com (gives access to thousands of APIs)

openweathermap.org,

jsonplaceholder.typicode.com,

api.github.com/users

state and capital,

map,signin with other services

Crypto API

News API,

<https://nigerian-states-info.herokuapp.com/api/v1/states/lagos>

<https://github.com/public-apis/public-apis>

Common Examples of Documentation (Paystack,Bootstrap,Laravel)

Using Postman for requests

Endpoints

An overview of projects done by students using API

Links to the project :

<https://michael-all-countries.netlify.app/>

<http://complicated.netlify.app>

<https://windyway.netlify.app/>

<https://smart-empire-weather-app.netlify.app/>

<http://waasura.netlify.app>

<https://novaflx.vercel.app/>

PROSPECT WEEK

What You Will Learn

MODULE 1: PROSPECT WEEK

Prospect week aims to bridge the gap between students who do not know the various paths available in the tech world. The aim is to explain what each path entails if they choose to follow any. The current paths we have at SQI College of ICT are :

1. Data Science
2. Robotics
3. Web Application Development
4. Cyber Security
5. Native Application Development
6. UI/UX Developer

We should also highlight the levels and amount it will cost and the things they will be able to do by the end of such courses.

A day will be used to discuss other important things such as communication skills, writing skills, ethical behaviors (dressing, punctuality, humility), social media presence, being a brand, Affiliation with SQI College of ICT, screen recording, screenshots. It will also be to encourage them on their journey as it will not exactly be easy, but learning to become a world-class professional is not exactly easy either but it is quite rewarding.