

# **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**

- Setting 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, Clippath, 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,
- Positon, 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, sign in 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://novaflix.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.