Introduction to HTML and CSS - Exercises

Topics Covered

- **What is HTML?**
- **HTML Syntax**
- **Tags:**
  - **html, head, title, meta, body,**
  - **h1, h2, h3, h4, h5, h6, p, a, strong, em, ul, ol, li, dl, dt, dd, img, blockquote**
  - **main, aside, article, section, header, footer**
  - **details, summary, figure, caption**
- **What is CSS?**
- **CSS Syntax**
- **Properties**
  - **background, color**
  - **border, border-radius**
  - **padding**
  - **font-family, font-weight, font-style**
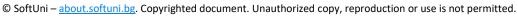 - **text-decoraition**
  - **list-style**

Resources

- **HTML Element references on MDN:**
  - https://developer.mozilla.org/en-US/docs/Web/HTML/Element
- **HTML Basics**
  - https://developer.mozilla.org/en-US/docs/Learn/Getting_started_with_the_web/HTML_basics
- **Semantics:**
  - https://developer.mozilla.org/en-US/docs/Glossary/Semantics
- **W3 Validator:**
  - https://validator.w3.org
- **CSS Basics:**
  - https://developer.mozilla.org/en-US/docs/Learn/Getting_started_with_the_web/CSS_basics
- **CSS Reference:**
  - https://developer.mozilla.org/en-US/docs/Web/CSS/Reference

Tasks

1. Simple image gallery

Build a simple image gallery using HTML and CSS to display a collection of images.

Follow us:

Requirements

- **HTML Document Setup**:
  - Create an **HTML** document named **image-gallery.html**.
  - Include a **<div>** container to hold the image gallery.
- **CSS File Setup**:
  - Create a **CSS** file named **gallery-styles.css**.
  - Link the **gallery-styles.css** file to your **image-gallery.html** document using the **<link>** tag in the **<head>** section.
- **Gallery Structure**:
  - Inside the gallery container, use **<img>** tags to include the 12 provided images.
  - Optionally, wrap each **<img>** tag in an **<a>** tag so that the images can be clicked to view the full size in a new tab.

Resources

- https://unsplash.com/
- https://developer.mozilla.org/en-US/docs/Web/HTML/Element/img
- https://developer.mozilla.org/en-US/docs/Web/HTML/Element/div
- https://developer.mozilla.org/en-US/docs/Web/HTML/Element/ul

2. ToDo List

Build a simple ToDo List using HTML and CSS.

Requirements

- **HTML Document Setup**:
  - Create an **HTML** document named **todo-list.html**.
  - Include a basic **HTML** structure (**<!DOCTYPE html>**, **<html>**, **<head>**, **<body>**).
- **CSS File Setup**:
  - Create a **CSS** file named **todo-list.css**.
  - Link the **todo-list.css** file to your **todo-list.html** document using the **<link>** tag in the **<head>** section.
- **Structure**:

o   Use 2 unordered lists to represent tasks that are outstanding and tasks that are done

Resources

- https://developer.mozilla.org/en-US/docs/Web/HTML/Element/ul
- https://developer.mozilla.org/en-US/docs/Web/CSS/text-decoration

3. Navigation Bar

Build a simple navigation bar using HTML and CSS that includes links to different sections of a website.

- Home
- About
- Services
- Contact

Requirements

- **HTML Document Setup**:
    o   Create an **HTML** document named **navigation.html**.
    o   Include the basic **HTML** structure (doctype, html, head, body).
- **CSS File Setup**:
    o   Create a **CSS** file named **navigation.css**.
    o   Link the **navigation.css** file to your **navigation.html** document using the **<link>** tag in the **<head>** section.
- **Structure**:
    o   The navigation bar should be contained within a **<nav>** element.
    o   Include an unordered list (**<ul>**) within the **<nav>** element. Each item in the list (**<li>**) represents a link (**<a>**) to a section of the website (e.g., Home, About, Services, Contact).

Resources

- https://developer.mozilla.org/en-US/docs/Web/HTML/Element/nav

4. List of blog posts

Develop a simple webpage that displays a list of blog posts, each with a title, an excerpt, and meta information including the post time and author.

The Evolution of Web Design

March 10, 2024 by **Alex Johnson**

Web design has come a long way since the early days of the internet...

Understanding CSS Grid

March 15, 2024 by **Sam Lee**

CSS Grid is a powerful layout system available in CSS...

Requirements

- **HTML Document Setup**:
    o   Create an **HTML** document named **list-of-posts.html**.

- o Ensure the document includes the basic HTML structure (doctype, html, head, body).
- **CSS File Setup**:
  - o Create a **CSS** file named **list-of-posts.css**.
  - o Link the **list-of-posts.css** file to your **list-of-posts.html** document using the **<link>** tag in the **<head>** section.
- **Blog Posts Structure**:
  - o Use an **<article>** element for each blog post to semantically represent the content.
  - o Within each **<article>**, include a **<header>** element that contains the post title (**<h2>**), post time (**<time>**), and author (**<span>** or **<p>**).
  - o Follow the header with a paragraph (**<p>**) serving as the post excerpt or summary.

Resources

- https://developer.mozilla.org/en-US/docs/Web/HTML/Element/article
- https://developer.mozilla.org/en-US/docs/Web/HTML/Element/header
- https://developer.mozilla.org/en-US/docs/Web/HTML/Element/section
- https://developer.mozilla.org/en-US/docs/Web/HTML/Element/footer
- https://developer.mozilla.org/en-US/docs/Web/HTML/Element/p
- https://developer.mozilla.org/en-US/docs/Web/HTML/Element/blockquote

5. Single blog post page with comments

Create a single blog post page that displays the post content along with a comments section below it.

Blog Post Title

Posted by **Author Name** on January 24, 2024

This is the introduction of your blog post...

Comments

John Doe - January 25, 2024

This is a comment on the blog post.

Requirements

- **HTML Document Setup**:
  - o Create an **HTML** document named **single-post.html**.
  - o Include the standard HTML structure (**<!DOCTYPE html>**, **<html>**, **<head>**, **<body>**).
- **CSS File Setup**:
  - o Create a **CSS** file named **single-post.css**.
  - o Link the **single-post.css** file to your **single-post.html** document using the **<link>** tag in the **<head>** section.
- **Structure**:
  - o Use semantic **HTML** to structure the blog post. This should include a **<header>** with the post title (**<h1>**) and metadata such as the author and publish date (**<p>**).
  - o Include a **<main>** section for the blog post content, utilizing **<p>** for paragraphs, **<h2>** for subheadings, and other relevant tags as needed for the content (e.g., **<img>** for images, **<blockquote>** for quotes).

- Below the blog post, include a **<section>** for comments. Each comment should be contained within an **<article>** tag, with a **<header>** for the commenter's name and the comment date, and a **<p>** for the comment text.

Resources

- https://developer.mozilla.org/en-US/docs/Web/HTML/Element/article
- https://developer.mozilla.org/en-US/docs/Web/HTML/Element/header
- https://developer.mozilla.org/en-US/docs/Web/HTML/Element/section
- https://developer.mozilla.org/en-US/docs/Web/HTML/Element/footer
- https://developer.mozilla.org/en-US/docs/Web/HTML/Element/p

6. Blog layout

Create a responsive blog layout with a main content area for blog posts and a sidebar for supplementary content, using HTML and CSS.

My Simple Blog

- Home
- About
- Contact

Blog Post Title

January 1, 2024 by Author Name

This is a summary of the blog post...

Read more...

About Me

Short bio or description about the blog author.

Categories

- Web Design
- HTML
- CSS

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Requirements

- **HTML Document Setup**:
    - Create an **HTML** document named **blog-layout.html**.
    - Include the standard HTML5 structure (doctype, html, head, body).
- **CSS File Setup**:
    - Create a **CSS** file named **blog-layout-styles.css**.
    - Link the **blog-layout-styles.css** file to your **blog-layout.html** document using the **<link>** tag in the **<head>** section.
- **Blog Layout Structure**:
    - Utilize semantic **HTML** tags to structure the layout, including **<header>**, **<main>**, **<article>**, **<aside>**, and **<footer>**.
    - The **<header>** should contain the blog's title or logo and a navigation menu.
    - The **<main>** area should display blog posts, each wrapped in an **<article>** tag, including titles (**<h2>**), publication dates (**<time>**), authors, summaries (**<p>**), and read more links (**<a>**).
    - The **<aside>** should serve as a sidebar, containing widgets or links such as "About Me", categories, recent posts, or social media links.
    - The **<footer>** should contain copyright information and/or links to privacy policy, terms of service, etc.