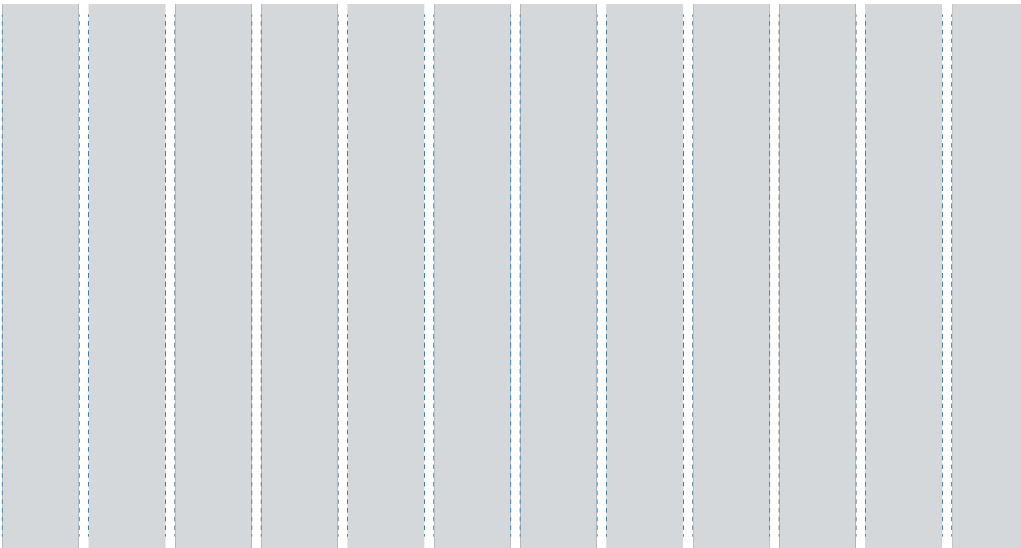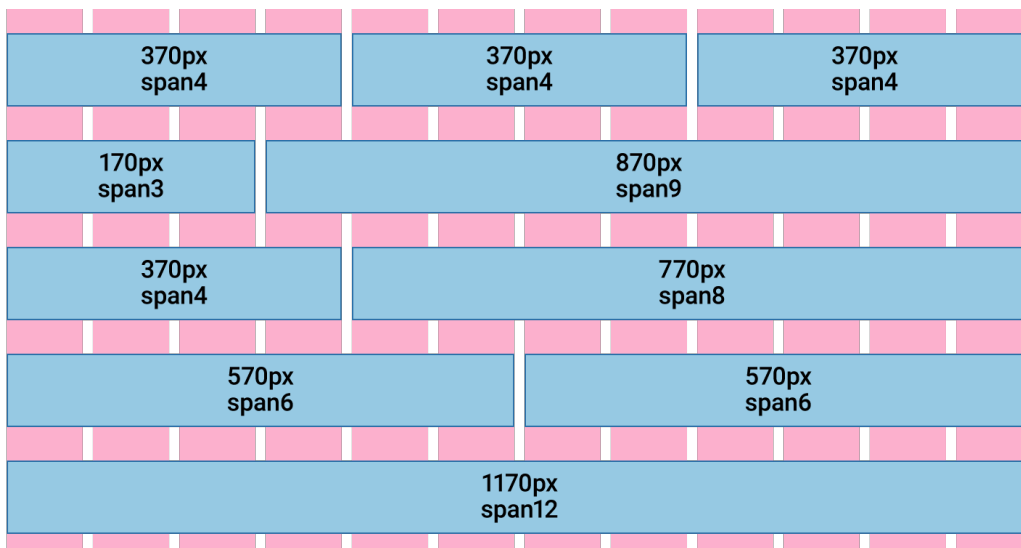# Understanding Grid-Based Layouts

Grid-based layouts are used throughout the design community. Used in the Gutenberg Bible, paper newspapers, and on all kinds of websites, grid-based layouts are an easy way of arranging content in print and on a webpage. In a **grid-based layout**, the page is divided into columns, making it easier to place elements in the layout. Everything aligns neatly, and the content is easy to consume, regardless of the platform. As such responsive design has incorporated the grid-based layout as one of its defining features.

How Grid-Based Layout Works

Imagine your web browser's window is divided into some number of columns — Twelve (12) columns is a common choice for a responsive grid-view — and has a total width of 100%. The display will expand and shrink as a user resizes the browser window. Include a little space between each column.

Twelve columns are too narrow to layout a webpage, usually, as text in these columns would be too hard to read. However, you could combine these narrow columns into wider units. For example, consider the graphic below that illustrates a webpage layout divided into twelve columns.
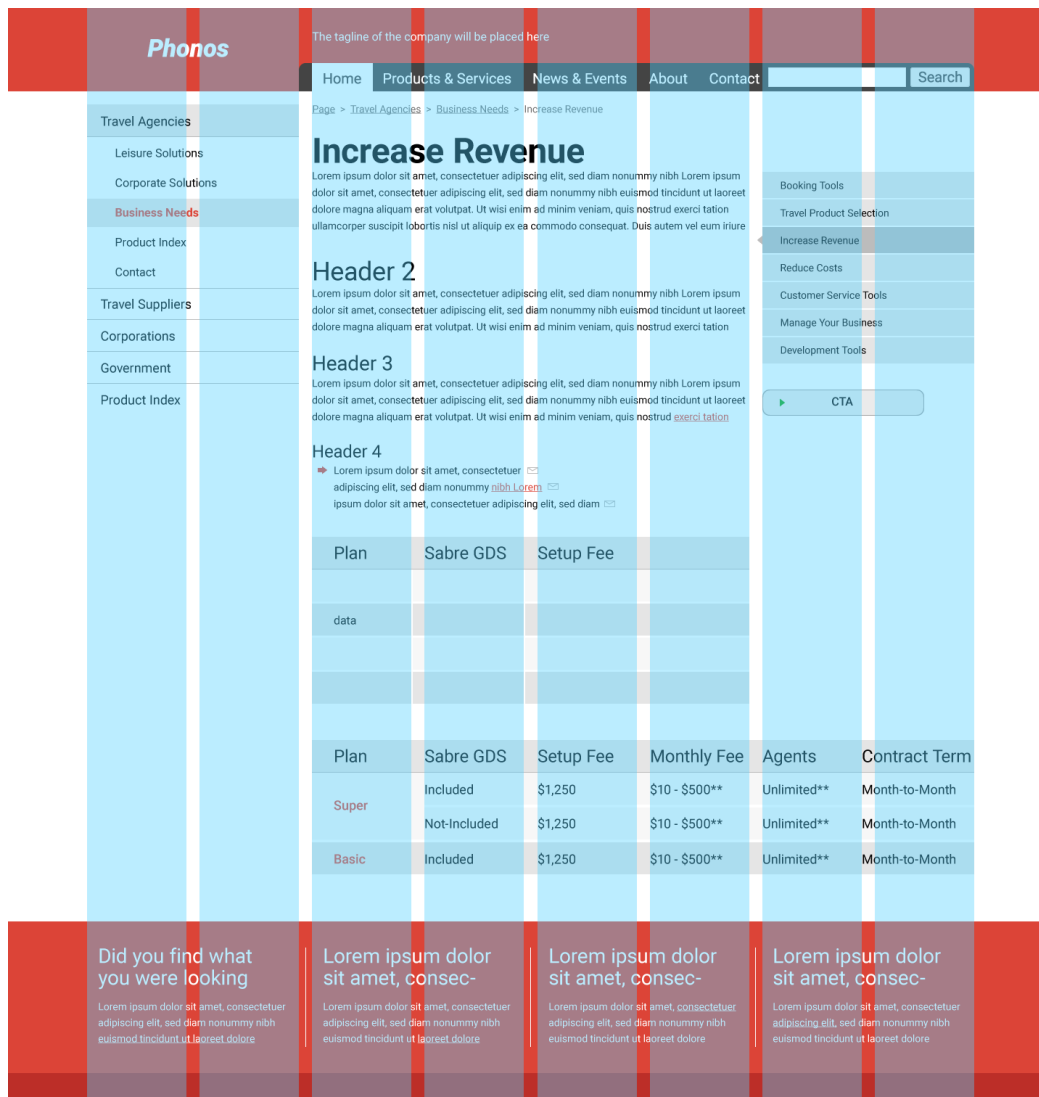

In the first row above, three groups of 4 columns each are combined to create a layout with three larger columns of equal widths. Or 3, 6, and 3 columns could be combined to create another layout with two narrower columns on the right and left, with a wide space in the middle. Or all 12 narrow columns can be combined into one single large column.

As the graphic illustrates, there are many options for making two larger columns of equal size, or radically different sizes. Conceptually, the most important takeaway is in grid-based layouts columns can be bundled together, provided that each row

adds up to the total number of columns in the grid layout — which in this example is twelve.

Example: 8-Column Grid Layout

The following image shows a webpage that uses an 8-column grid system to control the layout. Notice how some elements in this example stretch across the columns, for example, the table at the bottom which spans six (6) columns.

Grid-Layouts Alone are not Responsive

Grid-based layouts do not change across screen widths without the addition of responsive features, like media queries, which will be discussed in this course. However, at this stage of planning it is important to conceptualize how the layout of a website will need to change when it is viewed on a tablet or mobile device. This will be talked about in the next assignment on planning a responsive grid based layout with CSS Flexbox.

Best Practices: Wireframe Your Layout First

Wireframing is a way to plan out the structure of a website layout and can range from simple sketches to complex maps. Wireframes are helpful in defining the basic structure of a page *before* content is added.

This approach is more efficient in the long-term, as wireframes are easier to adapt and change than a fully completed webpage.

Interactive Exercise: Sketch Grid Layouts

Exercise #1

To complete the following exercise, download and print this [template](#). Or, take a blank piece of paper and divide it into 4 columns.

Consider the various ways to combine or group columns together to create different layouts in a 4-column grid structure. Choose one layout idea and sketch it on the piece of paper. Then, explain your answer in the text box below (*e.g. 1 column is used as a sidebar and 3 columns are grouped together as the main content area.*). Hit *Submit* to view a sample response.
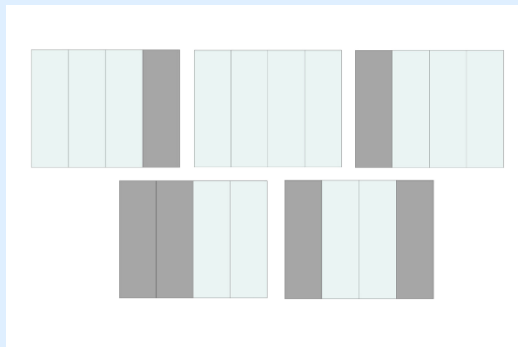
Your response   Edit

Column 1 used as a sidebar and 3 columns are grouped together as the main content area.

Suggested/Sample Response

Here is a list of the most common 4-column layouts. However, you may have come up with a different layout. As long as the total of the columns add up to 4, it is a valid layout.

- 4 columns grouped together
- 1 column on the left, 3 columns on the right
- 3 columns on the left, 1 column on the right
- 2 columns on the left, 2 columns on the right
- 1 column on the left, 2 columns in middle, 1 column on the right

Exercise #2

To complete the following exercises, download and print this [template](#). Or, take a blank piece of paper and divide it into 6 columns.

Consider the various ways to combine or group columns together to create different layouts in a 6-column grid structure. Choose one layout idea and sketch it on the piece of paper. Then, explain your answer in the text box below. Hit *Submit* to view a sample response.
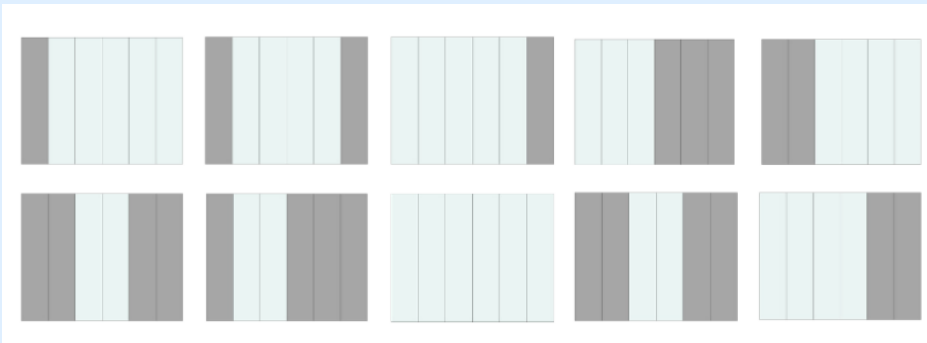
Your response   Edit

Column 1 sidebar

4 columns for main content

6 column sidebar

Suggested/Sample Response

Here is a list of the most common 6-column layouts. However, you may have come up with a different layout. As long as the total of the columns add up to 6, it is a valid layout.

- 6 columns grouped together
- 1 column on the left, 5 columns on the right
- 5 columns on the left, 1 columns on the right
- 2 columns on the left, 4 columns on the right
- 4 columns on the left, 2 columns on the right
- 3 columns on the left, 3 columns on the right
- 1 column on the left, 4 columns in the middle, 1 column on the right
- 2 columns on the left, 3 columns in the middle, 1 column on the right
- 2 columns on the left, 2 columns in the middle, 2 columns on the right
- 1 column on the left, 3 columns in the middle, 2 columns on the right