

RESPONSIVE WEB DESIGN

FULL STACK SKILLS BOOTCAMP

CSS RESETS, MEDIA QUERIES AND CSS GRID

- **Lesson Overview:**
- In this lesson, we will be looking at CSS Reset stylesheets, why they exist and how they're used and then we'll move on to how Media Queries can be used to enhance responsive page behaviour. Finally we'll take a look at CSS Grid and where it can be used on modern websites.

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CSS RESET STYLESHEETS

■ What is a CSS Reset?

- **Definition:** A CSS reset is a set of rules that removes inconsistent default browser styling.
- **Purpose:** Ensures uniform styling across different browsers by “resetting” default styles.

■ Why is a CSS Reset Needed?

- Different browsers have their own default styles for elements (e.g., margins, padding).
- A reset stylesheet creates a clean slate, avoiding unintended design quirks.

```
/* CSS Reset */

/* Remove default margin and padding */
* {
  margin: 0;
  padding: 0;
  box-sizing: border-box;
}

/* Set default font size and line height */
html {
  font-size: 100%;
  /* Default font size of 16px */
  line-height: 1.5;
}
```

HOW TO IMPLEMENT A CSS RESET

- **Popular resets:** Normalize.css
- Eric Meyer's Reset CSS
- **Usage:** Add the reset stylesheet at the beginning of your CSS file or often a separate CSS file.
- Demo...

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MEDIA QUERIES

- **What are Media Queries?**
- **Definition:** Media queries are CSS techniques used to apply styles based on the device's characteristics, like screen size.
- **How it works:** They check conditions such as screen width, height, orientation, or resolution.

HOW MEDIA QUERIES ARE USED

- **Syntax example:**

```
@media (max-width: 600px) {  
  body {  
    background-color: lightblue;  
  }  
}
```

- **Responsive breakpoints:** Implementing different layouts for mobile, tablet, and desktop

TYPICAL USE CASES

- **Changing layouts** for different screen sizes (e.g., hiding sidebars on mobile).
- **Optimizing font sizes** for readability on various devices.
- **Adjusting images** (e.g., switching to smaller images for slower mobile connections).
- **Changing Menus** (e.g. switching between a desktop nav menu and a mobile “burger” menu)

Demo...



WHAT IS CSS GRID?

- **Definition:** CSS Grid Layout is a two-dimensional layout system for the web.
- **Why it's powerful:** Allows developers to create complex, responsive layouts without relying heavily on floats or positioning.

HOW CSS GRID WORKS

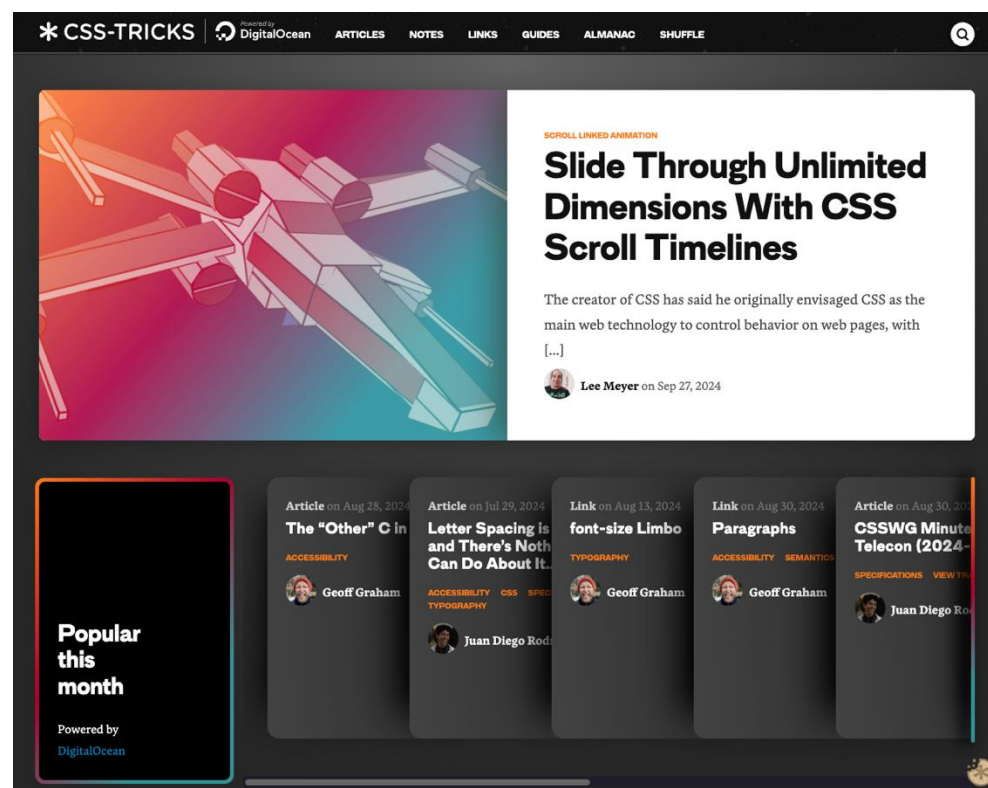
- **Grid container and items:**
- Define a grid with rows and columns in the container.
- Place items using grid-row, grid-column, and other properties.

```
.grid-container {  
  display: grid;  
  grid-template-columns: repeat(3, 1fr);  
}  
  
.grid-item {  
  grid-column: span 2;  
}
```

EXAMPLES OF REAL-WORLD USE

- **Real-world sites:** Many modern, grid-based layouts, such as news websites, blogs, and dashboards, rely on CSS Grid.
- **Case study:** An example (<https://css-tricks.com/>) demonstrating flexible grid-based designs.

Demo...



RECAP

- **Summary:** Recap the key tools for building responsive websites:
 - **CSS Resets:** Eliminate inconsistencies in default styles.
 - **Media Queries:** Apply styles based on device characteristics.
 - **CSS Grid:** Create flexible, responsive layouts.
- **Using media queries - MDN Web Docs:**
https://developer.mozilla.org/en-US/docs/Web/CSS/CSS_media_queries/Using_media_queries
 - **CSS-Tricks - A Complete Guide to Grid:**
<https://css-tricks.com/snippets/css/complete-guide-grid/>

QUESTIONS?