

# 22일 (목)

## 1. Codecademy Making a Website Responsive - Learn CSS: Grid

### Lesson 2. Advanced CSS Grid

- [Intro](#)

- `grid-template-areas`
- `justify-items`
- `justify-content`
- `justify-self`
- `align-items`
- `align-content`
- `align-self`
- `grid-auto-rows`
- `grid-auto-columns`
- `grid-auto-flow`

이번 레슨에 배울 프로퍼티들이다.

- Grid Template Areas ( 컨테이너 적용 )

```
1 ▼ .container {
2     display: grid;
3     max-width: 900px;
4     position: relative;
5     margin: auto;
6     grid-gap: 10px;
7     ▼ grid-template-areas: "header header"
8                     "nav nav"
9                     "left right"
10                    "footer footer";
11    grid-template-columns: 200px 400px;
12    grid-template-rows: 150px 200px 600px 200px;
13
14 }
15
```

grid-template-areas 프로퍼티로 위와 같이 그리드 위치를 시각적으로 표현가능하다.

```
21 ▼ header {
22     background-color: dodgerblue;
23     grid-area: header;
24 }
25
26 ▼ nav {
27     background-color: beige;
28     grid-area: nav;
29 }
30
31 ▼ .left {
32     background-color: dodgerblue;
33     grid-area: left;
34 }
35
36 ▼ .right {
37     background-color: beige;
38     grid-area: right;
39 }
40
41 ▼ footer {
42     background-color: dodgerblue;
43     grid-area: footer;
44 }
```

꼭 내부 그리드에 grid-area 프로퍼티로 이름에 맞게 모두 설정을 해줘야 한다.

**Header**

**Nav**

**Left**

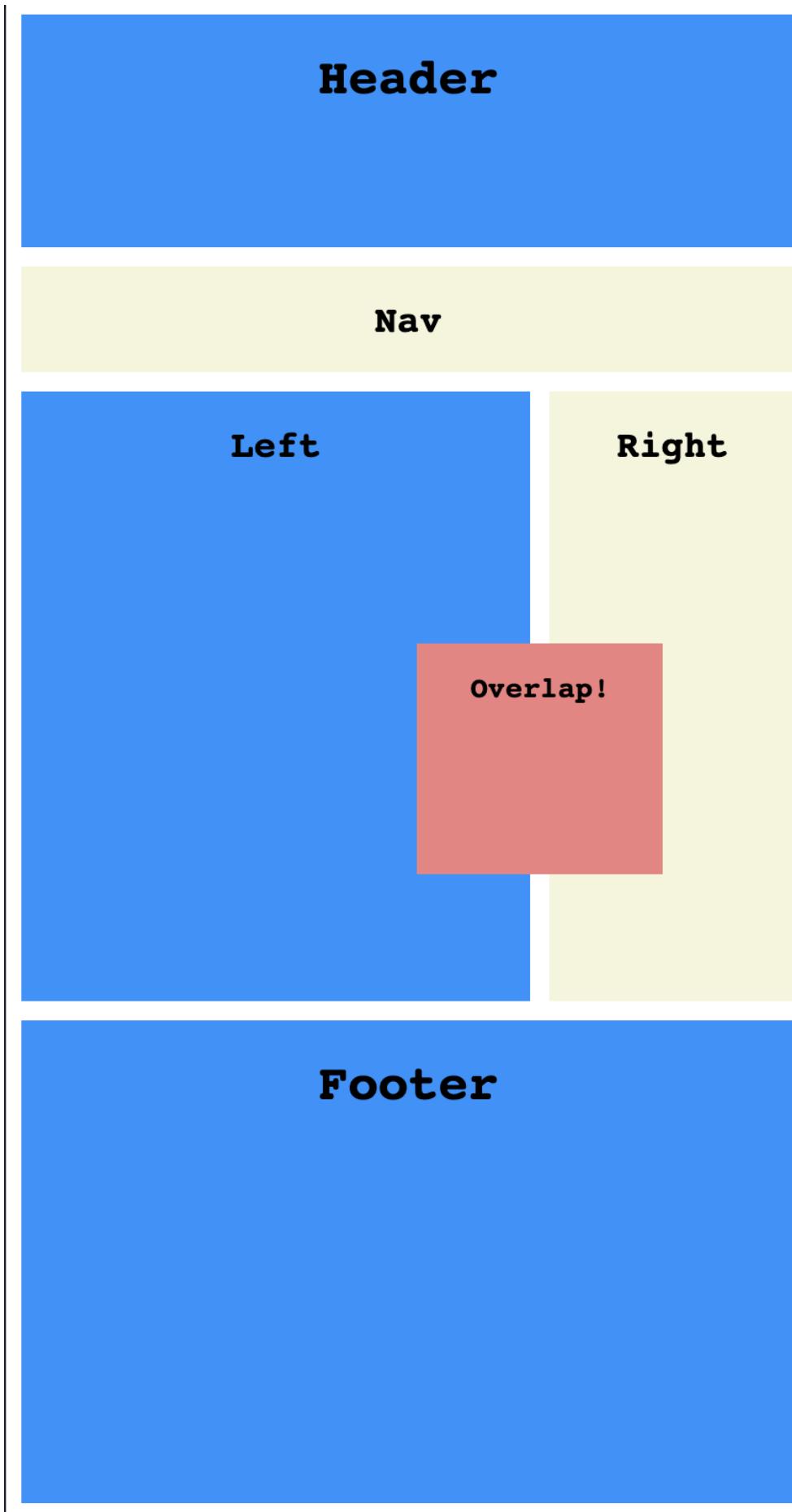
**Right**

**Footer**

- **Overlapping Elements ( 그리드 아이템에 적용 )**

그리드 레이아웃의 또 다른 능력은 요소에 대한 오버랩이 쉽다는 것이다.

grid-area 프로퍼티와 z-index 프로퍼티를 사용하여 겹치는 부분에 대해 우선권을 부여한다.





```
▼ header {
    background-color: dodgerblue;
    grid-area: 1 / 1 / 3 / 7;
}

▼ nav {
    background-color: beige;
    grid-area: 3 / 1 / 4 / 7;
}

▼ .left {
    background-color: dodgerblue;
    grid-area: 4 / 1 / 9 / 5;
}

▼ .right {
    background-color: beige;
    grid-area: 4 / 5 / 9 / 7;
}

▼ .overlap {
    background-color: lightcoral;
    grid-area: 6 / 4 / span 2 / 6;
    z-index: 5;
}

▼ footer {
    background-color: dodgerblue;
    grid-area: 9 / 1 / 13 / 7;|
```

grid-area 와 z-index 를 사용하여 위와 같은 예시를 만들었다.

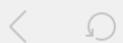
- **Justify Items ( 그리드 컨테이너에 적용 )**

justify-items 프로퍼티는 flexbox 와 같이 row 에서 정렬되는 프로퍼ти이다. 컨테이너 그리드의 내부 그리드를 이동시킨다. 벨류는 start, end, center, stretch 가 있다.

```
<main>
  <div class="card">Card 1</div>
  <div class="card">Card 2</div>
  <div class="card">Card 3</div>
</main>
```

```
main {
  display: grid;
  grid-template-columns: repeat(3,
400px);
  justify-items: center;
}
```

내부 그리드들의 row 축 위치를 변경한다.



http://localhost:8000/



## SAVORY



### CHOCOLATE MOUSSE

⌚ 20 mins

This delicious chocolate mousse will delight dinner guests of all ages!



### SMOKED LAMB WITH RICE

⌚ 120 mins

Want to feel like your favorite relative came over and made you dinner? This comfort meal of smoked lamb and rice will quickly become a weekend favorite!



### GOAT CHEESE SALAD

⌚ 25 mins

In addition to the full flavor of goat cheese, this

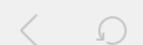


### CHICKEN SANDWICH

⌚ 45 mins

We've packed a lot into this one - shredded

justify-items : start 일 때



http://localhost:8000/



## SAVORY



### CHOCOLATE MOUSSE

⌚ 20 mins

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⌚ 120 mins

Want to feel like your favorite relative came over and made you dinner? This comfort meal of smoked lamb and rice will quickly become a weekend favorite!



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⌚ 25 mins

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⌚ 45 mins

We've packed a lot into this one - shredded

밸류 값이 center 일 때

- **justify-content ( 그리드 컨테이너에 적용 )**

이번에는 컨테이너 그리드 자체를 row 의 양옆으로 움직이는 프로퍼티이다.

밸류는 start, end, center, stretch, space-around, space-between, space-evenly 가 있다.

```
7  ▼ main {  
8      display: grid;  
9      grid-template-columns: 250px 250px;  
10     grid-template-rows: repeat(3, 450px);  
11     grid-gap: 20px;  
12     margin-top: 44px;  
13     justify-items: center;  
14     justify-content: center;|  
15  }  
16
```

## SAVORY



### CHOCOLATE MOUSSE

⌚ 20 mins

This delicious chocolate mousse will delight dinner guests of all ages!



### SMOKED LAMB WITH RICE

⌚ 120 mins

Want to feel like your favorite relative came over and made you dinner? This comfort meal of smoked lamb and rice will quickly become a weekend favorite!



### GOAT CHEESE SALAD

⌚ 25 mins

In addition to the full



### CHICKEN SANDWICH

⌚ 45 mins

We've packed a lot into this one - shredded

justify-content 적용 전

## SAVORY



### CHOCOLATE MOUSSE

⌚ 20 mins

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⌚ 25 mins

In addition to the full



### CHICKEN SANDWICH

⌚ 45 mins

We've packed a lot into this one - shredded

justify-content : center 적용 모습

### • align-items ( 그리드 컨테이너에 적용 )

지금까지 가로로 움직이는 프로퍼티를 배웠다. 이번에는 세로( 위 아래로 ) 움직일 수 있는 프로퍼티를 배워보자.

align-items 는 그리드 아이템을 각 그리드 내(즉, 해당 row 안에서만)에서 수직적으로 이동시키는 프로퍼티이다. 밸류로는 start, end, center, stretch 가 있다.

만약 내부 그리드 박스에 height 를 정하면 align-items: stretch 를 해도 그리드 박스들이 stretch 되지 않는다.

```
<main>
  <div class="card">Card 1</div>
  <div class="card">Card 2</div>
  <div class="card">Card 3</div>
</main>
```

```
main {
  display: grid;
  grid-template-rows: repeat(3,
400px);
  align-items: center;
}
```

```
▼ main {  
    display: grid;  
    grid-template-columns: 250px 250px;  
    grid-template-rows: repeat(3, 450px);  
    grid-gap: 20px;  
    margin-top: 44px;  
    justify-items: center;  
    justify-content: center;  
    /* align-items: start;  
    /* align-items: end; */  
    /* align-items: center; */  
    /* align-items: stretch; */  
}
```

# SAVORY



## CHOCOLATE MOUSSE

⌚ 20 mins

This delicious chocolate mousse will delight dinner guests of all ages!



## SMOKED LAMB WITH RICE

⌚ 120 mins

Want to feel like your favorite relative came over and made you dinner? This comfort meal of smoked lamb and rice will quickly become a weekend favorite!



## GOAT CHEESE SALAD

⌚ 25 mins

In addition to the full flavor of goat cheese, this



## CHICKEN SANDWICH

⌚ 45 mins

We've packed a lot into this one - shredded

위 코드 , align-items 를 아무것도 적용하지 않은 모습

# SAVORY



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⌚ 20 mins

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## SMOKED LAMB WITH RICE

⌚ 120 mins

Want to feel like your favorite relative came over and made you dinner? This comfort meal of smoked lamb and rice will quickly become a weekend favorite!



## GOAT CHEESE SALAD

⌚ 25 mins

In addition to the full



## CHICKEN SANDWICH

⌚ 45 mins

We've packed a lot into

align-items : start 적용 모습

# SAVORY



## CHOCOLATE MOUSSE

⌚ 20 mins

This delicious chocolate mousse will delight dinner guests of all ages!



## SMOKED LAMB WITH RICE

⌚ 120 mins

Want to feel like your favorite relative came over and made you dinner? This comfort meal of smoked lamb and rice will quickly become a weekend favorite!



## GOAT CHEESE SALAD



## CHICKEN SANDWICH

⌚ 45 mins

align-items : end 적용 모습

# SAVORY



## CHOCOLATE MOUSSE

⌚ 20 mins

This delicious chocolate mousse will delight dinner guests of all ages!



## SMOKED LAMB WITH RICE

⌚ 120 mins

Want to feel like your favorite relative came over and made you dinner? This comfort meal of smoked lamb and rice will quickly become a weekend favorite!



## GOAT CHEESE SALAD

⌚ 25 mins



## CHICKEN SANDWICH

⌚ 45 mins

Wolve peeked a lot into

align-items : center 적용 모습

# SAVORY



## CHOCOLATE MOUSSE

⌚ 20 mins

This delicious chocolate mousse will delight dinner guests of all ages!



## SMOKED LAMB WITH RICE

⌚ 120 mins

Want to feel like your favorite relative came over and made you dinner? This comfort meal of smoked lamb and rice will quickly become a weekend favorite!



## GOAT CHEESE SALAD

⌚ 25 mins

In addition to the full



## CHICKEN SANDWICH

⌚ 45 mins

We've packed a lot into

align-items : stretch 적용 모습 ( 내부 그리드에 높이를 지정하면 스트렌치 되지 않는다!! ) 주의!!

- **align-content ( 그리드 컨테이너에 적용 )**

해당 row 안에서만 수직적으로 움직이지 않고 컨테이너 자체를 수직적으로 움직일 수 있는 프로퍼티이다. 이 또한 justify-content 와 같은 밸류를 갖는다. ( start, end, center, stretch, space-around, space-between, space-evenly)

```
<main>
  <div class="top">Top</div>
  <div class="bottom">Bottom</div>
</main>
```

```
main {
  display: grid;
  height: 600px;
  grid-template-rows: 200px 200px;
  grid-template-areas: "top"
                      "bottom";
  align-content: center;
}
```

컨테이너는 600px 의 높이를 갖는다. 2개의 row 만 지정하고 높이는 지정하지 않았다. 높이는 200px 이 남으며 가장 위 아래에 100px 씩 나뉘어진다.

# SAVORY



## CHOCOLATE MOUSSE

⌚ 20 mins

This delicious chocolate mousse will delight dinner guests of all ages!



## SMOKED LAMB WITH RICE

⌚ 120 mins

Want to feel like your favorite relative came over and made you dinner? This comfort meal of smoked lamb and rice will quickly become a weekend favorite!



## GOAT CHEESE SALAD

⌚ 25 mins

In addition to the full



## CHICKEN SANDWICH

⌚ 45 mins

We've packed a lot into this one - shredded

PICKLES, and a toasted sesame bun will leave you thoroughly satisfied!



### SWEET CHURROS

⌚ 90 mins

Making this classic summer treat at home will remind you of a childhood spent in the park.



### BERRY PARFAIT

⌚ 10 mins

This low-calorie, vitamin-packed parfait is great for breakfast, dessert, or post-workout!

## SAVORY

높이를 1600px로 지정한다. → 아래 부분에 남는 부분이 생김

```
1 ▼ main {  
2     display: grid;  
3     grid-template-columns: 250px 250px;  
4     grid-template-rows: repeat(3, 450px);  
5     grid-gap: 20px;  
6     margin-top: 44px;  
7     justify-items: center;  
8     justify-content: center;  
9     align-items: stretch;  
10    height: 1600px;  
11    align-content: center;  
12 }  
13 }
```

그리드 컨테이너에 align-content : center 추가

# SAVORY



## CHOCOLATE MOUSSE

⌚ 20 mins

This delicious chocolate mousse will delight dinner guests of all ages!



## SMOKED LAMB WITH RICE

⌚ 120 mins

Want to feel like your favorite relative came over and made you dinner? This comfort meal of smoked lamb and rice will quickly become a weekend favorite!



In addition to the full flavor of goat cheese, this salad includes kale, avocado, and farro to balance it out.

We've packed a lot into this one - shredded cabbage, caramelized onions, deep-fried chicken, chipotle mayo, half-sour pickles, and a toasted sesame bun will leave you thoroughly satisfied!



### SWEET CHURROS

⌚ 90 mins

Making this classic summer treat at home will remind you of a childhood spent in the park.



### BERRY PARFAIT

⌚ 10 mins

This low-calorie, vitamin-packed parfait is great for breakfast, dessert, or post-workout!

## SAVORY

- **justify-self and align-self ( 그리드 아이템에 적용 )**

내부 그리드 중 하나의 그리드만 옮기기 위해서 위 프로퍼티를 사용할 수 있다. 이는 justify-items , align-items 를 덮어씌워 적용시킨다.

밸류는 start, end, center, stretch 가 있다.

```
▼ .a {  
    align-self: end;  
}  
  
▼ .c {  
    justify-self: start;  
}
```



## CHOCOLATE MOUSSE

⌚ 20 mins

This delicious chocolate mousse will delight dinner guests of all ages!



## SMOKED LAMB WITH RICE

⌚ 120 mins

Want to feel like your favorite relative came over and made you dinner? This comfort meal of smoked lamb and rice will quickly become a weekend favorite!



## GOAT CHEESE SALAD

⌚ 25 mins

Photo by: [Lauranewell](https://unsplash.com/@lauranewell)



## CHICKEN SANDWICH

⌚ 45 mins

We've packed a lot into

각각 self 를 적용한 모습

- **Implicit vs Explicit Grid**

우리는 지금까지 explicitly(명확하게) grid 를 정의해왔다. 하지만 쇼핑몰과 같이 그리드가 얼마나 추가될 지 모르는 상황일 땐 어떻게 해야할까? 그럴경우 implicit grid(디폴트 행위)를 써야한다.

explicit grid 를 쓰면 그리드가 초과할 수 있다.

- **Grid Auto Rows and Grid Auto Columns ( 그리드 컨테이너에 적용 )**

grid-auto-rows, grid-auto-columns 를 사용하자.

이러한 프로퍼티는 기존에 explicit 의 그리드의 단위를 받는다. 즉 ( px, %, fr, repeat( ) 등 )

```
<body>
  <div>Part 1</div>
  <div>Part 2</div>
  <div>Part 3</div>
  <div>Part 4</div>
  <div>Part 5</div>
</body>
```

```
body {
  display: grid;
  grid: repeat(2, 100px) / repeat(2,
150px);
  grid-auto-rows: 50px;
}
```

part 4 부터 그리드가 50px 높이로 추가 될 것이다. 만약 grid-auto-rows 를 적용하지 않는다면, 그리드가 추가되고 높이가 재조정될 것이다. 이렇게 되면 화면이 의도대로 보이지 않을 것이다.

height 을 지정하면 안된다!!! ( 자동으로 늘어나게 해야함)

- **Grid Auto Flow**

implicitly-added rows and columns 를 설정할 수 있을 뿐만 아니라, 추가되는 그리드가 렌더링되는 순서 또한 지정할 수 있다.

grid-auto-flow 는 새로운 그리드가 row 또는 column 으로 추가될 지 특정 지을 수 있다. 또한 이는 그리드 컨테이너에 지정해야한다.

grid-auto-flow 는 3가지 밸류를 갖는다.

(row , column , dense) row 는 디플트 값으로 하나의 로우 왼쪽에서부터 오른쪽까지 순서대로 채워나가며, column은 그리드의 오른쪽 사이드에서 부터 위에서부터 아래로 채워나가는 형식이다. dense 는 row 나 column 과 함께 쓰일 수 있다. dense는 만약 더 작은 요소가 추가된다면 레이아웃의 구멍을 채우는 알고리즘을 실행한다.

```
▼ main {  
    display: grid;  
    grid-template-columns: 250px 250px;  
    grid-template-rows: repeat(3, 450px);  
    grid-gap: 20px;  
    margin-top: 44px;  
    justify-items: center;  
    justify-content: center;  
    align-items: stretch;  
    align-content: center;  
    grid-auto-rows: 500px;  
    grid-auto-flow: column;  
}  
}
```

## SAVORY



### CHOCOLATE MOUSSE

⌚ 20 mins

This delicious chocolate mousse will delight dinner guests of all ages!



### CHICKEN SANDWICH

⌚ 45 mins

We've packed a lot into this one - shredded cabbage, caramelized onions, deep-fried chicken, chipotle mayo, half-sour pickles, and a toasted sesame bun will leave you thoroughly satisfied!



### SWEET CHURROS

⌚ 90 mins

Making this classic summer treat at home will remind you of a childhood spent in the park.



### SMOKED LAMB WITH RICE

⌚ 120 mins

Want to feel like your



### SWEET CHURROS

⌚ 90 mins



### BERRY PARFAIT

⌚ 10 mins

This low-calorie, vitamin-

다음과 같이 오른쪽부터 컬럼 형식으로 새로운 그리드를 채워나간다.

Imagine we have a grid with the following CSS properties, with 4 boxes inside of it. If we added a fifth box to the HTML, what width would it have?

```
.grid {  
  grid-template-rows: repeat(2, 50px);  
  grid-template-columns: repeat(2, 100px);  
  grid-auto-rows: 60px;  
  grid-auto-columns: 70px;  
}
```

0px

50px

70px

The new box will still be in one of the explicitly defined columns, which are 100px each.

100px

60px

틀린 문제

Which `justify-content` value would you use to have an even amount of space between the grid items, with half-sized spaces on the far ends?

`space-evenly`

`space-evenly` puts a full space at each end.

`stretch`

`center`

`space-between`

`space-around`

## Article 1. A Complete Guide to CSS Grid

<https://css-tricks.com/snippets/css/complete-guide-grid/>

## Article 2. Things I've Learned About CSS Grid Layout

<https://www.codecademy.com/paths/front-end-engineer-career-path/tracks/fecp-making-a-website-responsive/modules/fecp-learn-css-grid/articles/fecp-external-things-ive-learned-about-css-grid-layout>

### 오늘의 단어

- implicit : 은연중에 내포된, 함축된, ( $\leftrightarrow$  explicit) ; 절대적인, 맹목적인
- explicit : 명백한, 명확한, 잘 알 수 있는
- counterpart : 상대, 대응 관계에 있는 것(사람)
- encompass: 포함하다, 망라하다 ; 둘러싸다 포위하다.