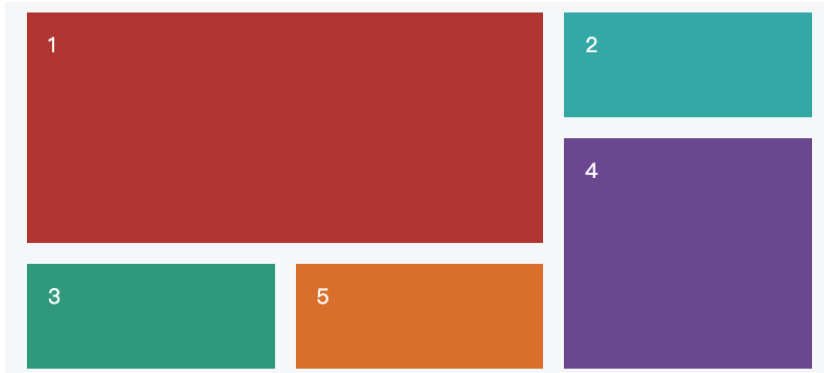


Grid布局

一.概述

grid将网页划分成一个个网格，可以任意组合不同的网格，做出各种各样的布局。



二、基本概念

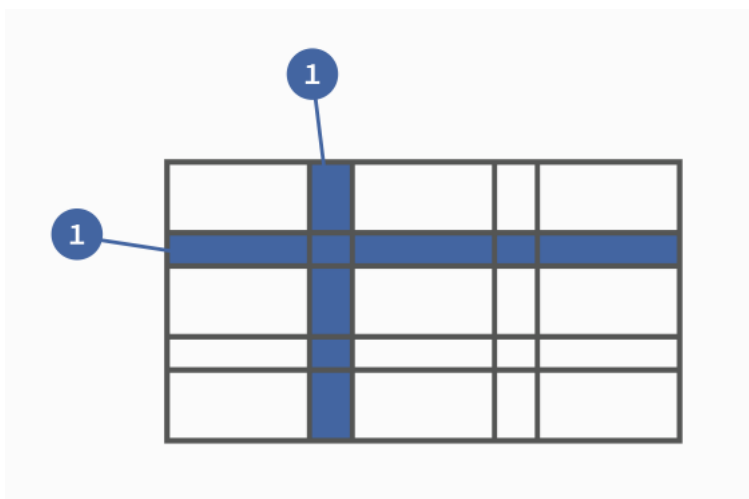
2.1.容器和项目

采用网格布局的区域，称为"容器"（container）。容器内部采用网格定位的子元素，称为"项目"（item）。

```
1 <div style="display:grid">
2   <div><p>1</p></div>
3   <div><p>2</p></div>
4   <div><p>3</p></div>
5 </div>
6 // 上面代码中，最外层的<div>元素就是容器，内层的三个<div>元素就是项目。
7 // 注意：项目只能是容器的顶层子元素，不包含项目的子元素，比如上面代码的<p>元素就不是项目。Grid 布局只对项目生效。
```

2.2 行和列

容器里面的水平区域称为"行"（row），垂直区域称为"列"（column）。



2.3 单元格

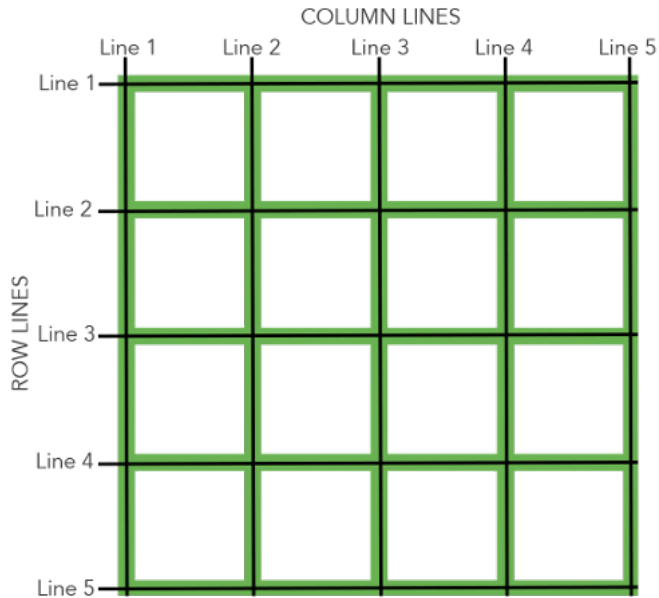
行和列的交叉区域，称为"单元格"（cell）。

正常情况下，n行和m列会产生n x m个单元格。比如，3行3列会产生9个单元格。

2.4 网格线

划分网格的线，称为“网格线”（grid line）。水平网格线划分出行，垂直网格线划分出列。正常情况下，n行有n + 1根水平网格线，m列有m + 1根垂直网格线，比如三行就有四根水平网格线。

下图是一个 4 x 4 的网格，共有5根水平网格线和5根垂直网格线。



三、基础展示代码

公共CSS

```
1 span {  
2     font-size: 2em;  
3 }  
4 .item {  
5     font-size: 2em;  
6     text-align: center;  
7     border: 1px solid #e5e4e9;  
8 }  
9 .item-1 {  
10     background-color: #ef342a;  
11 }  
12 .item-2 {  
13     background-color: #f68f26;  
14 }  
15 .item-3 {  
16     background-color: #4ba946;  
17 }  
18 .item-4 {  
19     background-color: #0376c2;  
20 }  
21 .item-5 {  
22     background-color: #c077af;  
23 }
```

```

24 .item-6 {
25     background-color: #f8d29d;
26 }
27 .item-7 {
28     background-color: #b5a87f;
29 }
30 .item-8 {
31     background-color: #d0e4a9;
32 }
33 .item-9 {
34     background-color: #4dc7ec;
35 }

```

例子 (1) 普通值

```

1  <!DOCTYPE html>
2  <html lang="en">
3  <head>
4      <meta charset="UTF-8">
5      <title>Title</title>
6      <link rel="stylesheet" href="css.css">
7      <style>
8          #container {
9              display: grid;
10             /*display: inline-grid;*/
11             grid-template-columns: 50px 50px 50px;
12             grid-template-rows: 50px 50px 50px;
13         }
14     </style>
15 </head>
16 <body>
17
18 <span>foo</span>
19
20 <div id="container">
21     <div class="item item-1">1</div>
22     <div class="item item-2">2</div>
23     <div class="item item-3">3</div>
24     <div class="item item-4">4</div>
25     <div class="item item-5">5</div>
26     <div class="item item-6">6</div>
27     <div class="item item-7">7</div>
28     <div class="item item-8">8</div>
29     <div class="item item-9">9</div>
30 </div>
31
32 <span>bar</span>
33
34 </body>
35 </html>

```

例子 (2) 不等值

```

1  <!DOCTYPE html>
2  <html lang="en">

```

```

3 <head>
4   <meta charset="UTF-8">
5   <title>Title</title>
6   <link rel="stylesheet" href="css.css">
7   <style>
8     #container {
9       display: grid;
10      grid-template-columns: 50px 50px 50px;
11      grid-template-rows: 50px 100px 200px;
12    }
13  </style>
14 </head>
15 <body>
16
17 <span>foo</span>
18
19 <div id="container">
20   <div class="item item-1">1</div>
21   <div class="item item-2">2</div>
22   <div class="item item-3">3</div>
23   <div class="item item-4">4</div>
24   <div class="item item-5">5</div>
25   <div class="item item-6">6</div>
26   <div class="item item-7">7</div>
27   <div class="item item-8">8</div>
28   <div class="item item-9">9</div>
29 </div>
30
31 <span>bar</span>
32
33 </body>
34 </html>

```

例子 (3) 缺失值

```

1 <!DOCTYPE html>
2 <html lang="en">
3 <head>
4   <meta charset="UTF-8">
5   <title>Title</title>
6   <link rel="stylesheet" href="css.css">
7   <style>
8     #container {
9       display: grid;
10      grid-template-columns: 50px 100px;
11      grid-template-rows: 100px 100px 200px;
12    }
13  </style>
14 </head>
15 <body>
16
17 <span>foo</span>
18
19 <div id="container">
20   <div class="item item-1">1</div>

```

```

21     <div class="item item-2">2</div>
22     <div class="item item-3">3</div>
23     <div class="item item-4">4</div>
24     <div class="item item-5">5</div>
25     <div class="item item-6">6</div>
26     <div class="item item-7">7</div>
27     <div class="item item-8">8</div>
28     <div class="item item-9">9</div>
29     <div class="item item-9">10</div>
30     <div class="item item-9">11</div>
31     <div class="item item-9">12</div>
32     <div class="item item-9">13</div>
33     <div class="item item-9">14</div>
34     <div class="item item-9">15</div>
35     <div class="item item-9">16</div>
36 </div>
37
38 <span>bar</span>
39
40 </body>
41 </html>

```

例子 (4) 百分比

```

1  <!DOCTYPE html>
2  <html lang="en">
3  <head>
4      <meta charset="UTF-8">
5      <title>Title</title>
6      <link rel="stylesheet" href="css.css">
7      <style>
8          #container {
9              width: 500px;
10             height: 500px;
11             display: grid;
12             grid-template-columns: 33.33% 33.33% 33.33%;
13             grid-template-rows: 33.33% 33.33% 33.33%;
14         }
15     </style>
16 </head>
17 <body>
18
19 <span>foo</span>
20
21 <div id="container">
22     <div class="item item-1">1</div>
23     <div class="item item-2">2</div>
24     <div class="item item-3">3</div>
25     <div class="item item-4">4</div>
26     <div class="item item-5">5</div>
27     <div class="item item-6">6</div>
28     <div class="item item-7">7</div>
29     <div class="item item-8">8</div>
30     <div class="item item-9">9</div>
31 </div>

```

```
32
33 <span>bar</span>
34
35 </body>
36 </html>
```

例子 (5) repeat-1

```
1 <!DOCTYPE html>
2 <html lang="en">
3 <head>
4   <meta charset="UTF-8">
5   <title>Title</title>
6   <link rel="stylesheet" href="css.css">
7   <style>
8     #container {
9       width: 300px;
10      height: 300px;
11      display: grid;
12      grid-template-columns: repeat(3, 33.33%);
13      grid-template-rows: repeat(3, 33.33%);
14    }
15  </style>
16 </head>
17 <body>
18
19 <span>foo</span>
20
21 <div id="container">
22   <div class="item item-1">1</div>
23   <div class="item item-2">2</div>
24   <div class="item item-3">3</div>
25   <div class="item item-4">4</div>
26   <div class="item item-5">5</div>
27   <div class="item item-6">6</div>
28   <div class="item item-7">7</div>
29   <div class="item item-8">8</div>
30   <div class="item item-9">9</div>
31 </div>
32
33 <span>bar</span>
34
35 </body>
36 </html>
```

例子 (6) repeat-2

```
1 <!DOCTYPE html>
2 <html lang="en">
3 <head>
4   <meta charset="UTF-8">
5   <title>Title</title>
6   <link rel="stylesheet" href="css.css">
7   <style>
8     #container {
```

```

9         display: grid;
10         grid-template-columns: repeat(2, 80px 100px 120px);
11         grid-template-rows: repeat(2, 80px 100px 120px);
12     }
13 </style>
14 </head>
15 <body>
16
17 <span>foo</span>
18
19 <div id="container">
20     <div class="item item-1">1</div>
21     <div class="item item-2">2</div>
22     <div class="item item-3">3</div>
23     <div class="item item-4">4</div>
24     <div class="item item-5">5</div>
25     <div class="item item-6">6</div>
26     <div class="item item-7">7</div>
27     <div class="item item-8">8</div>
28     <div class="item item-9">9</div>
29 </div>
30
31 <span>bar</span>
32
33 </body>
34 </html>

```

例子 (7) auto-fill

```

1 <!DOCTYPE html>
2 <html lang="en">
3 <head>
4     <meta charset="UTF-8">
5     <title>Title</title>
6 </head>
7 <body><!DOCTYPE html>
8 <html lang="en">
9 <head>
10     <meta charset="UTF-8">
11     <title>Title</title>
12     <link rel="stylesheet" href="css.css">
13     <style>
14         #container {
15             width: 200px;
16             height: 800px;
17             display: grid;
18             grid-template-columns: repeat(auto-fill, 80px);
19         }
20     </style>
21 </head>
22 <body>
23
24 <span>foo</span>
25
26 <div id="container">

```

```

27     <div class="item item-1">1</div>
28     <div class="item item-2">2</div>
29     <div class="item item-3">3</div>
30     <div class="item item-4">4</div>
31     <div class="item item-5">5</div>
32     <div class="item item-6">6</div>
33     <div class="item item-7">7</div>
34     <div class="item item-8">8</div>
35     <div class="item item-9">9</div>
36 </div>
37
38 <span>bar</span>
39
40 </body>
41 </html>
42
43 </body>
44 </html>

```

例子 (8) fr-1

```

1  <!DOCTYPE html>
2  <html lang="en">
3  <head>
4      <meta charset="UTF-8">
5      <title>Title</title>
6  </head>
7  <body><!DOCTYPE html>
8  <html lang="en">
9  <head>
10     <meta charset="UTF-8">
11     <title>Title</title>
12     <link rel="stylesheet" href="css.css">
13     <style>
14         #container {
15             width: 600px;
16             display: grid;
17             /*grid-template-columns: 1fr 1fr;*/
18             /*grid-template-columns: 1fr 3fr;*/
19             grid-template-columns: 1fr 2fr 1fr;
20         }
21     </style>
22 </head>
23 <body>
24
25 <span>foo</span>
26
27 <div id="container">
28     <div class="item item-1">1</div>
29     <div class="item item-2">2</div>
30     <div class="item item-3">3</div>
31     <div class="item item-4">4</div>
32     <div class="item item-5">5</div>
33     <div class="item item-6">6</div>
34     <div class="item item-7">7</div>

```



```

35     <div class="item item-8">8</div>
36     <div class="item item-9">9</div>
37 </div>
38
39 <span>bar</span>
40
41 </body>
42 </html>
43
44 </body>
45 </html>

```

例子 (9) fr-2

```

1  <!DOCTYPE html>
2  <html lang="en">
3  <head>
4      <meta charset="UTF-8">
5      <title>Title</title>
6  </head>
7  <body><!DOCTYPE html>
8  <html lang="en">
9  <head>
10     <meta charset="UTF-8">
11     <title>Title</title>
12     <link rel="stylesheet" href="css.css">
13     <style>
14         #container {
15             width: 1100px;
16             display: grid;
17             grid-template-columns: 1fr 2fr 100px 1fr;
18         }
19     </style>
20 </head>
21 <body>
22
23 <span>foo</span>
24
25 <div id="container">
26     <div class="item item-1">1</div>
27     <div class="item item-2">2</div>
28     <div class="item item-3">3</div>
29     <div class="item item-4">4</div>
30     <div class="item item-5">5</div>
31     <div class="item item-6">6</div>
32     <div class="item item-7">7</div>
33     <div class="item item-8">8</div>
34     <div class="item item-9">9</div>
35 </div>
36
37 <span>bar</span>
38
39 </body>
40 </html>
41

```

```
42 </body>
43 </html>
```

例子 (10) minmax

```
1 <!DOCTYPE html>
2 <html lang="en">
3 <head>
4   <meta charset="UTF-8">
5   <title>Title</title>
6 </head>
7 <body><!DOCTYPE html>
8 <html lang="en">
9 <head>
10   <meta charset="UTF-8">
11   <title>Title</title>
12   <link rel="stylesheet" href="css.css">
13   <style>
14     #container {
15       width: 1000px;
16       display: grid;
17       grid-template-columns: 1fr 1fr minmax(100px, 1fr) minmax(100px, 1fr);
18     }
19   </style>
20 </head>
21 <body>
22
23 <span>foo</span>
24
25 <div id="container">
26   <div class="item item-1">1</div>
27   <div class="item item-2">2</div>
28   <div class="item item-3">3</div>
29   <div class="item item-4">4</div>
30   <div class="item item-5">5</div>
31   <div class="item item-6">6</div>
32   <div class="item item-7">7</div>
33   <div class="item item-8">8</div>
34   <div class="item item-9">9</div>
35 </div>
36
37 <span>bar</span>
38
39 </body>
40 </html>
41
42 </body>
43 </html>
```

例子 (11) auto

```
1 <!DOCTYPE html>
2 <html lang="en">
3 <head>
4   <meta charset="UTF-8">
```

```

5     <title>Title</title>
6 </head>
7 <body><!DOCTYPE html>
8 <html lang="en">
9 <head>
10     <meta charset="UTF-8">
11     <title>Title</title>
12     <link rel="stylesheet" href="css.css">
13     <style>
14         #container {
15             width: 1000px;
16             display: grid;
17             grid-template-columns: 1fr auto 1fr;
18         }
19     </style>
20 </head>
21 <body>
22
23 <span>foo</span>
24
25 <div id="container">
26     <div class="item item-1">1</div>
27     <div class="item item-2">2</div>
28     <div class="item item-3">3</div>
29     <div class="item item-4">4</div>
30     <div class="item item-5">5</div>
31     <div class="item item-6">6</div>
32     <div class="item item-7">7</div>
33     <div class="item item-8">8</div>
34     <div class="item item-9">9</div>
35 </div>
36
37 <span>bar</span>
38
39 </body>
40 </html>
41
42 </body>
43 </html>

```

例子 (12) 网格线的名称

```

1 <!DOCTYPE html>
2 <html lang="en">
3 <head>
4     <meta charset="UTF-8">
5     <title>Title</title>
6 </head>
7 <body><!DOCTYPE html>
8 <html lang="en">
9 <head>
10     <meta charset="UTF-8">
11     <title>Title</title>
12     <link rel="stylesheet" href="css.css">
13     <style>

```

```

14     #container {
15         display: grid;
16         grid-template-columns: [c1] 100px [c2] 100px [c3] 100px [c4];
17         grid-template-rows: [r1] 100px [r2] 100px [r3] 100px [r4];
18     }
19     </style>
20 </head>
21 <body>
22
23 <span>foo</span>
24
25 <div id="container">
26     <div class="item item-1">1</div>
27     <div class="item item-2">2</div>
28     <div class="item item-3">3</div>
29     <div class="item item-4">4</div>
30     <div class="item item-5">5</div>
31     <div class="item item-6">6</div>
32     <div class="item item-7">7</div>
33     <div class="item item-8">8</div>
34     <div class="item item-9">9</div>
35 </div>
36
37 <span>bar</span>
38
39 </body>
40 </html>
41
42 </body>
43 </html>

```

例子 (13) 布局实例

```

1 <!DOCTYPE html>
2 <html lang="en">
3 <head>
4     <meta charset="UTF-8">
5     <title>Title</title>
6 </head>
7 <body><!DOCTYPE html>
8 <html lang="en">
9 <head>
10     <meta charset="UTF-8">
11     <title>Title</title>
12     <link rel="stylesheet" href="css.css">
13     <style>
14         #container {
15             width: 600px;
16             height: 300px;
17             display: grid;
18             grid-template-columns: 2fr 1fr;
19         }
20
21         #container .a {
22             display: grid;

```

```
23     grid-template-rows: 2fr 1fr;
24 }
25
26 #container .b {
27     display: grid;
28     grid-template-rows: 1fr 2fr;
29 }
30
31 #container .c {
32     display: grid;
33     grid-template-columns: 1fr 1fr;
34 }
35 </style>
36 </head>
37 <body>
38
39 <div id="container">
40     <div class="a">
41         <div class="item item-1">1</div>
42         <div class="c">
43             <div class="item item-2">3</div>
44             <div class="item item-3">4</div>
45         </div>
46     </div>
47     <div class="b">
48         <div class="item item-4">2</div>
49         <div class="item item-5">5</div>
50     </div>
51 </div>
52
53 </body>
54
55 </html>
56 </body>
57 </html>
```