

CSS

Позиционирование

Возможные методы

- СВОЙСТВО **position**
- СВОЙСТВО **float**
- СВОЙСТВО **display**
- СВОЙСТВО **display flex**
- СВОЙСТВО **display grid**

Позиционирование блока в окне браузера

position

Возможные значения :

position:**static**;

position:**absolute**;

position:**fixed**;

position:**relative**;

position:**sticky**.

Позиционирование блока

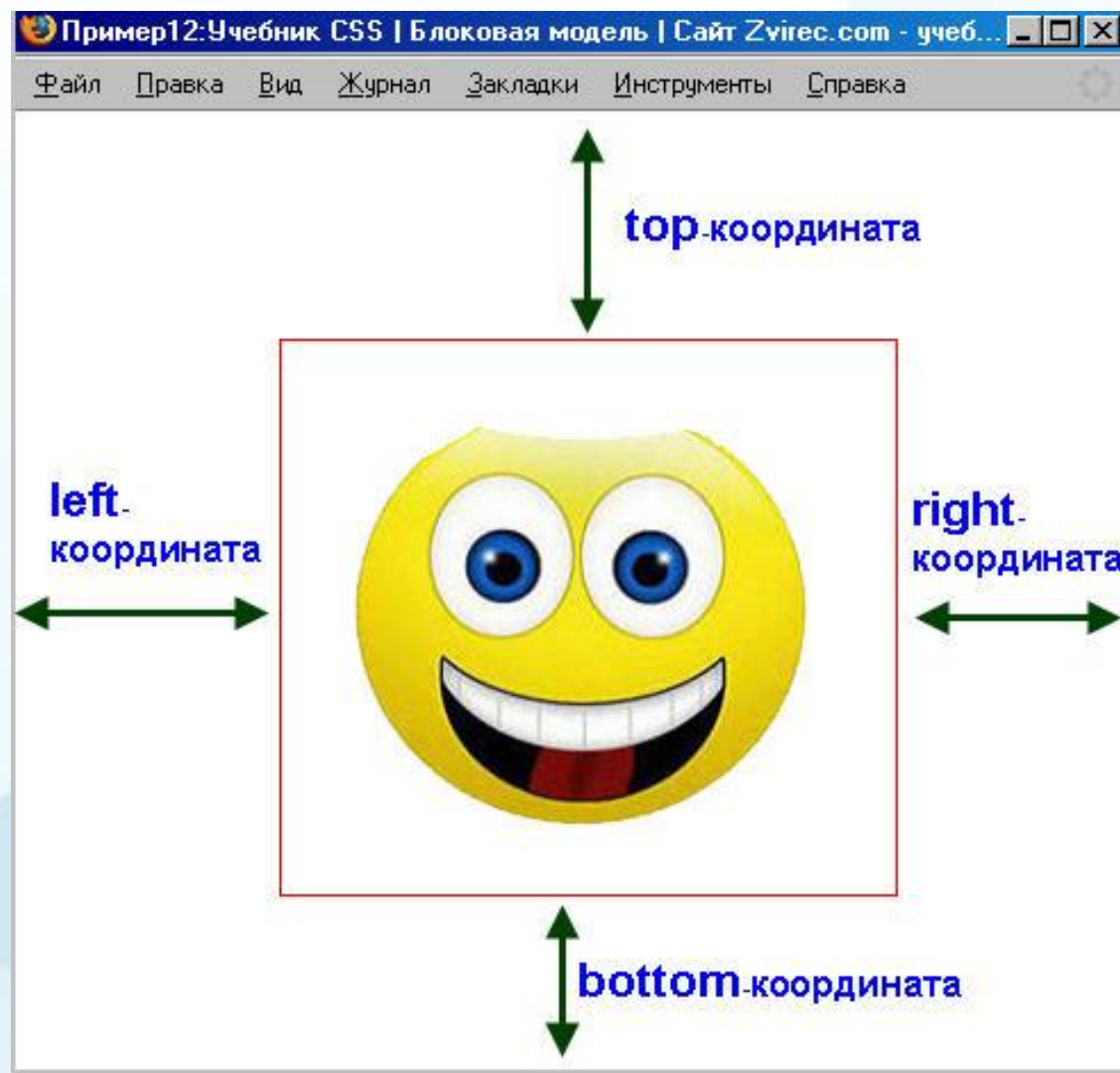
Для того, что бы позиционировать какой либо элемент к нему применяют свойство **position** и одно из его возможных значений:

- **static** - Статическое позиционирование элемента. (Элемент отображаются как обычно.)
- **fixed** - Фиксированное позиционирование элемента (жестко фиксируется относительно краев окна браузера с помощью top, right, left, bottom).
- **absolute** - Абсолютное позиционирование элемента (фиксируется относительно краев родительского элемента с помощью top, right, left, bottom).
- **relative** - Относительное позиционирование элемента (относительно места, где он должен был быть).

Позиционирование блока в окне браузера

Положение определяется значениями

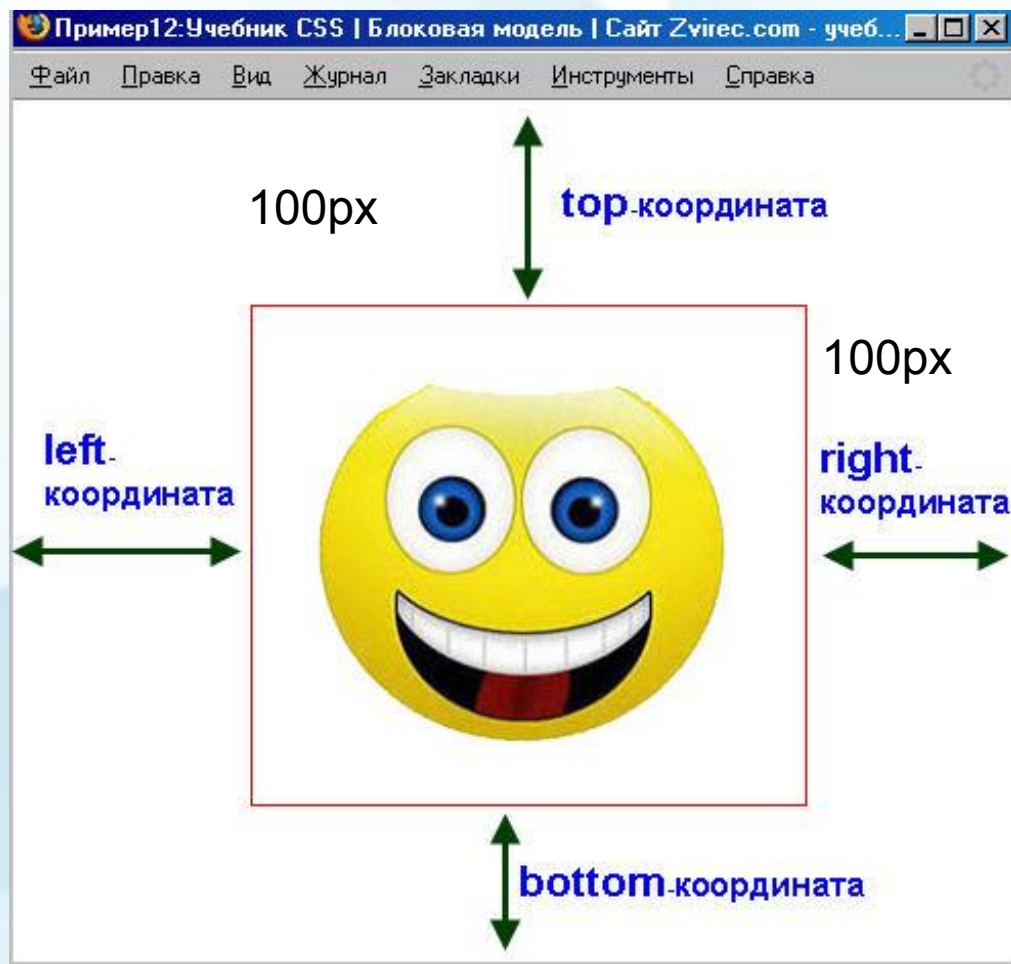
top,
left,
right,
bottom



POSITION:ABSOLUTE

```
.smile{  
  border: 1px solid red;  
  position:absolute;  
  top:100px;  
  right:100px;  
}
```

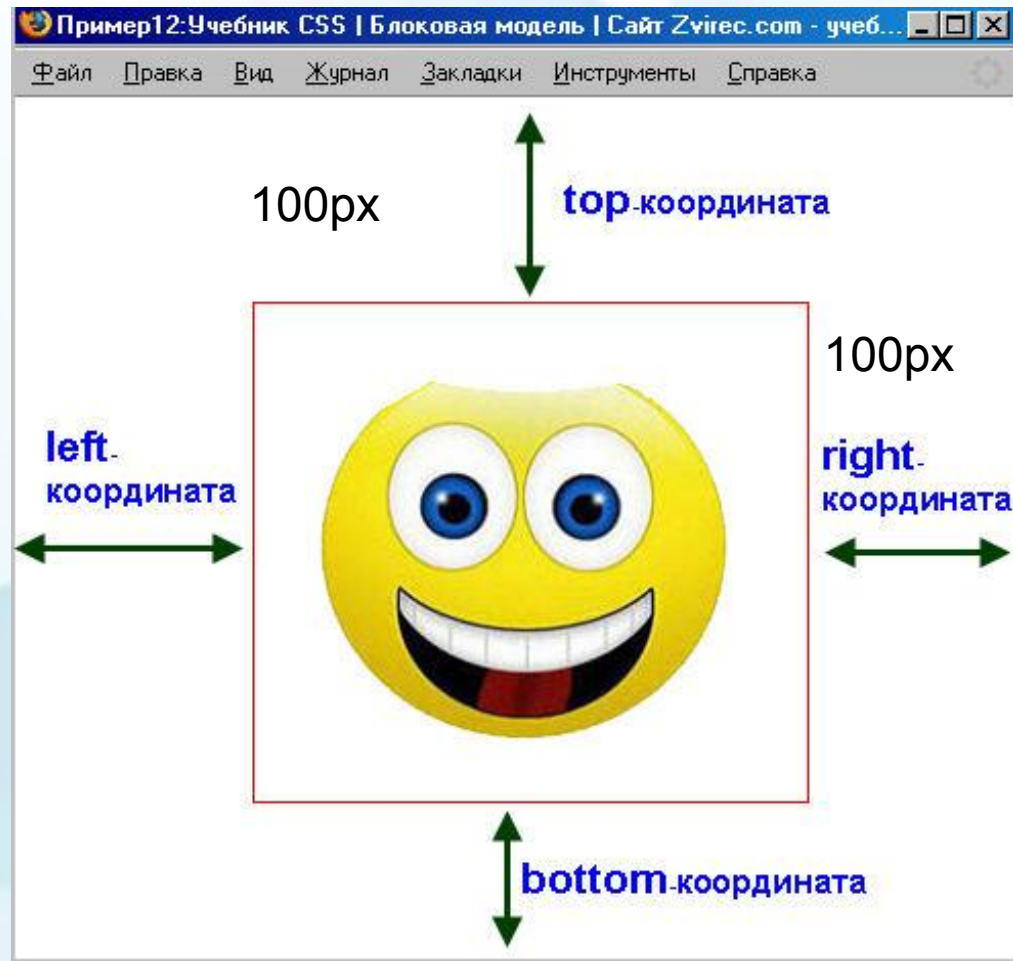
Относительно
объекта, в
котором он
находится



POSITION: fixed

```
.smile{  
border: 1px solid red;  
position:fixed;  
top:100px;  
right:100px;  
}
```

Относительно
окна браузера



POSITION: RELATIVE

```
.smile{  
border:1px solid red;  
position:relative;  
top:200px;  
left:100px;  
}
```

Относительно
места, где
должен был бы
находиться

If you're like the vast majority of people thinking of building a website, then you don't ha
making a pitch. A small budget, though, can still get you a good web site, provided you t

top:200px;

left:100px;

There is one universal truth in website mak
can pay \$\$\$ and have a website up and r
months). How do you find the right balanc

If you're like the vast majority of people th
means you can relax, I have no interest in
mix as well. Let's look at available options

There is one universal truth in website mak
can pay \$\$\$ and have a website up and r
months). How do you find the right balanc

If you're like the vast majority of people th
means you can relax, I have no interest in
mix as well. Let's look at

There is one universal t
in 2 weeks or you can

If you're like the vast ma
making a pitch. A small bu

There is one universal truth in website making: To make a website you need either time c
in 2 weeks or you can save your cash, spend your own time building a website and have

If you're like the vast majority of people thinking of building a website, then you don't ha



POSITION: RELATIVE

```
<html>
<head>
<style type="text/css">
h2.pos_top
{
position:relative;
top:-50px;
}
</style>
</head>
```

~~This is a heading with no position~~
This heading is moved upwards according to its normal position

Note: Even if the content of the relatively positioned element is moved, the reserved space for the element is still preserved in the normal flow.

```
<body>
<h2>This is a heading with no
  position</h2>
<h2 class="pos_top">This heading is
  moved upwards according to its
  normal position</h2>
<p><b>Note:</b> Even if the content of
  the relatively positioned element is
  moved, the reserved space for the
  element is still preserved in the normal
  flow.</p>
</body>

</html>
```

СВОЙСТВО z-index

```
div {  
width:75px;  
height:75px;  
border:1px solid red;  
background-color:orange;  
}  
.box1 {  
position: absolute;  
left: 200px;  
top: 200px;  
z-index: 1;  
}  
.box2 {  
position: absolute;  
left: 215px;  
top: 215px;  
z-index: 2;  
}  
.box3 {  
position: absolute;  
left: 230px;  
top: 230px;  
z-index: 3;  
}
```

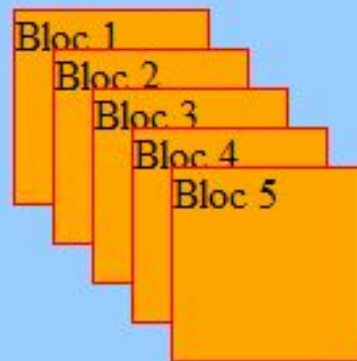
```
.box4 {  
position: absolute;  
left: 245px;  
top: 245px;  
z-index: 4;  
}  
.box5 {  
position: absolute;  
left: 260px;  
top: 260px;  
z-index: 5;  
}
```

<h3>Aranjarea blocurilor</h3>

```
<div class="box1">Bloc 1</div>  
<div class="box2">Bloc 2</div>  
<div class="box3">Bloc 3</div>  
<div class="box4">Bloc 4</div>  
<div class="box5">Bloc 5</div>
```

Резултат

Aranjarea blocurilor



СВОЙСТВО FLOAT

```
<html>
  <head>
    <title>
      Pagina lui Georgica
    </title>
    <link rel="stylesheet" type="text/css"
      href="mystyle.css" title="MyStyleSheet">

  </head>
  <body style="background-color: #99CCFF;">

  <h3>Aranjarea blocurilor</h3>

  <div class="box1">PRIMUL BLOC</div>
  <div class="box2">AL DOILEA BLOC</div>
  <div class="box3">AL TREILEA BLOC</div>

</body>
</html>
```

```
.box1 {
  width:200px;
  height:200px;
  border:1px solid red;
  background-color:orange;
  float:left;
}

.box2 {
  width:200px;
  height:200px;
  border:1px solid red;
  background-color:orange;
  float:left;
}

.box3 {
  width:200px;
  height:200px;
  border:1px solid red;
  background-color:orange;
  float:left;
}
```

Результат

Aranjarea blocurilor

PRIMUL BLOC

AL DOILEA BLOC

AL TREILEA BLOC

СВОЙСТВО FLOAT

```
<html>
  <head>
    <title>
      Pagina lui Georgica
    </title>
    <link rel="stylesheet" type="text/css"
      href="mystyle.css" title="MyStyleSheet">

  </head>
  <body style="background-color: #99CCFF;">

  <h3>Aranjarea blocurilor</h3>

  <div class="box1">PRIMUL BLOC</div>
  <div class="box2">AL DOILEA BLOC</div>
  <div class="box3">AL TREILEA BLOC</div>

</body>
</html>
```

```
.box1 {
  width:200px;
  height:200px;
  border:1px solid red;
  background-color:orange;
  float:right;
}
.box2 {
  width:200px;
  height:200px;
  border:1px solid red;
  background-color:orange;
  float:right;
}
.box3 {
  width:200px;
  height:200px;
  border:1px solid red;
  background-color:orange;
  float:right;
}
```

Результат

Aranjarea blocurilor

AL TREILEA BLOC

AL DOILEA BLOC

PRIMUL BLOC

Три колонки

```
.column1 {  
  float:left;  
  width: 33%;  
  background-color:orange;  
  border:1px solid red;  
}  
.column2 {  
  float:left;  
  width: 33%;  
  background-color:orange;  
  border:1px solid red;  
}  
.column3 {  
  float:left;  
  width: 33%;  
  background-color:orange;  
  border:1px solid red;  
}
```

```
<html>  
  <head>  
    <title>  
      Pagina lui Georgica  
    </title>  
    <link rel="stylesheet" type="text/css" href="mystyle.css"  
      title="MyStyleSheet">  
  </head>  
  <body style="background-color: #99CCFF;">  
    <h3>Aranjarea blocurilor</h3>  
  
    <div class="column1">  
      <p>There is one universal truth in website making: To  
      make a websitet...</p>  
    </div>  
  
    <div class="column2">  
      <p> If you're like the vast majority of people thinking  
      ...</p>  
    </div>  
  
    <div class="column3">  
      <p>There is one universal truth in website...</p>  
    </div>  
  
  </body>  
</html>
```


Результат

Aranjarea blocurilor

There is one universal truth in website making: To make a website...

If you're like the vast majority of people thinking ...

There is one universal truth in website...

Два блока и текст

```
h3 { text-align : center;  
      font-size : 27pt;}
```

```
p { text-align : right;  
     font-size : 12pt;}
```

```
.box1 {  
  width:100px;  
  height:100px;  
  border:1px solid red;  
  background-color:orange;  
  float:left;  
}
```

```
.box2 {  
  width:100px;  
  height:100px;  
  border:1px solid red;  
  background-color:orange;  
  float:left;  
}
```

```
<div class="box1">Primul bloc</div>  
<div class="box2">Al doilea bloc</div>
```

<p>Pozitionarea elementelor folosind CSS este mai precisa decat prin intermediul obiectelor grafice HTML sau a tabelelor, afisarea facandu-se mult mai rapid. Prin intermediul CSS este permisa pozitionarea exacta sau relativa a elementelor intr-o fereastră sau in raport cu alte elemente.

Fereastră navigatorului este suprafata in care sunt afisate toate elementele. Ea poate fi redimensionata sau pozitionata pe ecran, sau poate fi divizata in alte ferestre prin intermediul cadrelor.

Toate elementele amplasate in fereastră sunt pozitionate relativ la coltul din stanga-sus.

```
...</p>
```

Результат

Aranjarea blocurilor

Primul bloc	Al doilea bloc

Pozitionarea elementelor folosind CSS este mai precisa decat prin intermediul obiectelor grafice HTML sau a tabelelor, afisarea facandu-se mult mai rapid. Prin intermediul CSS este permisa

pozitionarea exacta sau relativa a elementelor intr-o fereastră sau in raport cu alte elemente. Fereastră navigatorului este suprafata in care sunt afisate toate elementele. Ea poate fi redimensionata sau pozitionata pe ecran, sau poate fi divizata in alte ferestre prin intermediul cadrelor. Toate elementele amplasate in fereastră sunt pozitionate relativ la coltul din stanga-sus. ...

Результат

```
h3 { text-align : center;  
      font-size : 27pt;}
```

```
p { text-align : right;  
     font-size : 12pt;}
```

```
.box1 {  
  width:100px;  
  height:100px;  
  border:1px solid red;  
  background-color:orange;  
  float:left;  
}
```

```
.box2 {  
  width:100px;  
  height:100px;  
  border:1px solid red;  
  background-color:orange;  
  float:left;  
  clear:both;  
}
```

```
<div class="box1">Primul bloc</div>  
<div class="box2">Al doilea bloc</div>
```

<p>Pozitionarea elementelor folosind CSS este mai precisa decat prin intermediul obiectelor grafice HTML sau a tabelelor, afisarea facandu-se mult mai rapid. Prin intermediul CSS este permisa pozitionarea exacta sau relativa a elementelor intr-o fereastră sau in raport cu alte elemente.

Fereastră navigatorului este suprafața în care sunt afișate toate elementele. Ea poate fi redimensionată sau pozitionată pe ecran, sau poate fi divizată în alte ferestre prin intermediul cadrelor.

Toate elementele amplasate în fereastră sunt pozitionate relativ la colțul din stanga-sus.

```
...</p>
```

Результат

Aranjarea blocurilor

Primul bloc

Al doilea bloc

Pozitionarea elementelor folosind CSS este mai precisa decat prin intermediul obiectelor grafice HTML sau a tabelor, afisarea facandu-se mult mai rapid. Prin intermediul CSS este permisa pozitionarea exacta sau relativa a elementelor intr-o fereastră sau in raport cu alte elemente.

Fereastră navigatorului este suprafata in care sunt afisate toate elementele. Ea poate fi redimensionata sau pozitionata pe ecran, sau poate fi divizata in alte ferestre prin intermediul cadrelor. Toate elementele amplasate in fereastră sunt pozitionate relativ la coltul din stanga-sus. ...

СВОЙСТВО CLEAR

```
h3 { text-align : center; font-size : 27pt; }
```

```
p { text-align : right; font-size : 12pt; }
```

```
.box {  
width:100px;  
height:100px;  
border:1px solid red;  
background-color:orange;  
float:left;  
}
```

```
.text_line  
{  
clear:both;  
}
```

```
<h3>Aranjarea blocurilor</h3>
```

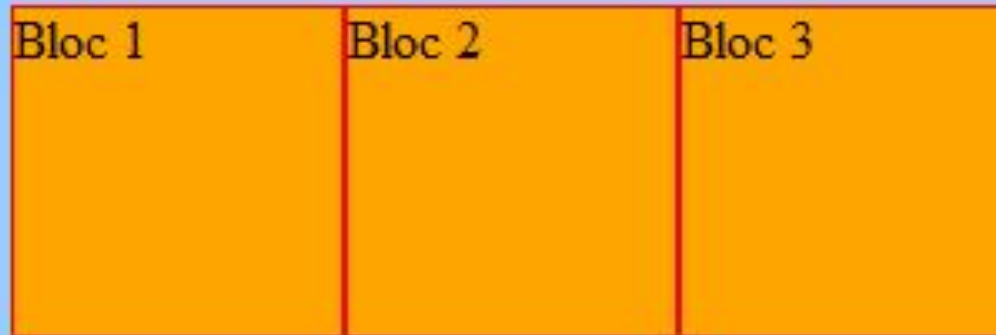
```
<div class="box">Bloc 1</div>  
<div class="box">Bloc 2</div>  
<div class="box">Bloc 3</div>
```

```
<p class="text_line">Text  
delimitator</p>
```

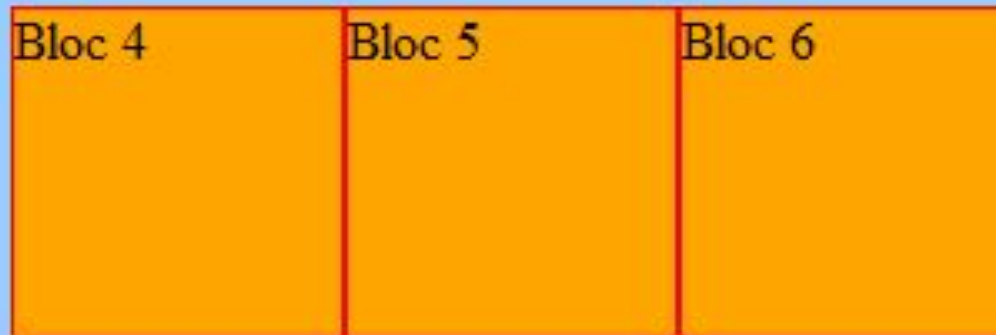
```
<div class="box">Bloc 4</div>  
<div class="box">Bloc 5</div>  
<div class="box">Bloc 6</div>
```

Результат

Aranjarea blocurilor



Text delimiter



Значения свойства CLEAR

- **left**
- **right**
- **both**
- **none**

Вертикальное меню

```
<html>
<head>
<style type="text/css">
div {border:1px solid red;
background-color:orange;
width:75px;padding:5px;}
.bloc {display:inline;}
</style>
</head>

<body>
<div>main</div>
<div>about</div>
<div>news</div>
<div>people</div>
<div>science</div>
<div>contact</div>

</body>
</html>
```



Горизонтальное меню

```
<html>
```

```
<head>
```

```
<style type="text/css">
```

```
div {border:1px solid red;  
background-color:orange;  
width:75px;padding:5px;}
```

```
.bloc {display:inline;}
```

```
</style>
```

```
</head>
```

```
<body>
```

```
<div class="bloc">main</div>
```

```
<div class="bloc">about</div>
```

```
<div class="bloc">news</div>
```

```
<div class="bloc">people</div>
```

```
<div class="bloc">science</div>
```

```
<div class="bloc">contact</div>
```

```
</body>
```

```
</html>
```



Rezultat

Antet

"Never increase, beyond what is necessary, the number of entities required to explain anything." William of Ockham (1285-1349)

Pozitionarea elementelor

Elementele pot primi o a treia dimensiune, si anume asezarea lor in stiva, unele in raport cu altele.

Amplasarea se face in mod automat, incepand cu valoarea 0 si continuand prin incrementare cu o unitate, in ordinea aparitiei lor in documentul HTML si relativ la elementele parinte.

Пример вёрстки страницы

```
body, html {  
margin:0px;  
padding:0px;  
text-align:center;  
}
```

```
#container{  
margin:0 auto;  
text-align:left;  
min-width:550px;  
}
```

```
#header{  
background-color:#63b9da;  
}
```

```
#left{  
background-color:#a9d28c;  
width:150px;  
float:left;  
}
```

```
#content{  
background-color:#d  
5d7b5;  
margin:0px;  
margin-left:152px;  
}
```

```
#content p {  
margin:0px;  
padding:5px;  
}
```

```
#clear{  
height:0;  
font-size:1px;  
line-height:0px;  
clear:both;  
}
```

```
#footer{  
background-color:#d  
292bc;  
}
```

```
<body>  
<div id="container">  
  
<div id="header">  
<h1>Header</h1>  
</div>  
<div id="left">  
<h3>left Content</h3>  
<p>The background color on this div will only  
show for the length of the content.. . . . </p>  
  
</div>  
<div id="content">  
<h1>Main Content </h1>  
<p>Lorem ipsum dolor sit amet, consectetur  
adipiscing elit. Praesent aliquam,  
</p><p>Some more text . . . . . </p>  
<p>&nbsp;</p>  
</div>  
<div id="clear"></div>  
<div id="footer">  
<p><strong>Footer</strong></p>  
</div>  
  
</div>  
</body>
```

Результат

Header

left Content

The background color on this div will only show for the length of the content. If you'd like a dividing line instead

Main Content

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Praesent aliquam, justo convallis luctus rutrum, erat nulla fermentum diam, at nonummy quam ante ac quam. Maecenas urna purus, fermentum id, molestie in, commodo porttitor, felis. Nam blandit quam ut lacus. Quisque ornare risus quis ligula.

Some more text

Footer

Свойство display

Наиболее часто используемые значения:

- block
- inline
- none

Ещё есть

Inline-block

table-row, table-cell, и т. д.

list-item

СВОЙСТВО display flex

- **CSS flexbox** (*Flexible Box Layout Module*) — модуль макета гибкого контейнера — представляет собой способ компоновки элементов.
- Flexbox состоит из **гибкого контейнера (flex container)** и **гибких элементов (flex items)**. Гибкие элементы могут выстраиваться в строку или столбик, а оставшееся свободное пространство распределяется между ними различными способами.

Flexbox

```
<!DOCTYPE html>
<html>
<head>
<style>
.flex-container {
  display: flex;
  background-color: Blue;
}
.flex-container > div {
  background-color: #f1f1f1;
  margin: 10px;
  padding: 20px;
  font-size: 30px;
}
</style>
</head>
```

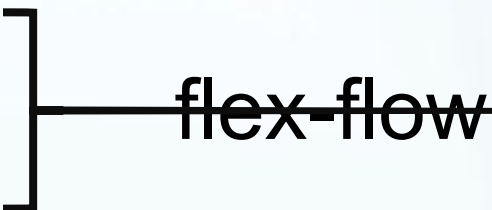
```
<body>
<h1>Create a Flex Container</h1>
<div class="flex-container">
  <div>1</div>
  <div>2</div>
  <div>3</div>
</div>
```

<p>A Flexible Layout must have a parent element with the `display` property set to `flex`.</p>

<p>Direct child element(s) of the flexible container automatically becomes flexible items.</p>

```
</body>
</html>
```

Свойства flexbox

- flex-direction
 - flex-wrap
 - justify-content
 - align-items
 - align-content
- flex-flow
- 
- A diagram consisting of a right-facing square bracket on the right side of the first two list items, 'flex-direction' and 'flex-wrap'. A horizontal line extends from the center of the bracket to the right, ending at the text 'flex-flow'.

flex items

Непосредственно дочерние элементы flexbox автоматически становятся flexible (flex) items со свойствами:

- order
- flex-grow
- flex-shrink
- flex-basis
- align-self



Responsive flexbox

- ```
.flex-container {
 display: flex;
 flex-direction: row;
}
```

```
/* Responsive layout - makes a one column layout
instead of a two-column layout */
```

```
@media (max-width: 800px) {
 .flex-container {
 flex-direction: column;
 }
}
```

# СВОЙСТВО display grid

```
<style>
```

```
.grid-container {
 display: grid;
 grid-template-columns: auto auto auto;
 background-color: darkblue;
 padding: 10px;
}
```

```
.grid-item {
 background-color: lightblue;
 border: 1px solid black;
 padding: 20px;
 font-size: 30px;
 text-align: center;
}
```

```
</style>
```

```
<div class="grid-container">
 <div class="grid-item">1</div>
 <div class="grid-item">2</div>
 <div class="grid-item">3</div>
 <div class="grid-item">4</div>
 <div class="grid-item">5</div>
 <div class="grid-item">6</div>
 <div class="grid-item">7</div>
 <div class="grid-item">8</div>
 <div class="grid-item">9</div>
</div>
```

# СВОЙСТВО display grid

```
.item1 { grid-area: header; }
.item2 { grid-area: menu; }
.item3 { grid-area: main; }
.item4 { grid-area: right; }
.item5 { grid-area: footer; }
```

```
.grid-container {
 display: grid;
 grid-template-areas:
 'header header header header header header'
 'menu main main main right right'
 'menu footer footer footer footer footer';
 grid-gap: 10px;
 background-color: #2196F3;
 padding: 10px;
}
```

```
.grid-container > div {

}
```

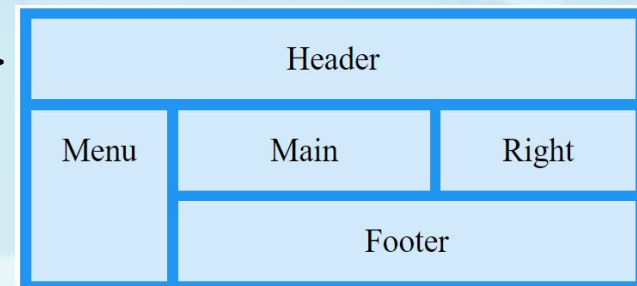
```
<body>
```

```
<h1>Grid Layout</h1>
```

```
<p>В этом grid шесть колонок и три
ряда (строки):</p>
```

```
<div class="grid-container">
 <div class="item1">Header</div>
 <div class="item2">Menu</div>
 <div class="item3">Main</div>
 <div class="item4">Right</div>
 <div class="item5">Footer</div>
</div>
```

```
</body>
```



# СВОЙСТВО display grid

```
.grid-container {
 display: grid;
 grid-gap: 10px;
 background-color: blue;
 padding: 10px;
}
.item1 {
 grid-column: 1 / span 2;
 grid-row: 1;
}
.item2 {
 grid-column: 3;
 grid-row: 1 / span 2;
}
.item5 {
 grid-column: 1 / span 3;
 grid-row: 3;
}
```

```
<body>
```

```
<h1>A Five Items Grid Layout</h1>
```

```
<div class="grid-container">
 <div class="item1">1</div>
 <div class="item2">2</div>
 <div class="item3">3</div>
 <div class="item4">4</div>
 <div class="item5">5</div>
</div>
```

```
<p>Item 1, 2, 5 занимают несколько колонок
или рядов.</p>
```

```
</body>
```

