



#### **Objective:**

By completing this task, you will:

- ➤ Master CSS Grid layout system for complex two-dimensional layouts
- > Implement comprehensive responsive design using mobile-first methodology
- Create adaptive layouts that work seamlessly across all device sizes
- Combine CSS Grid with Flexbox for optimal layout solutions
- > Build a professional blog website with modern layout techniques

#### **Step 1 – Create Grid-Based Page Structure**

- > Set up the main page layout using CSS Grid with semantic grid areas
- > Define grid template areas for header, navigation, main content, sidebar, and footer
- > Use grid-template-columns and grid-template-rows to create a responsive foundation
- > Implement proper grid container properties with appropriate gap spacing

#### **Step 2 – Build Responsive Article Grid**

- > Create a main content area that displays blog articles in a responsive grid layout
- > Use repeat(), auto-fit, and minmax() functions for automatic responsive behavior
- > Design article cards that maintain consistent height and professional appearance
- > Implement grid item placement for featured articles that span multiple columns or rows

#### **Step 3 – Implement Mobile-First Responsive Design**

- > Start with mobile layout (single column) as your base design
- > Add tablet breakpoint (min-width: 768px) with two-column article grid
- > Create desktop breakpoint (min-width: 1024px) with sidebar and three-column layout
- > Use media queries to reorganize grid template areas at different screen sizes

#### **Step 4 – Combine Grid with Flexbox for Components**

- Use Flexbox within grid items for internal component alignment
- Create navigation bar using Flexbox that adapts responsively
- Design article cards with Flexbox for header, content, and footer sections
- > Implement footer layout with Flexbox columns that stack on mobile

#### **Step 5 – Add Advanced Grid Features and Polish**

- Create a featured article section that spans multiple grid cells
- ➤ Add a photo gallery using CSS Grid with different sized images
- > Implement hover effects and smooth transitions for interactive elements
- > Test responsiveness across multiple screen sizes and refine spacing

#### Requirements

CSS Grid Properties to Use:

- display: grid for main layout containers
- grid-template-columns, grid-template-rows for grid structure
- grid-template-areas for semantic layout definition
- grid-column, grid-row for explicit item placement
- > repeat(), auto-fit, minmax() for responsive grid creation
- gap property for consistent spacing

#### Requirements

Responsive Design Implementation:

- ➤ Mobile-first approach starting with single-column layout
- ➤ Minimum of 3 breakpoints: mobile (default), tablet (768px+), desktop (1024px+)
- Grid layout reorganization at each breakpoint
- Responsive typography scaling across screen sizes
- Flexible images that scale with container sizes

#### Requirements

**Layout Sections Required:** 

- ➤ Header with site branding and navigation
- ➤ Main content area with responsive article grid (minimum 6 articles)
- Sidebar with widgets (visible on desktop only)
- > Featured article section spanning multiple grid columns
- > Footer with multiple information columns
- Photo gallery showcasing grid layout capabilities

#### Reminder

- > Test your grid layout by resizing browser window to verify responsive behavior
- ➤ Use CSS Grid for page-level layout and Flexbox for component-level alignment
- ➤ Ensure your mobile design provides excellent user experience before enhancing for larger screens
- > Validate that grid areas reorganize logically at different breakpoints
- > Check that all content remains accessible and readable across all device sizes
- ➤ Use semantic HTML structure that complements your CSS Grid implementation

### THANKY

