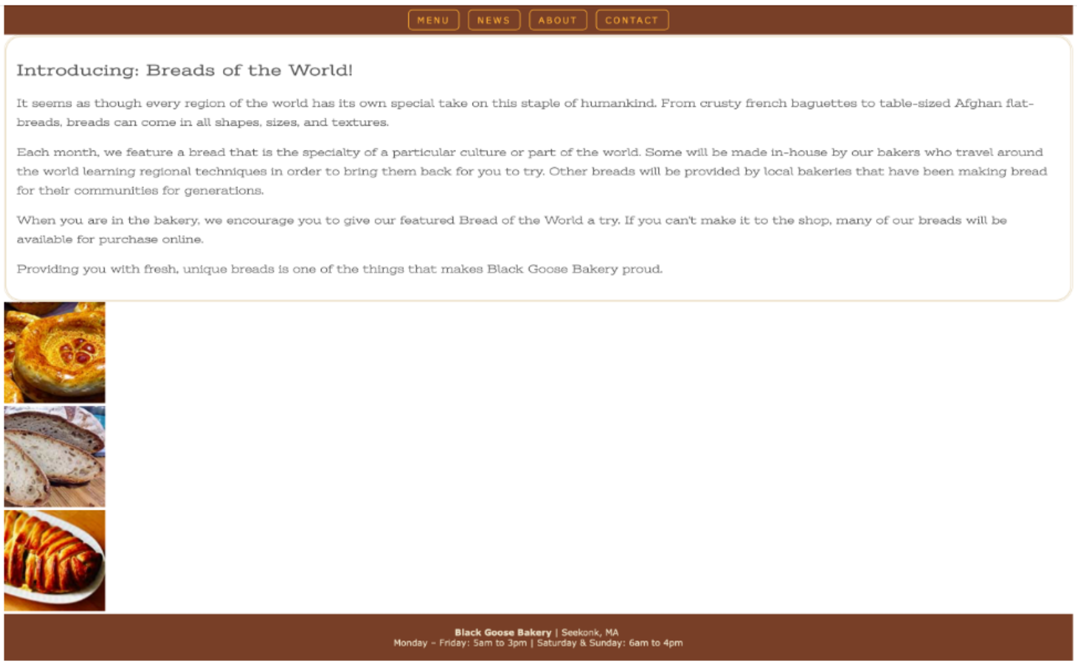
INT102 Lab 12 Grid Layout

1. Unzip the lab12.zip and open the folder in VS code.

Before



Introducing: Breads of the World!

It seems as though every region of the world has its own special take on this staple of humankind. From crusty french baguettes to table-sized Afghan flat-breads, breads can come in all shapes, sizes, and textures.

Each month, we feature a bread that is the specialty of a particular culture or part of the world. Some will be made in-house by our bakers who travel around the world learning regional techniques in order to bring them back for you to try. Other breads will be provided by local bakeries that have been making bread for their communities for generations.

When you are in the bakery, we encourage you to give our featured Bread of the World a try. If you can't make it to the shop, many of our breads will be available for purchase online.

Providing you with fresh, unique breads is one of the things that makes Black Goose Bakery proud.

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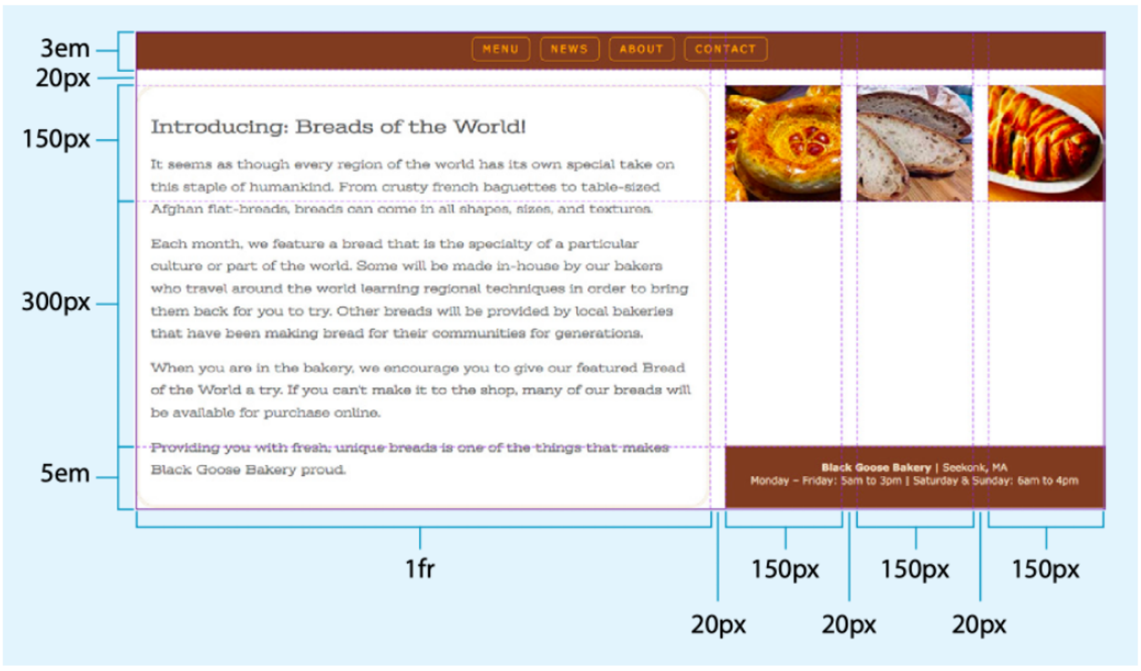
After



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2. Open the grid.html. Start by turning the containing element, the #layout div, into a grid container by setting its display mode to “grid”:

```
#layout {
  . . .
  display: grid;
}
```

3. The “After” picture show the row and column tracks required to accommodate the content in the designed layout. Start by defining the rows as specified in the sketch, using the grid-template-rows property. There should be six values, representing each the six rows.

```
#layout {
  . . .
  display: grid;
  grid-template-rows: 3em 20px 150px 300px 5em ;
}
```

4. Do the same for the seven columns. Because we want the text column to grow and shrink with the available space, we’ve specified its width in fractional unit (1fr). The remaining columns create 150px-wide cells for three images and 20px of space before them.

```
#layout {
  . . .
  display: grid;
  grid-template-rows: 3em 20px 150px 300px 5em ;
  grid-template-columns: 1fr 20px 150px 20px 150px 20px 150px ;
}
```

However, because the last six columns are a repeating pattern, it would be easier to use the repeat( ) function to repeat the spaces and figure columns three times:

```
#layout {
  . . .
  display: grid;
  grid-template-rows: 3em 20px 150px 300px 5em ;
  grid-template-columns: 1fr repeat(3, 20px 150px) ;
}
```

5. Finally, let assign names to the grid lines that border the grid area where the main content element should appear. The names give us some intuitive options for placing that item later. The main area starts at the third row track, so assign the name “main-start” to the grid line between the second and third row track measurements:

```
grid-template-rows: 3em 20px [main-start] 150px 300px 5em
```

The main area extends into the last row track, so assign the name “main-end” to the last grid line in the grid (after the last row track):

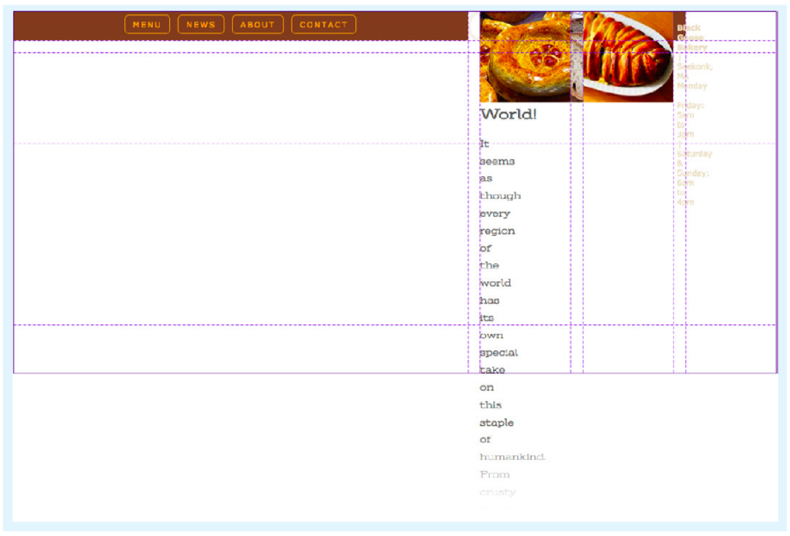
```
grid-template-rows: 3em 20px [main-start] 150px 300px 5em [main-end] ;

#layout {
  margin-left: 5%;
  margin-right: 5%;
  display: grid;
  grid-template-rows: 3em 20px [main-start] 150px 300px 5em [main-end];
  grid-template-columns:  [main-start] 1fr [main-end] repeat(3, 20px 150px);
}
```

6. Now do the same for the grid lines that mark the boundaries of the column track where the main content goes:

```
#layout {
  . . .
  display: grid;
  grid-template-rows: 3em 20px [main-start] 150px 300px 5em [main-end];
  grid-template-columns:  [main-start] 1fr [main-end] repeat(3, 20px 150px);
}
```

7. Save the document and look at it in a browser. Because we haven’t specified where the grid items go, they flowed into the cells sequentially, making the mess as shown in the picture. However, the grid overlay reveals that the structure of the grid looks solid.



World!

It seems as though every region of the world has its own special take on this staple of humankind. From crusty

Placing Items on a grid

8. Let's start by placing the nav element into the first row of the grid, using the four grid line properties:

```
nav {
  grid-row-start: 1;
  grid-row-end: 2;
  grid-column-start: 1;
  grid-column-end: 8; /* you could also use -1 */
}
```

9. Now place the figures in their positions on the grid. Start by putting the third figure (#figC) in its place in the far-right column by using the shorthand grid-row and grid-column properties. It goes between the 3rd and 4th row gid lines and extends from the 7th to 8th column lines.

   For the columns, instead of 7 and 8, use the negative value for the last line and span it one space to the left to get the starting point:

```
#figC {
  grid-row: 3 / 4;
  grid-column: span 1 / -1;
}
```

   Now position the #figA and #figB elements by using the grid area property with line values. Remember that the values go in the order top, left, bottom, right (counterclockwise around the area).

```
#figA {
  grid-area: 3 / 3 / 4 / 4;
}
#figB {
  grid-area: 3 / 5 / 4 / 6;
}
```

10. We gave the grid lines around the main area names, so let’s use them to place the main grid item:

```
main {
  grid-row: main-start / main-end;
  grid-column: main-start / main-end;
}
```

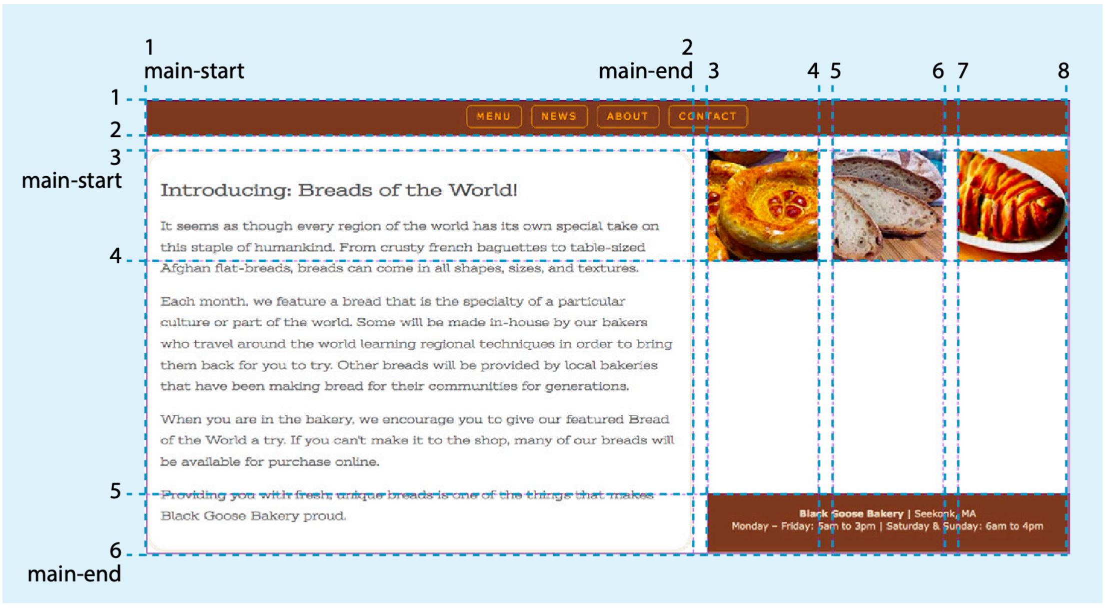
Do you remember that when you name lines around an area *-start and *-end, it creates an implicitly name area *? Because we named the lines according to this syntax, we could also place the main element with grid-area like this:

```
main {
/*  grid-row: main-start / main-end;
  grid-column: main-start / main-end; */
  grid-area: main;
}
```

11. Finally, we can put the footer into its place. It starts at the last row grid line and spans back one track. For columns, it starts at the third line and goes to the last.

```
footer {
  grid-row: 5 / 6;
  grid-column: 3 / -1;
}
```

12. Save the document and look at it in a browser.



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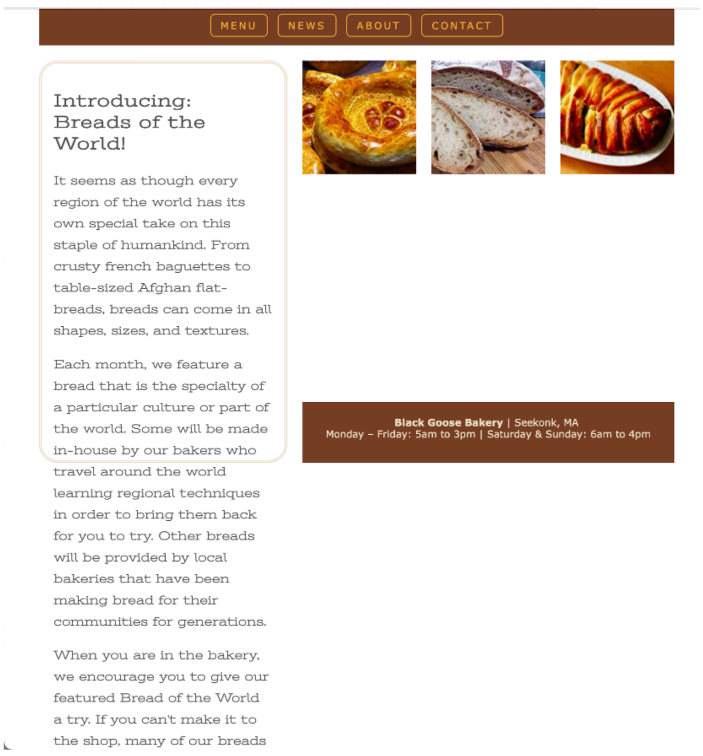
13. When browser is wide, the layout works fine, but when it is made narrower, the text in the main element overflows its cell. That's because the 300-pixel height we gave that row is not sufficient to hold the text when it breaks onto additional lines or is resized larger.



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We can fix that by changing the measurement of the fifth row track to auto. In that way, the height of that row will always be at least big enough to hold the content. The min-content value would work as well, but auto is always the first value to try:

```
#layout {
  margin-left: 5%;
  margin-right: 5%;
  display: grid;
  grid-template-rows: 3em 20px [main-start] 150px auto 5em [main-end];
  grid-template-columns:  [main-start] 1fr [main-end] repeat(3, 20px 150px);
}
```

If you reload the page in the browser, the text is always contained in its grid area, regardless of the width of the window.

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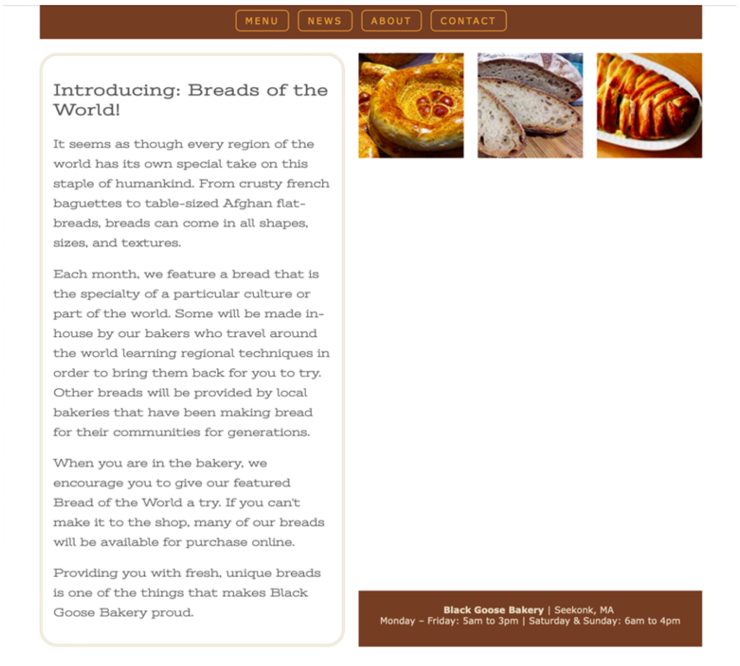

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14. When you finish, rename the bakery-styles.css to xxxxxxxxxxx.css (xxxxxxxxxxx is your student id) and upload the xxxxxxxxxxx.css to LEB2.