

report2

布局与定位

姓名	学号	班级	实验时间
张晓琳	423109071102	计科2班	2025-11-11

实验环境说明

- 操作系统: Windows 11
- 浏览器: Chrome 142.0
- 编辑器: VS Code

实验过程描述

流体布局 (float + clear)

操作步骤简述:

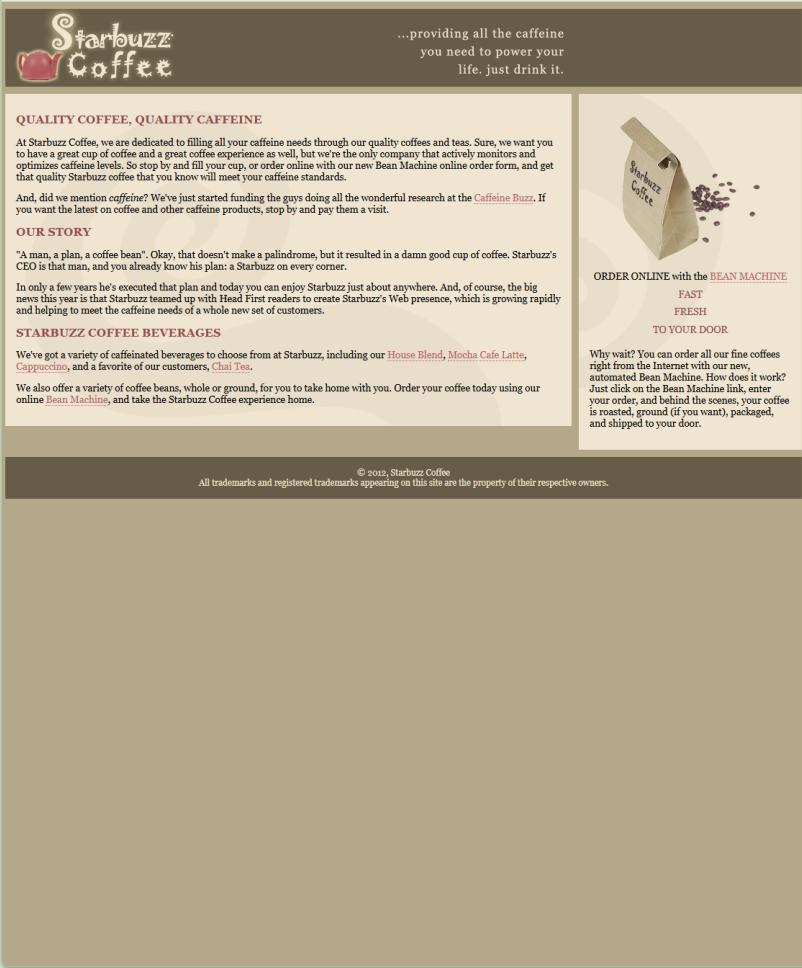
首先将 `<div id="sidebar">` 移动到 `<div id="header">` 下方，然后为 `sidebar` 设置 `width: 280px` 和 `float: right` 属性，使侧边栏向右浮动。接着为 `main` 区域设置 `margin-right: 330px`，为 `footer` 设置 `clear: right` 清除浮动。

预期效果与实际效果:

预期侧边栏会浮动在右侧，主内容环绕其左侧，页脚清除浮动位于底部。实际效果符合预期，实现了经典的两栏流体布局，主内容区域会自适应剩余空间。

遇到的问题与解决方法:

最初忘记为 `footer` 设置 `clear` 属性，导致页脚上浮到侧边栏旁边。通过添加 `clear: right` 成功解决。



The screenshot shows a web browser window with the Starbuzz Coffee website. The page has a fixed width of 800px. It features a header at the top, a sidebar on the left containing a bean heading and a bean machine link, and a main content area on the right with a bean machine advertisement. The footer at the bottom contains copyright information.

```

starbuzz > index.html > ...
2   <html>
3     <body>
4
5       <div id="header">
6         
7       </div>
8
9       <div id="sidebar" >
10      <p class="beanheading">
11        
12        <br>
13        ORDER ONLINE
14        with the
15        <a href="form.html">BEAN MACHINE</a>
16      </p>
17
18
19
20
21
starbuzz.css >
starbuzz > starbuzz.css > #allcontent
15  #header {
16    background-color: #675c47;
17    margin: 10px;
18    height: 108px;
19  }
20
21  #main {
22    background: #efe5d0 url(images/background.gif) top left;
23    font-size: 105%;
24    padding: 15px;
25    margin: 0px 330px 10px 10px;
26  }
27
28  #sidebar {
29    background: #efe5d0 url(images/background.gif) bottom right;
30    font-size: 105%;
31    padding: 15px;
32    margin: 0px 10px 10px 10px;
33    width: 280px;
34    float: right;
35  }
36
37  #footer {
38    background-color: #675c47;
39    color: #efe5d0;
40    text-align: center;
41    padding: 15px;
42    margin: 10px;
43    font-size: 90%;
44    clear: right;
45  }

```

Ln 8, Col 13 Spaces: 2 UTF-8 CRLF {} CSS ✓ Prettier

冻结布局 (fixed width container)

操作步骤简述：

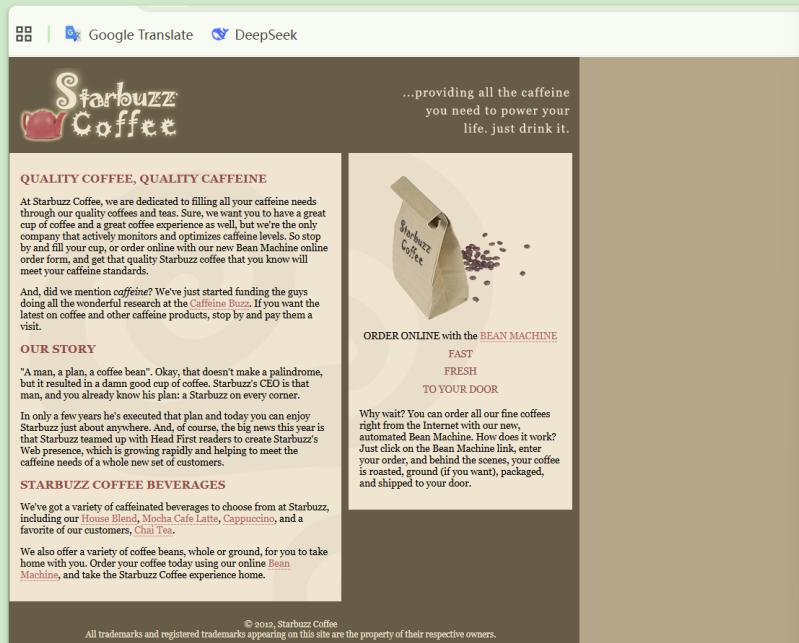
添加新的 `<div id="allcontent">` 容器包裹所有内容，为其设置固定宽度 `width: 800px` 和内边距，并设置背景色。

预期效果与实际效果：

预期整个内容区域会被固定为 `800px` 宽度，不再随浏览器窗口大小变化。实际效果良好，页面在窄窗口中会出现水平滚动条，布局更加稳定。

遇到的问题与解决方法：

无显著问题，实现过程较为直接。



The screenshot shows a web browser displaying the Starbuzz Coffee website. The header features the Starbuzz Coffee logo and the slogan "...providing all the caffeine you need to power your life. just drink it.". Below the header is a sidebar with sections for "OUR STORY" and "STARBUZZ COFFEE BEVERAGES". The main content area contains a large image of a coffee bag labeled "Starbuzz Coffee" with coffee beans spilling out. Text below the image encourages users to "ORDER ONLINE with the BEAN MACHINE FAST FRESH TO YOUR DOOR". A note explains the Bean Machine's functionality. At the bottom of the page, there is a copyright notice for 2012 and a disclaimer about trademarks.

starbuzz > index.html > html > body > div#allcontent > div#header > img

```
2 <html>
3   <head>
4     <link rel="stylesheet" type="text/css" href="starbuzz.css" />
5   </head>
6
7   <body>
8     <div id="allcontent">
9       <div id="header">
10         
11       </div>
12
13       <div id="sidebar" >
14         <p class="beanheading">
15           
16         </p>
17       </div>
18     </div>
19   </body>
```

starbuzz > starbuzz.css > body

```
6 }
7
8 #allcontent{
9   width:800px;
10  padding-top:5px;
11  padding-bottom:5px;
12  background-color: #675c47;
13 }
14
15 #header {
16  background-color: #675c47;
17  margin: 10px;
18  height: 108px;
19 }
```

Ln 12, Col 35 Spaces: 2 UTF-8 CRLF {} HTML ✘ Prettier

14:25 2025/11/11

凝胶布局 (margin auto)

操作步骤简述：

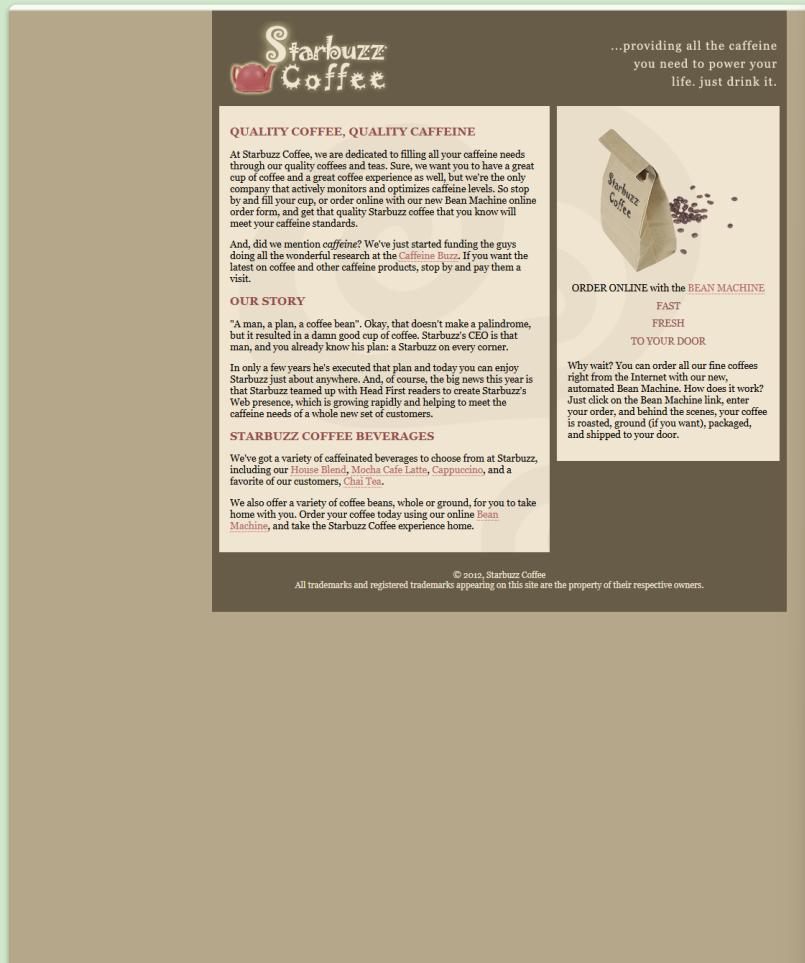
在冻结布局的基础上，为**allcontent**容器添加 `margin-left: auto` 和 `margin-right: auto`，使其水平居中。

预期效果与实际效果：

预期固定宽度的容器会在浏览器中水平居中显示。实际效果完美，页面在大屏显示器中居中显示，提升了视觉体验。

遇到的问题与解决方法：

无问题，这是实现水平居中的标准方法。



```
2 <html>
3   <head>
4
5
6
7   <body>
8     <div id="allcontent">
9       <div id="header">
10         
11       </div>
12     </div>
13   </body>
14 </html>
```

starbuzz.css

```
1 body {
2 }
3
4 #allcontent{
5   width:800px;
6   padding-top:5px;
7   padding-bottom:5px;
8   background-color: #675c47;
9   margin-left:auto;
10  margin-right:auto;
11 }
12
13 #header {
14   background-color: #675c47;
15   margin: 10px;
16   height: 108px;
17 }
18
19 #main {
20   background: #efe5d0 url(images/background.gif) top left;
21   font-size: 105%;
22   padding: 15px;
23 }
```

Ln 11, Col 26 Spaces: 2 UTF-8 CRLF () HTML ✎ Prettier

15°C 晴朗

搜索 hp 火狐 chrome 谷歌

14:33 2025/11/11

绝对定位布局 (position: absolute)

操作步骤简述：

将页面恢复到初始状态，为**sidebar**设置 position: absolute、 top: 100px、 right: 200px 和 width: 280px。

预期效果与实际效果：

预期侧边栏会脱离文档流，固定在距离顶部100px、右侧200px的位置。实际效果符合预期，但注意到绝对定位元素不会影响其他元素的布局。

遇到的问题与解决方法：

发现主内容区域与侧边栏有重叠，这是绝对定位的固有特性，需要通过调整其他元素的外边距来解决。

Google Translate DeepSeek

Starbuzz Coffee

...providing all the caffeine you need to power your life. just drink it.

QUALITY COFFEE, QUALITY CAFFEINE

At Starbuzz Coffee, we are dedicated to filling all your caffeine needs through our quality coffees and teas. Sure, we want you to have a great coffee that actively monitors and optimizes caffeine levels. So stop by and fill your cup, or order online with our new Bean Machine online order standards.

And, did we mention caffeine? We've just started funding the guys doing all the wonderful research at the [Caffeine Buzz](#). If you want the

OUR STORY

"A man, a plan, a coffee bean". Okay, that doesn't make a palindrome, but it resulted in a damn good cup of coffee. Starbuzz's CEO is that

In only a few years he's executed that plan and today you can enjoy Starbuzz just about anywhere. And, of course, the big news this year is presence, which is growing rapidly and helping to meet the caffeine needs of a whole new set of customers.

STARBUZZ COFFEE BEVERAGES

We've got a variety of caffeinated beverages to choose from at Starbuzz, including our [House Blend](#), [Mocha Cafe Latte](#), [Cappuccino](#), and a

We also offer a variety of coffee beans, whole or ground, for you to take home with you. Order your coffee today using our online [Bean Ma](#).

Why wait? You can order all our fine coffees right from the Internet with our new automated Bean Machine. How does it work? Just click on the Bean Machine link, enter your order, and behind the scenes, your coffee is roasted, ground (if you want), packaged, and shipped to your door.

© 2012, Starbuzz Coffee
All trademarks and registered trademarks appearing on this site are the property of t

starbuzz > starbuzz.css > #sidebar

```

14 #main {
17   padding: 15px;
18   margin: 0px 10px 10px 10px;
19 }
20
21 #sidebar {
22   background: #ebe5d0 url(images/background.gif) 105%;
23   font-size: 15px;
24   padding: 15px;
25   margin: 0px 10px 10px 10px;
26   position: absolute;
27   top: 100px;
28   right: 200px;
29   width: 280px;
30 }

31
32 #footer {
33   background-color: #675c47;
34   color: #ebe5d0;
35   text-align: center;
36   padding: 15px;
37   margin: 10px;
38   font-size: 90%;
39 }

40
41 h1 {
42   font-size: 120%;
43   color: #954b4b;
44 }

45
46 .slogan { color: #954b4b; }

47
48 .beanheading {
49   text-align: center;

```

Ln 29, Col 27 Spaces: 2 UTF-8 CRLF {} CSS 2025/11/11 14:39

CSS 表格显示布局 (display: table, table-row, table-cell)

操作步骤简述：

添加**tableContainer**和**tableRow**两个新的

容器，分别设置 `display: table` 和 `display: table-row`。然后将 **main**和**sidebar**设置为 `display: table-cell`，去掉外边距，添加 `vertical-align: top`。

预期效果与实际效果：

预期两个栏目会像表格单元格一样等高排列。实际效果很好，两个栏目自动等高，布局整齐美观。

遇到的问题与解决方法：

最初忘记设置 vertical-align: top，导致内容基线对齐不美观。添加该属性后问题解决。

The screenshot shows a web browser window with the Starbuzz Coffee website loaded. On the left is the website's content, featuring the logo, a slogan, and sections for coffee quality, story, and beverages. On the right is the CSS code for the main section of the page.

```
starbuzz > starbuzz.css > #main
8  #header {
10    margin: 10px;
11    height: 108px;
12 }
13
14 #tableContainer{
15   display:table;
16   border-spacing: 10px;
17 }
18
19 #tableRow{
20   display: table-row;
21 }
22
23 #main {
24   background: #efe5d0 url(images/background.gif)
25   font-size: 105%;
26   padding: 15px;
27   display: table-cell;
28   vertical-align: top;
29 }
30
31 #sidebar {
32   background: #efe5d0 url(images/background.gif)
33   font-size: 105%;
34   padding: 15px;
35   display: table-cell;
36   vertical-align: top;
37 }
38
39 #footer {
40   background-color: #675c47;
41   color: #efe5d0;
```

The CSS code uses the `display: table` and `display: table-cell` properties to create a grid-like layout for the main content area. The `vertical-align: top` property is applied to both the main content and the sidebar to ensure they align at the top, resulting in a clean, aligned appearance.

Flex 布局 (display: flex)

操作步骤简述：

添加**container**容器包裹**main**和**sidebar**，设置 `display: flex` 和 `flex-direction: row`。然后为**main**设置 `flex: 2 1 200px`，**sidebar**设置 `flex: 1 0.5 100px`。

预期效果与实际效果：

预期两个栏目会按1:2的比例排列，具有灵活的伸缩性。实际效果优秀，布局响应性好，在不同屏幕尺寸下都能保持良好的比例关系。

遇到的问题与解决方法：

初次设置**flex**属性时对三个参数理解不够，通过查阅文档明确了**flex-grow**、**flex-shrink**和**flex-basis**的含义。

The screenshot shows a web browser window with the Starbuzz Coffee website open. The page features a brown header with the Starbuzz logo and a slogan: "...providing all the caffeine you need to power your life. just drink it.". Below the header is a section titled "QUALITY COFFEE, QUALITY CAFFEINE" with a paragraph about their commitment to quality. A central image shows a bag of Starbuzz coffee beans with the text "ORDER ONLINE with the BEAN MACHINE FAST FRESH TO YOUR DOOR". To the left, there's a "OUR STORY" section with a short anecdote, and a "STARBUZZ COFFEE BEVERAGES" section listing various coffee options. At the bottom, there's a copyright notice and a link to the Bean Machine. On the right side of the browser window, the developer tools are open, showing the HTML structure and the CSS file "starbuzz.css". The CSS code uses Flexbox to layout the main content area, with styles for the container, main content, and sidebar.

```

starbuzz > index.html > html > body > div#footer > br
2   1>
9   ody>
13
14   <div id="container">
15 >   <div id="main"> ...
60   </div>
61
62 >   <div id="sidebar"> ...
82   </div>
83   </div>

starbuzz.css X
starbuzz > starbuzz.css > ...
13
14   #container{
15     display:flex;
16     flex-direction:row;
17   }
18
19   #main {
20     background: #ebe5d0 url(images/background.gif)
21     font-size: 105%;
22     padding: 15px;
23     margin: 0px 10px 10px 10px;
24     flex: 2 1 200px;
25   }
26
27   #sidebar {
28     background: #ebe5d0 url(images/background.gif)
29     font-size: 105%;
30     padding: 15px;
31     margin: 0px 10px 10px 10px;
32     flex: 1 0.5 100px;

```

总结与感想

通过本次实验，我对CSS布局技术有了更深入的理解。每种布局方式都有其独特的优势和适用场景：流体布局适合需要自适应的页面，冻结和凝胶布局提供更稳定的视觉体验，绝对定位适合需要精确定位的元素，CSS表格显示能轻松实现等高布局，而Flex布局则是现代响应式设计的首选。

在实际开发中，我会根据具体需求选择合适的布局方式。对于简单的两栏布局，`float`仍是不错的选择；对于需要精确控制的布局，绝对定位很有用；而对于复杂的多栏响应式布局，**Flexbox**和**Grid**是更好的选择。特别是**Flex**布局，它的灵活性和强大的对齐能力让我印象深刻，已经成为现代网页布局的核心技术。

这次实验让我认识到，掌握多种布局技术并理解其原理至关重要。在实际项目中，往往需要结合使用多种技术才能达到最佳效果。同时，浏览器的开发者工具在调试布局问题时发挥了巨大作用，能够实时查看和修改样式，大大提高了开发效率。