----:CSS CONCEPTS:----

**CSS Table of Contents**

1. **Introduction to CSS**
   * What is CSS?
   * How CSS Works (CSS Selectors and Declarations)
   * CSS Syntax and Rules
   * External, Internal, and Inline CSS

**Practice Project:** Style a simple HTML page with a title, headings, and paragraphs using different methods (inline, internal, external).

1. **CSS Selectors**
   * Basic Selectors (Tag, Class, ID)
   * Grouping Selectors
   * Universal Selector
   * Attribute Selectors
   * Pseudo-Classes & Pseudo-Elements (e.g., :hover, :first-child)

**Practice Project:** Create a list with various list items and use CSS selectors to apply different styles to specific items.

1. **CSS Box Model**
   * Understanding the Box Model (Content, Padding, Border, Margin)
   * Box-Sizing Property (border-box, content-box)
   * Overflow Property

**Practice Project:** Create a card layout using the box model to control padding, borders, and margins.

1. **CSS Layouts**
   * Display Property (block, inline, inline-block, none)
   * Positioning (Static, Relative, Absolute, Fixed, Sticky)
   * Z-Index
   * CSS Flexbox
   * CSS Grid

**Practice Project:** Build a two-column layout with a header and footer using CSS Grid and Flexbox.

1. **Styling Text**
   * Font Properties (Font Family, Size, Weight, Style)
   * Text Alignment and Decoration
   * Line Height, Letter Spacing, Word Spacing
   * Google Fonts Integration

**Practice Project:** Create a styled blog post page with custom fonts, headers, paragraphs, and links.

1. **Colors and Backgrounds**
   * CSS Colors (Named Colors, Hex, RGB, RGBA, HSL)
   * Backgrounds (Images, Gradients)
   * Background Attachment (Fixed, Scroll)
   * Opacity

**Practice Project:** Design a website section with gradient backgrounds and text overlays.

1. **Borders, Shadows, and Shapes**
   * Border Properties (Width, Style, Color)
   * Border Radius (Rounded Corners)
   * Box Shadows
   * CSS Shapes (Circles, Ovals, etc.)

**Practice Project:** Create a card component with rounded corners, shadows, and different border styles.

1. **CSS Transitions and Animations**
   * Transitions (Transition Property, Duration, Timing Functions)
   * Keyframe Animations (@keyframes)
   * Animation Properties (Timing Functions, Iterations, Direction)

**Practice Project:** Animate a button's hover state with smooth transitions and keyframe animations.

1. **Responsive Web Design**
   * Media Queries
   * Fluid Layouts
   * CSS Units (px, em, rem, vw, vh, %)
   * Responsive Typography

**Practice Project:** Build a simple responsive webpage that adapts to different screen sizes using media queries.

1. **CSS Flexbox in Depth**
   * Flex Container and Flex Items
   * Flex Direction, Justify Content, Align Items, Align Self
   * Order and Flex-Basis

**Practice Project:** Create a responsive navigation bar using Flexbox.

1. **CSS Grid in Depth**
   * Grid Container and Grid Items
   * Grid Template Columns, Rows
   * Grid Gaps, Grid Areas
   * Implicit vs Explicit Grids

**Practice Project:** Design a portfolio layout using CSS Grid.

1. **CSS Variables and Custom Properties**
   * Declaring and Using CSS Variables (var())
   * Global vs Local Scope
   * CSS Variables in Media Queries

**Practice Project:** Create a themed webpage where colors and styles are controlled by CSS variables.

1. **CSS Frameworks (Overview)**
   * Introduction to Bootstrap, Tailwind CSS
   * Using Pre-Built CSS Frameworks
   * Advantages & Disadvantages

**Practice Project:** Rebuild a simple webpage using a CSS framework like Bootstrap.

**Final Project: Complete Responsive Portfolio Website**

**Objective:**

Create a fully functional and responsive portfolio website with multiple sections:

1. Home
2. About
3. Portfolio/Projects
4. Blog
5. Contact

**Requirements:**

* **Responsive Layout**: The website should work well on different screen sizes (mobile, tablet, desktop).
* **Header and Navigation**: Create a sticky navigation bar with links to various sections.
* **Home Section**: Hero image with a welcome message and call-to-action button.
* **About Section**: Short bio with images and styling using Flexbox.
* **Portfolio Section**: Grid layout showcasing your previous projects.
* **Blog Section**: List of recent blog posts (can be dummy text) styled with responsive typography.
* **Contact Form**: A functional contact form using CSS forms (styling only, no backend required).
* **Animations**: Add CSS transitions and animations to elements like buttons and images on hover.
* **Custom Fonts and Colors**: Use custom fonts and colors, leveraging CSS variables for theme management.
* **CSS Grid and Flexbox**: Combine CSS Grid for the portfolio section and Flexbox for layout management elsewhere.

**Tools and Techniques Used in Final Project:**

* **HTML5 and CSS3**
* **Flexbox and CSS Grid**
* **Media Queries for Responsiveness**
* **Custom Properties (CSS Variables)**
* **CSS Transitions and Animations**
* **Google Fonts and Icons**
* **CSS Box Model for Spacing and Layout**
* **Optional: CSS Framework like Bootstrap (if you choose to use it)**

**Submission Guidelines:**

1. The website should be fully functional and responsive.
2. The final project should be hosted on a platform like **GitHub Pages**.
3. Write clean, well-organized CSS, using comments to describe different sections.
4. Optionally, submit a short readme file explaining the structure and design choices.