**CSS Complete Guide 📚**

**1. Introduction to CSS**

*/\* CSS = Cascading Style Sheets \*/*

* Used to add styling to HTML elements
* Makes websites visually appealing
* Controls layout, design, and responsiveness

**2. Ways to Add CSS**

1. **Inline CSS**:

<div style="color: blue; font-size: 16px;">

1. **Internal CSS**:

<style>

body { background: #f0f0f0; }

</style>

1. **External CSS**:

<link rel="stylesheet" href="styles.css">

**3. CSS Selectors**

**Basic Selectors**

*/\* Element Selector \*/*

p { color: red; }

*/\* Class Selector \*/*

.highlight { background: yellow; }

*/\* ID Selector \*/*

#header { font-size: 24px; }

**Combinators**

*/\* Child Selector \*/*

div > p { margin: 10px; }

*/\* Descendant Selector \*/*

div p { padding: 5px; }

*/\* Adjacent Sibling \*/*

h1 + p { font-weight: bold; }

**4. Box Model 📦**

.box {

*/\* Inside to Outside \*/*

content: "content area";

padding: 10px; */\* Inner spacing \*/*

border: 1px solid; */\* Border around element \*/*

margin: 20px; */\* Outer spacing \*/*

}

**5. Display Properties**

.element {

*/\* Common Display Values \*/*

display: block; */\* Takes full width \*/*

display: inline; */\* Takes content width \*/*

display: inline-block; */\* Hybrid \*/*

display: flex; */\* Flexible layout \*/*

display: grid; */\* Grid layout \*/*

}

**6. Position Properties 🎯**

.element {

position: static; */\* Default flow \*/*

position: relative; */\* Relative to normal position \*/*

position: absolute; */\* Relative to positioned parent \*/*

position: fixed; */\* Relative to viewport \*/*

position: sticky; */\* Based on scroll position \*/*

}

**7. Flexbox Layout 🔄**

.container {

display: flex;

justify-content: space-between;

align-items: center;

flex-direction: row;

flex-wrap: wrap;

}

**8. Grid Layout 📏**

.grid-container {

display: grid;

grid-template-columns: repeat(3, 1fr);

grid-gap: 20px;

grid-template-areas:

"header header header"

"sidebar main main";

}

**9. Responsive Design 📱**

*/\* Media Queries \*/*

@media screen and (max-width: 768px) {

.container {

flex-direction: column;

}

}

*/\* Flexible Units \*/*

.fluid {

width: 90vw;

font-size: 1.2rem;

margin: 2em;

}

**10. Transforms and Animations 🎨**

*/\* Transforms \*/*

.transform {

transform: rotate(45deg) scale(1.5);

}

*/\* Transitions \*/*

.smooth {

transition: all 0.3s ease-in-out;

}

*/\* Animations \*/*

@keyframes slide {

from { transform: translateX(0); }

to { transform: translateX(100px); }

}

.animate {

animation: slide 2s infinite;

}

**11. Modern CSS Features**

*/\* CSS Variables \*/*

:root {

--primary-color: #007bff;

}

*/\* Flexbox Grid System \*/*

.grid {

display: grid;

grid-template-columns: repeat(auto-fit, minmax(200px, 1fr));

}

*/\* CSS Custom Properties \*/*

.theme {

color: var(--primary-color);

}