

## Flexbox Common Patterns

Use the following HTML code and base CSS:

HTML:

```
<!DOCTYPE html>
<html lang="en">
  <head>
    <link rel="stylesheet" href="css/base.css">
    <link rel="stylesheet" href="css/styles2.css" />
    <meta charset="UTF-8" />
    <meta http-equiv="X-UA-Compatible" content="IE=edge" />
    <meta name="viewport" content="width=device-width, initial-scale=1.0" />
    <title>Document</title>
  </head>
  <body>
    <div class="container">
      <div class="item item1"></div>
      <div class="item item2"></div>
      <div class="item item3"></div>
      <div class="item item4"></div>
      <div class="item item5"></div>
      <div class="item item6"></div>
      <div class="item item7"></div>
      <div class="item item8"></div>
      <div class="item item9"></div>
      <div class="item item10"></div>
    </div>
  </body>
</html>
```

Base.CSS:

```
* {
  box-sizing: border-box;
}

body {
  background-color: white;
  margin: 0px 50px 50px;
}

.item {
  border-radius: 15px;
  font-size: 2em;
```

```
background-color: #87b5ff;
}

.container {
  display: flex;
  background-color: #aaa;
  padding: 20px;
  margin-top: 30px;
}
```

Stretch all:

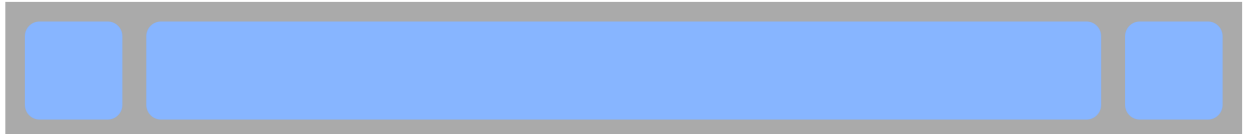


Styles1.css:

```
.item {
  flex-grow: 1;
  height: 100px;
}

.item + .item {
  margin-left: 2%;
}
```

Stretch middle:



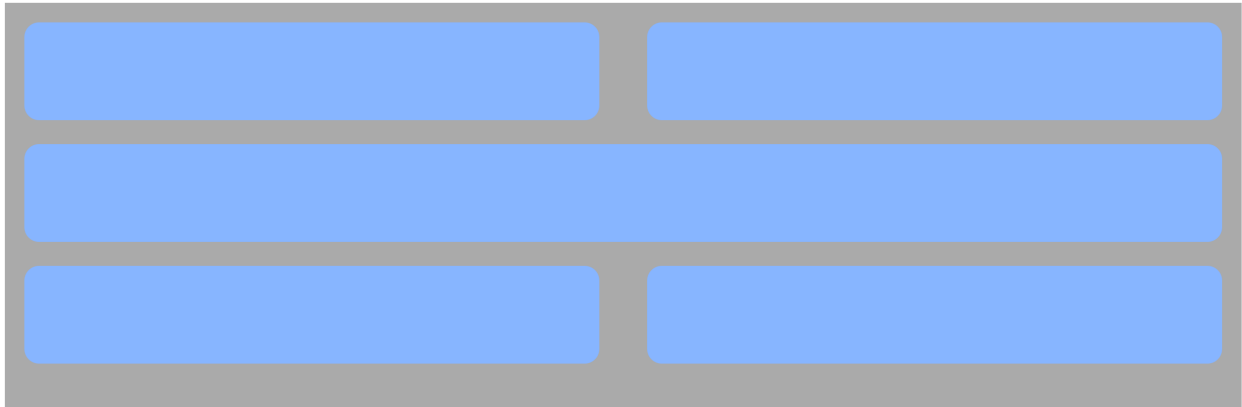
Styles2.css:

```
.item {
  height: 100px;
  width: 100px; /* A fixed width as the default */
}

.item2 {
  flex-grow: 1; /* Set the middle element to grow and stretch */
}
```

```
.item + .item {  
  margin-left: 2%;  
}
```

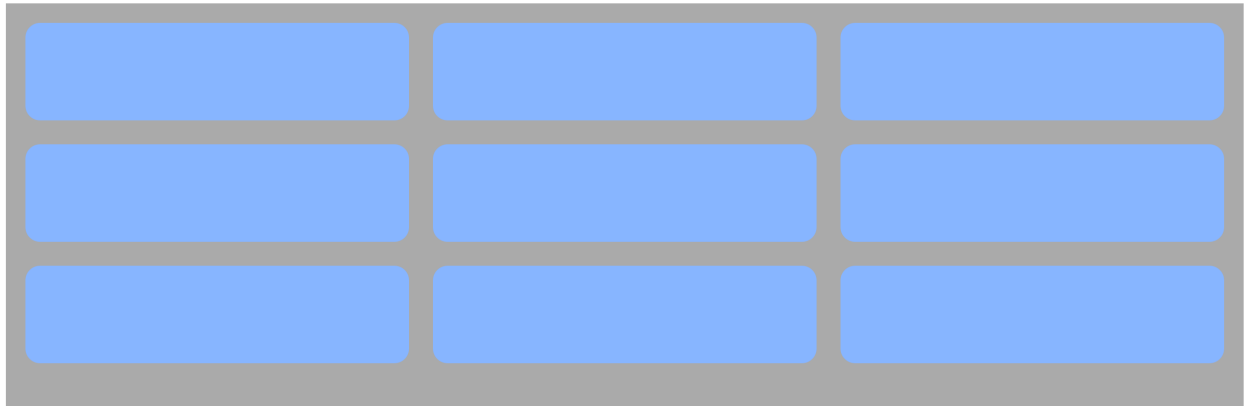
Alternating Grid:



Styles.css

```
.container {  
  display: flex;  
  flex-wrap: wrap;  
  justify-content: space-between;  
}  
  
.item {  
  width: 48%;  
  height: 100px;  
  margin-bottom: 2%;  
}  
  
.item:nth-child(3n) {  
  width: 100%;  
}
```

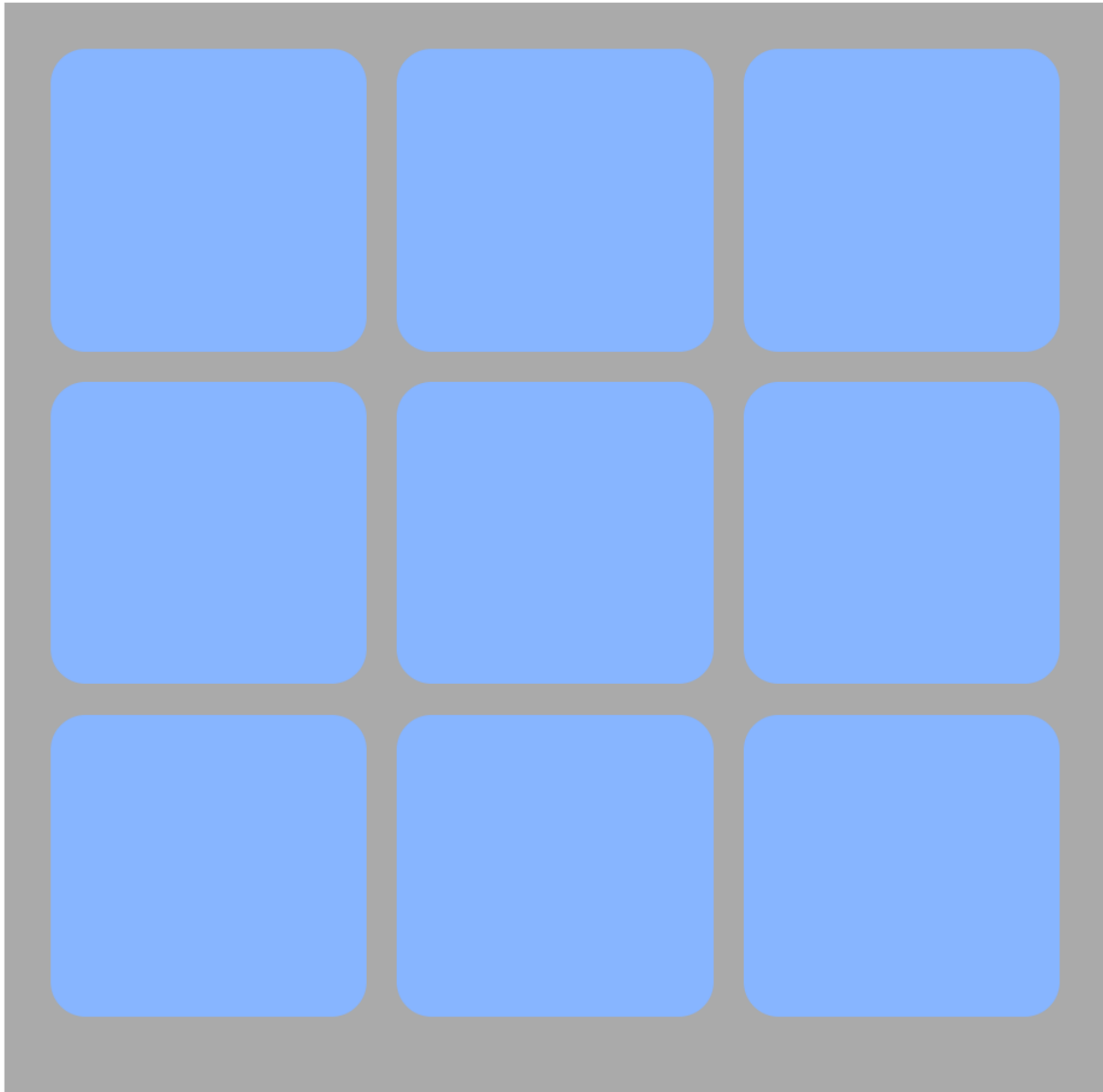
3X3 Grid



Styles4.css

```
.container {  
  display: flex;  
  flex-wrap: wrap;  
  justify-content: space-between;  
}  
  
.item {  
  flex: 0 32%;  
  height: 100px;  
  margin-bottom: 2%; /* (100-32*3)/2 */  
}
```

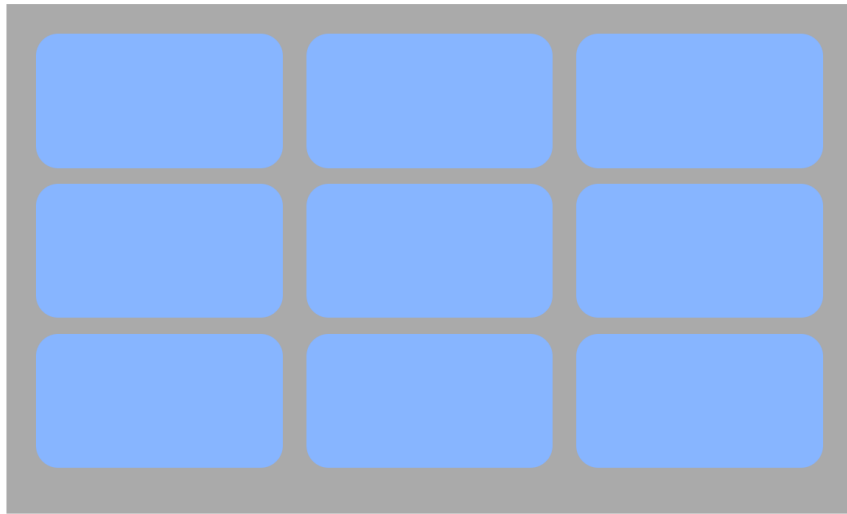
3x3 grid, constrained proportions (1:1)



Styles5.css

```
.container {  
  display: flex;  
  flex-wrap: wrap;  
  justify-content: space-between;  
  gap: 3%;  
}  
  
.item {  
  flex: 30%;  
  padding-bottom: 30%; /* Same as width, sets height */  
  margin-bottom: 3%; /* same as gap */  
}
```

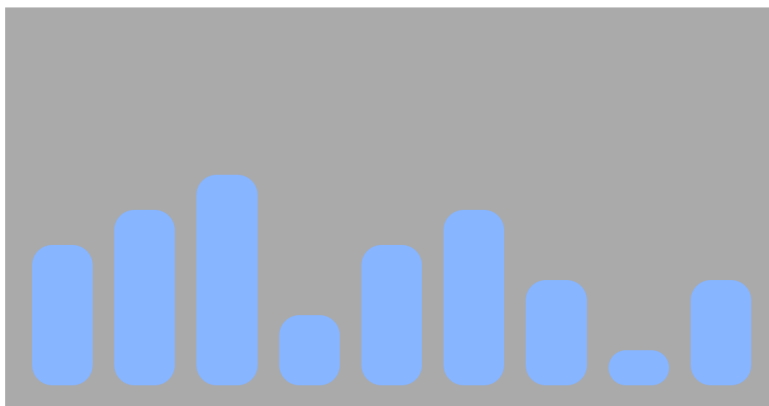
3x3 grid, constrained proportions (16:9)



Styles6.css

```
.container {  
  display: flex;  
  flex-wrap: wrap;  
  justify-content: space-between;  
  gap: 3%;  
}  
  
.item {  
  flex: 30%;  
  padding-bottom: 17%; /* Same as width, sets height 30:17, i.e. 16:9 */  
  margin-bottom: 2%; /* same as gap */  
}
```

Graph: vertical bars



Styles7.css

```
.container {  
  display: flex;  
  height: 300px;  
  justify-content: space-between;  
  align-items: flex-end;  
  gap: 3%;  
}  
  
.item { width: 20%; }  
.item1 { height: 40%; }  
.item2 { height: 50%; }  
.item3 { height: 60%; }  
.item4 { height: 20%; }  
.item5 { height: 40%; }  
.item6 { height: 50%; }  
.item7 { height: 30%; }  
.item8 { height: 10%; }  
.item9 { height: 30%; }
```

Graph: horizontal bars



Styles8.css

```
.container {  
  display: flex;
```

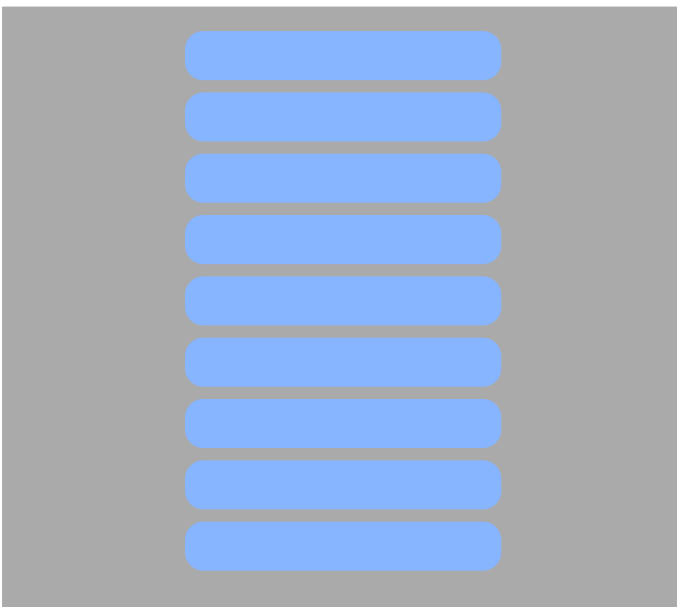
```

height: 300px;
justify-content: space-between;
flex-direction: column;
gap: 3%;
}

.item { height: 14%; }
.item1 { width: 40%; }
.item2 { width: 50%; }
.item3 { width: 60%; }
.item4 { width: 20%; }
.item5 { width: 40%; }
.item6 { width: 50%; }
.item7 { width: 30%; }
.item8 { width: 10%; }
.item9 { width: 30%; }

```

Vertical stack (centered)



Styles9.css

```

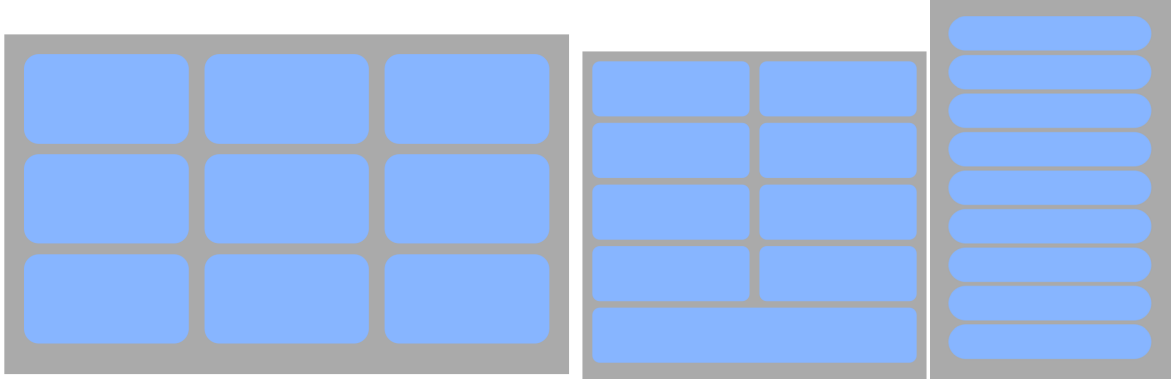
.container {
  display: flex;
  /* height: 300px; */
  flex-direction: column;
  align-items: center;
  gap: 3%;
}

```



```
.item {
  height: 40px;
  width: 50%;
  margin-bottom: 10px;
}
```

Responsive 1

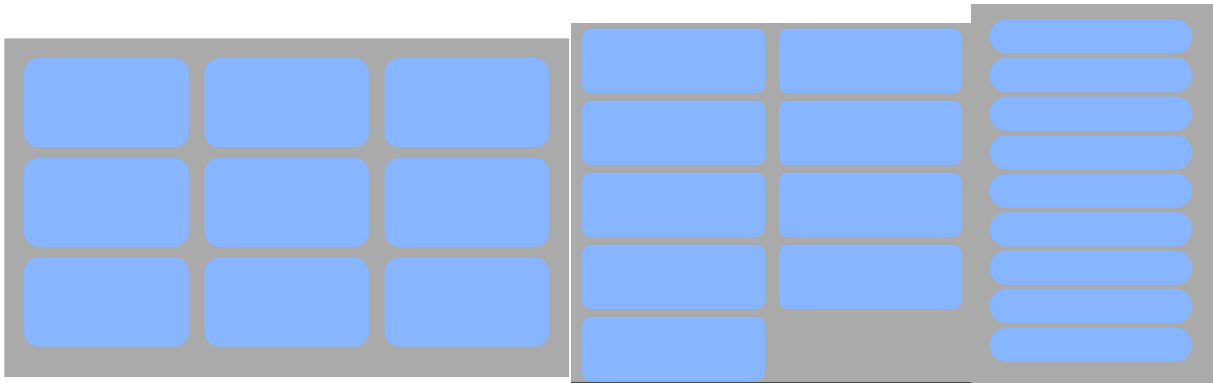


Style10.css

```
.container {
  flex-wrap: wrap;
  justify-content: space-between;
  gap: 3%;
}

.item {
  flex: 1 1 300px;
  /* width: 300px; */
  padding-bottom: 17%; /* Same as width, sets height 30:17, i.e. 16:9 */
  margin-bottom: 2%; /* same as gap */
  position: relative;
}
```

## Responsive 2



## Styles10.css

```
.container {
  flex-wrap: wrap;
  justify-content: space-between;
  gap: 3%;
}

.item {
  /* flex: 1 1 300px; */
  width: 300px;
  padding-bottom: 17%; /* Same as width, sets height 30:17, i.e. 16:9 */
  margin-bottom: 2%; /* same as gap */
  position: relative;
}
```