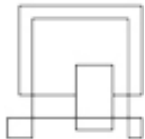


VIA University College



# Web Development 1

Layout, float, tables

# Agenda

- Recap
- Layout
- Float
- Tables

# Layout

- So far we have just placed elements on top of each other (sequentially)
- Often we want to control how elements are arranged on our page
- Don't use tables for this!

# float

- The CSS `float` property can be used to control layout
- The `float` property can have one of the following values:
  - `left` - The element floats to the left of its container
  - `right` - The element floats to the right of its container
  - `none` - The element does not float (will be displayed just where it occurs in the text). This is default
  - `inherit` - The element inherits the float value of its parent
- In its simplest use, the `float` property can be used to wrap text around images

```

<div id="wrapper">
  <div id="banner">This is the banner</div>
  <div id="left_nav">left nav</div>
  <div id="content">
    <p>Content</p>
    Lorem ipsum dolor sit amet, consectetur adipisicing elit. In commodi eveniet, amet, vero quae nesciunt aut
    sequi quisquam velit consequatur consequuntur consectetur illum incidunt eaque voluptatum facilis itaque,
    laborum est.
  </div>
  <div id="right_side">right side </div>
  <div id="footer">footer</div>
</div>

```

This is the banner		
left nav	Content	right side
	<p>           Lorem ipsum dolor sit amet, consectetur adipisicing elit. In commodi eveniet, amet, vero quae nesciunt aut sequi quisquam velit consequatur consequuntur consectetur illum incidunt eaque voluptatum facilis itaque, laborum est.         </p>	
footer		

```
<div id="wrapper">
  <div id="banner">This is the banner</div>
  <div id="left_nav">left nav</div>
  <div id="content">
    <p>Content</p>
    Lorem ipsum dolor sit amet, consectetur adipisicing elit. In commodi eveniet, amet, vero quae nesciunt aut
    sequi quisquam velit consequatur consequuntur consectetur illum incidunt eaque voluptatum facilis itaque,
    laborum est.
  </div>
  <div id="right_side">right side </div>
  <div id="footer">footer</div>
</div>
```

With no styling, looks like this

This is the banner

left nav

Content

Lorem ipsum dolor sit amet, consectetur adipisicing elit. In commodi eveniet, amet, vero quae nesciunt aut sequi quisquam velit consequatur consequuntur consectetur illum incidunt eaque voluptatum facilis itaque, laborum est.

right side

footer

```
<div id="wrapper">
  <div id="banner">This is the banner</div>
  <div id="left_nav">left nav</div>
  <div id="content">
    <p>Content</p>
    Lorem ipsum dolor sit amet, consectetur adipisicing elit.
    sequi quisquam velit consequatur consequuntur consectetur
    laborum est.
  </div>
  <div id="right_side">right side </div>
  <div id="footer">footer</div>
</div>
```

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

This is the banner


left nav

Content

Lorem ipsum dolor sit amet, consectetur adipisicing elit. In commodi eveniet, amet, vero quae nesciunt aut sequi quisquam velit consequatur consequuntur consectetur illum incididunt eaque voluptatum facilis itaque, laborum est.

right side

footer

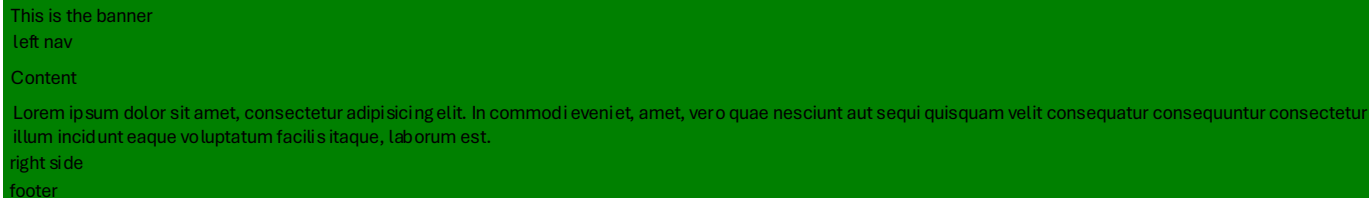


```
<div id="wrapper">
  <div id="banner">This is the banner</div>
  <div id="left_nav">left nav</div>
  <div id="content">
    <p>Content</p>
    Lorem ipsum dolor sit amet, consectetur adipisicing elit.
    sequi quisquam velit consequatur consequuntur consectetur
    laborum est.
  </div>
  <div id="right_side">right side </div>
  <div id="footer">footer</div>
</div>
```

```
#wrapper {
  width: 960px;
  margin-left: auto;
  margin-right: auto;
  background-color: green;
}
```



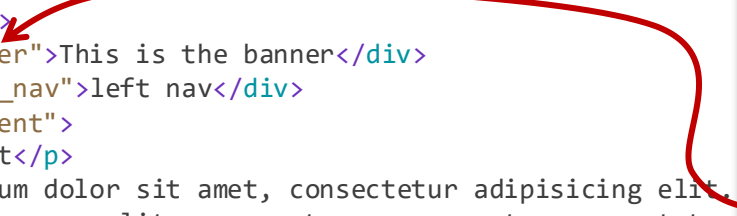
Result



This is the banner  
left nav  
Content  
Lorem ipsum dolor sit amet, consectetur adipisicing elit. In commodi eveniet, amet, vero quae nesciunt aut sequi quisquam velit consequatur consequuntur consectetur illum incidunt eaque voluptatum facilis itaque, laborum est.  
right side  
footer



```
<div id="wrapper">
  <div id="banner">This is the banner</div>
  <div id="left_nav">left nav</div>
  <div id="content">
    <p>Content</p>
    Lorem ipsum dolor sit amet, consectetur adipisicing elit.
    sequi quisquam velit consequatur consequuntur consectetur
    laborum est.
  </div>
  <div id="right_side">right side </div>
  <div id="footer">footer</div>
</div>
```



```
#wrapper{
  width: 960px;
  margin-left: auto;
  margin-right: auto;
  background-color: green;
}
```

```
#banner{
  height: 80px;
  background-color: red;
  border: 1px solid black;
}
```

This is the banner

left nav

Content

Lorem ipsum dolor sit amet, consectetur adipisicing elit. In commodi eveniet, amet, vero quae nesciunt aut sequi quisquam velit consequatur consequuntur consectetur illum incidunt eaque voluptatum facilis itaque, laborum est.

right side

footer

```

<div id="wrapper">
  <div id="banner">This is the banner</div>
  <div id="left_nav">left nav</div>
  <div id="content">
    <p>Content</p>
    Lorem ipsum dolor sit amet, consectetur adipisicing elit.
    sequi quisquam velit consequatur consequuntur consectetur
    laborum est.
  </div>
  <div id="right_side">right side </div>
  <div id="footer">footer</div>
</div>

```

```

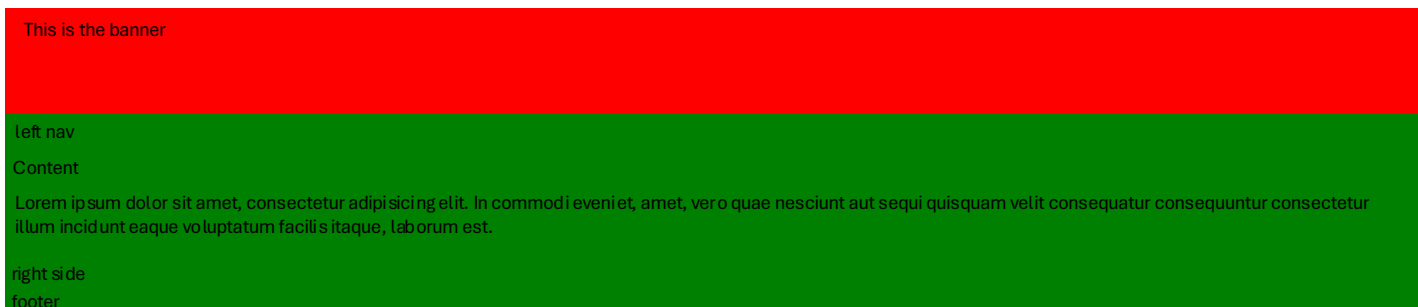
#wrapper{
  width: 960px;
  margin-left: auto;
  margin-right: auto;
  background-color: green;
}

```

```

#banner{
  height: 80px;
  background-color: red;
  border: 1px solid black;
}

```



```

<div id="wrapper">
  <div id="banner">This is the banner</div>
  <div id="left_nav">left nav</div>
  <div id="content">
    <p>Content</p>
    Lorem ipsum dolor sit amet, consectetur adipisicing elit.
    sequi quisquam velit consequatur consequuntur consectetur
    laborum est.
  </div>
  <div id="right_side">right side </div>
  <div id="footer">footer</div>
</div>

```

```

#banner{
  height: 80px;
  background-color: red;
  border: 1px solid black;
}

```

```

#left_nav{
  background-color: #A0A0A0;
  border: 1px solid black;
  width: 150px;
  float: left;
}

```

This is the banner

left nav

Content

Lorem ipsum dolor sit amet, consectetur adipisicing elit. In commodi eveniet, amet, vero quae nesciunt aut sequi quisquam velit consequatur consequuntur consectetur illum incidunt eaque voluptatum facilis itaque, laborum est.

right side

footer

```

<div id="wrapper">
  <div id="banner">This is the banner</div>
  <div id="left_nav">left nav</div>
  <div id="content">
    <p>Content</p>
    Lorem ipsum dolor sit amet, consectetur adipisicing elit.
    sequi quisquam velit consequatur consequuntur consectetur
    laborum est.
  </div>
  <div id="right_side">right side </div>
  <div id="footer">footer</div>
</div>

```

```

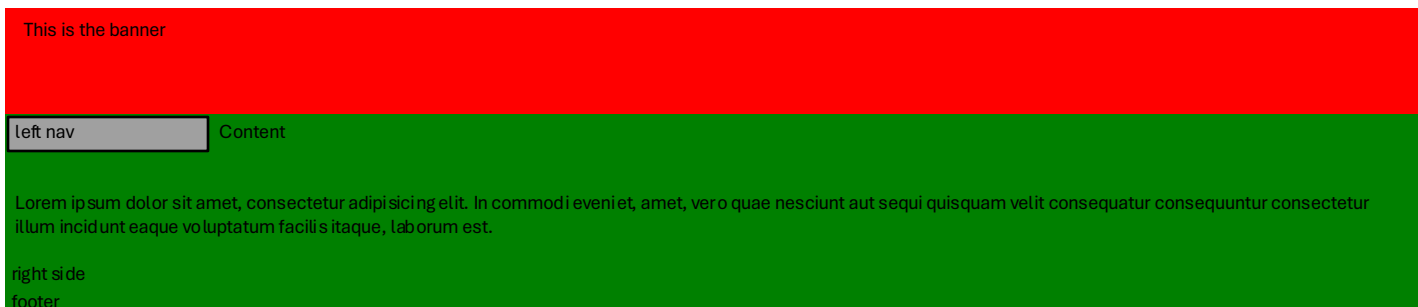
#banner{
  height: 80px;
  background-color: red;
  border: 1px solid black;
}

```

```

#left_nav{
  background-color: #A0A0A0;
  border: 1px solid black;
  width: 150px;
  float: left;
}

```



```

<div id="wrapper">
  <div id="banner">This is the banner</div>
  <div id="left_nav">left nav</div>
  <div id="content">
    <p>Content</p>
    Lorem ipsum dolor sit amet, consectetur adipisicing elit.
    sequi quisquam velit consequatur consequuntur consectetur
    laborum est.
  </div>
  <div id="right_side">right side </div>
  <div id="footer">footer</div>
</div>

```

```

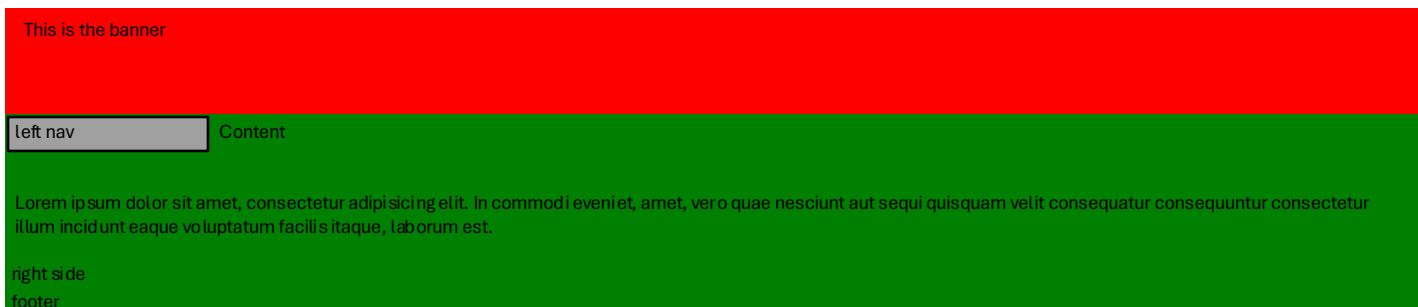
#left_nav{
  background-color: #A0A0A0;
  border: 1px solid black;
  width: 150px;
  float: left;
}

```

```

#content{
  border: 1px solid black;
  background-color: #C0C0C0;
  width: 660px;
  float: left;
}

```



```

<div id="wrapper">
  <div id="banner">This is the banner</div>
  <div id="left_nav">left nav</div>
  <div id="content">
    <p>Content</p>
    Lorem ipsum dolor sit amet, consectetur adipisicing elit.
    sequi quisquam velit consequatur consequuntur consectetur
    laborum est.
  </div>
  <div id="right_side">right side </div>
  <div id="footer">footer</div>
</div>

```

```

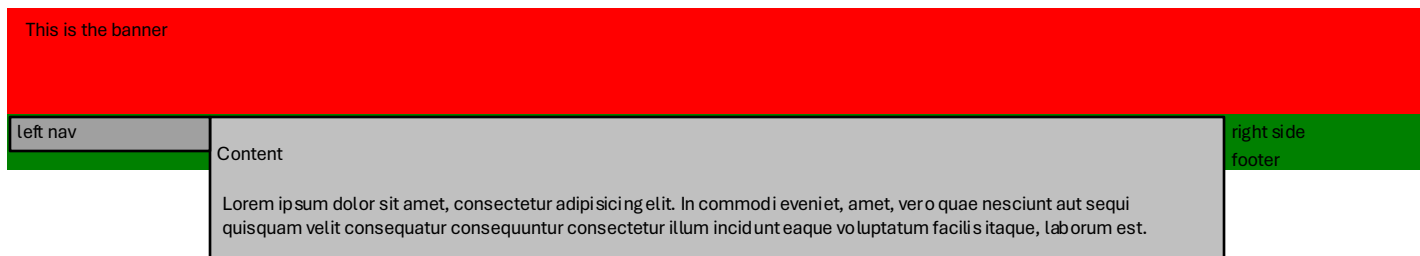
#left_nav{
  background-color: #A0A0A0;
  border: 1px solid black;
  width: 150px;
  float: left;
}

```

```

#content{
  border: 1px solid black;
  background-color: #C0C0C0;
  width: 660px;
  float: left;
}

```



```

<div id="wrapper">
  <div id="banner">This is the banner</div>
  <div id="left_nav">left nav</div>
  <div id="content">
    <p>Content</p>
    Lorem ipsum dolor sit amet, consectetur adipisicing elit.
    sequi quisquam velit consequatur consequuntur consectetur
    laborum est.
  </div>
  <div id="right_side">right side </div>
  <div id="footer">footer</div>
</div>

```

```

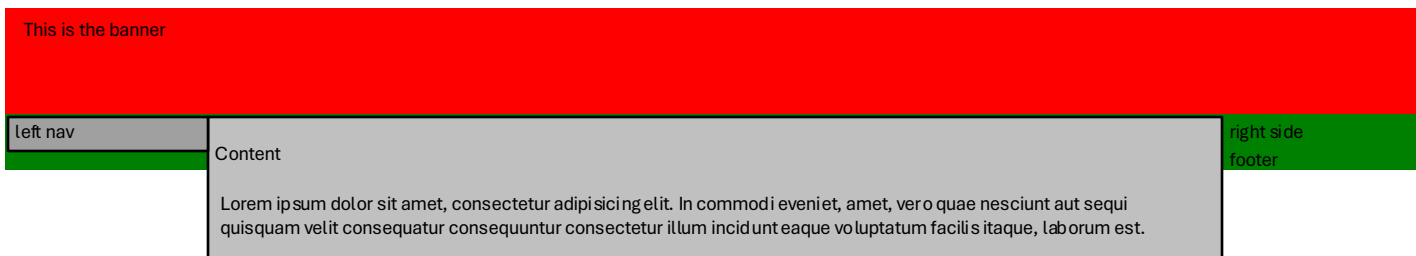
#content{
  border: 1px solid black;
  background-color: #C0C0C0;
  width: 660px;
  float: left;
}

```

```

#right_side{
  border: 1px solid black;
  background-color: #A0A0A0;
  width: 150px;
  float: left;
}

```



```

<div id="wrapper">
  <div id="banner">This is the banner</div>
  <div id="left_nav">left nav</div>
  <div id="content">
    <p>Content</p>
    Lorem ipsum dolor sit amet, consectetur adipisicing elit.
    sequi quisquam velit consequatur consequuntur consectetur
    laborum est.
  </div>
  <div id="right_side">right side </div>
  <div id="footer">footer</div>
</div>

```

```

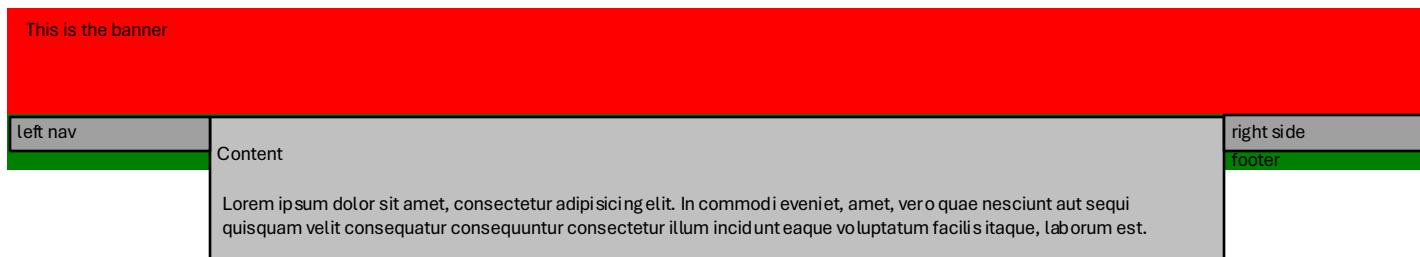
#content{
  border: 1px solid black;
  background-color: #C0C0C0;
  width: 660px;
  float: left;
}

```

```

#right_side{
  border: 1px solid black;
  background-color: #A0A0A0;
  width: 150px;
  float: left;
}

```





```

<div id="wrapper">
  <div id="banner">This is the banner</div>
  <div id="left_nav">left nav</div>
  <div id="content">
    <p>Content</p>
    Lorem ipsum dolor sit amet, consectetur adipisicing elit.
    sequi quisquam velit consequatur consequuntur consectetur
    laborum est.
  </div>
  <div id="right_side">right side </div>
  <div id="footer">footer</div>
</div>

```

```

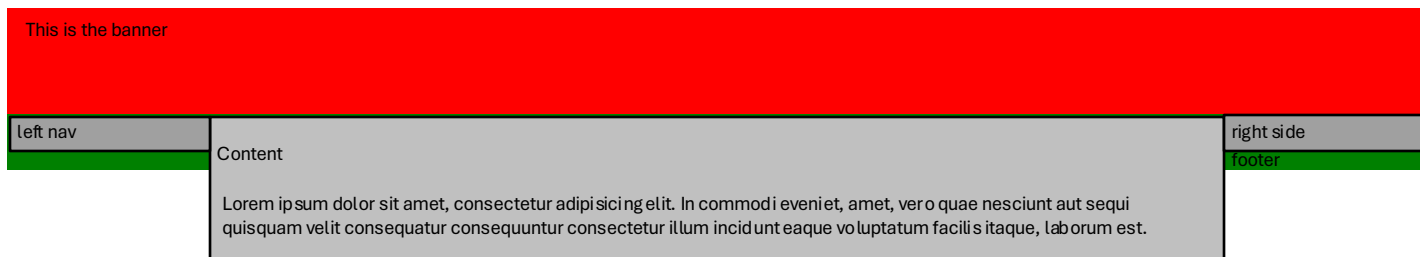
#right_side{
  border: 1px solid black;
  background-color: #A0A0A0;
  width: 150px;
  float: left;
}

```

```

#footer{
  clear: both;
  border: 1px solid black;
  background-color: #808080;
}

```



```

<div id="wrapper">
  <div id="banner">This is the banner</div>
  <div id="left_nav">left nav</div>
  <div id="content">
    <p>Content</p>
    Lorem ipsum dolor sit amet, consectetur adipisicing elit.
    sequi quisquam velit consequatur consequuntur consectetur
    laborum est.
  </div>
  <div id="right_side">right side </div>
  <div id="footer">footer</div>
</div>

```

```

#right_side{
  border: 1px solid black;
  background-color: #A0A0A0;
  width: 150px;
  float: left;
}

```

```

#footer{
  clear: both;
  border: 1px solid black;
  background-color: #808080;
}

```



This is the banner		
left nav	Content	right side
	Lorem ipsum dolor sit amet, consectetur adipisicing elit. In commodi eveniet, amet, vero quae nesciunt aut sequi quisquam velit consequatur consequuntur consectetur illum incidunt eaque voluptatum facilis itaque, laborum est.	
footer		

# float

## HTML

```
<p>
```

```
Lorem ipsum dolor sit amet, consectetur adipiscing
elit. Phasellus imperdiet,...</p>
```

# float

## HTML

```
<p>
```

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Phasellus imperdiet,...

`img {float: none;} (default)`



Lorem ipsum dolor sit amet, consectetur adipiscing elit. Phasellus imperdiet, nulla et dictum interdum,

nisi lorem egestas odio, vitae scelerisque enim ligula venenatis dolor. Maecenas nisi est, ultrices nec congue eget, auctor vitae massa. Fusce luctus vestibulum augue ut aliquet. Mauris ante ligula, facilisis sed ornare eu, lobortis in odio. Praesent convallis urna a lacus interdum ut hendrerit risus congue. Nunc sagittis dictum nisi, sed ullamcorper ipsum dignissim ac...

# float

## HTML

```
<p>
```

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Phasellus imperdiet,...

```
img {float: right;}
```

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Phasellus imperdiet, nulla et dictum interdum, nisi lorem egestas odio, vitae scelerisque enim ligula venenatis dolor. Maecenas nisl est, ultrices nec congue eget, auctor vitae massa. Fusce luctus vestibulum augue ut aliquet. Mauris ante ligula, facilisis sed ornare eu, lobortis in odio. Praesent convallis urna a lacus interdum ut hendrerit risus congue. Nunc sagittis dictum nisi, sed ullamcorper ipsum dignissim ac...



# float

## HTML

```
<p>
```

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Phasellus imperdiet,...

```
img {float: left;}
```



Lorem ipsum dolor sit amet, consectetur adipiscing elit. Phasellus imperdiet, nulla et dictum interdum, nisi lorem egestas odio, vitae scelerisque enim ligula venenatis dolor. Maecenas nisl est, ultrices nec congue eget, auctor vitae massa. Fusce luctus vestibulum augue ut aliquet. Mauris ante ligula, facilisis sed ornare eu, lobortis in odio. Praesent convallis urna a lacus interdum ut hendrerit risus congue. Nunc sagittis dictum nisi, sed ullamcorper ipsum dignissim ac...

## float

- Normally `<div>` elements will be displayed on top of each other.
- However, if we use `float: left` we can let elements float next to each other

float

HTML:

```
<div class="div1">Div 1</div>
```

```
<div class="div2">Div 2</div>
```

```
<div class="div3">Div 3</div>
```



# float

## HTML:

```
<div class="div1">Div 1</div>
```

```
<div class="div2">Div 2</div>
```

```
<div class="div3">Div 3</div>
```

## CSS:

```
.div1 {  
    background-color: red;  
}
```

```
.div2 {  
    background-color: yellow;  
}
```

```
.div3 {  
    background-color: green;  
}
```

float

HTML:

```
<div class="div1">Div 1</div>  
<div class="div2">Div 2</div>  
<div class="div3">Div 3</div>
```



*Fills browser width*

CSS:

```
.div1 {  
  background-color: red;  
}  
  
.div2 {  
  background-color: yellow;  
}  
  
.div3 {  
  background-color: green;  
}
```

# float

## HTML:

```
<div class="div1">Div 1</div>
<div class="div2">Div 2</div>
<div class="div3">Div 3</div>
```



*Fills browser width*

## CSS:

```
div {
  float: left;
  padding: 15px;
}

.div1 {
  background-color: red;
}

.div2 {
  background-color: yellow;
}

.div3 {
  background-color: green;
}
```

# float

## HTML:

```
<div class="div1">Div 1</div>  
<div class="div2">Div 2</div>  
<div class="div3">Div 3</div>
```

## CSS:

```
div {  
  float: left;  
  padding: 15px;  
}  
  
.div1 {  
  background-color: red;  
}  
  
.div2 {  
  background-color: yellow;  
}  
  
.div3 {  
  background-color: green;  
}
```



*Fills browser width*

## The `clear` property

- When we use the `float` property, and we want the next element below (not on right or left), we will have to use the `clear` property
- The `clear` property specifies what should happen with the element that is next to a floating element

# The **clear** property

Value	Description
<b>none</b>	The element is not pushed below left or right floated elements. This is default
<b>left</b>	The element is pushed below left floated elements
<b>right</b>	The element is pushed below right floated elements
<b>both</b>	The element is pushed below both left and right floated elements
<b>inherit</b>	The element inherits the clear value from its parent

# The **clear** property

Some text inside the box.

Some text inside the box.

Some text inside the box.

Some text inside the box.

**Note:** Here, we use the clearfix hack to take care of the layout flow. We also use the box-sizing property to make sure that the box doesn't break due to extra padding. Try to remove this code to see the effect.

*Clear this*

Some text inside the box.

Some text inside the box.

Some text inside the box.

Some text inside the box.

**Note:** Here, we use the clearfix hack to take care of the layout flow. We also use the box-sizing property to make sure that the box doesn't break due to extra padding. Try to remove this code to see the effect.

## The "clearfix" hack

- If a floated element is taller than the containing element, it will "overflow" outside of its container
- We can use a hack to solve this problem, often called "clearfix"



# The "clearfix" hack

## HTML:

```
<div class= "clearfix" >  
  
```

Lorem ipsum dolor sit amet, consectetur adipiscing elit.  
Phasellus imperdiet...

```
</div>
```

# The "clearfix" hack

## HTML:

```
<div class= "clearfix" >  
  
```

Lorem ipsum dolor sit amet, consectetur adipiscing elit.  
Phasellus imperdiet...

```
</div>
```

## Without Clearfix

Lorem ipsum dolor sit amet, consectetur  
adipiscing elit. Phasellus imperdiet, nulla et  
dictum interdum...



# The "clearfix" hack

## HTML:

```
<div class= "clearfix" >  
      
    Lorem ipsum dolor sit amet, consectetur adipiscing elit.  
    Phasellus imperdiet...  
</div>
```

## CSS:

```
.clearfix {  
    overflow: auto;  
}
```

## Without Clearfix

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Phasellus imperdiet, nulla et dictum interdum...



# The "clearfix" hack

## HTML:

```
<div class= "clearfix" >  
      
    Lorem ipsum dolor sit amet, consectetur adipiscing elit.  
    Phasellus imperdiet...  
</div>
```

## CSS:

```
.clearfix {  
    overflow: auto;  
}
```

## With Clearfix

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Phasellus imperdiet, nulla et dictum interdum...



# position Property

- Different ways of moving HTML elements around, relative to other things
- **static**
  - Default value. Elements render in order, as they appear in the HTML document flow.
- **absolute**
  - The element is positioned relative to its first positioned (not static) parent element.
- **fixed**
  - The element is positioned relative to the browser window.
- **relative**
  - The element is positioned relative to its normal position, so "**left**:20**px**" adds 20 pixels to the element's LEFT position.
- **sticky**
  - The element is positioned based on the user's scroll position.
  - A sticky element toggles between relative and fixed, depending on the scroll position.

# position Property

- Different

- **static**

- Def

- **absolute**

- The

- ➡ • **fixed**

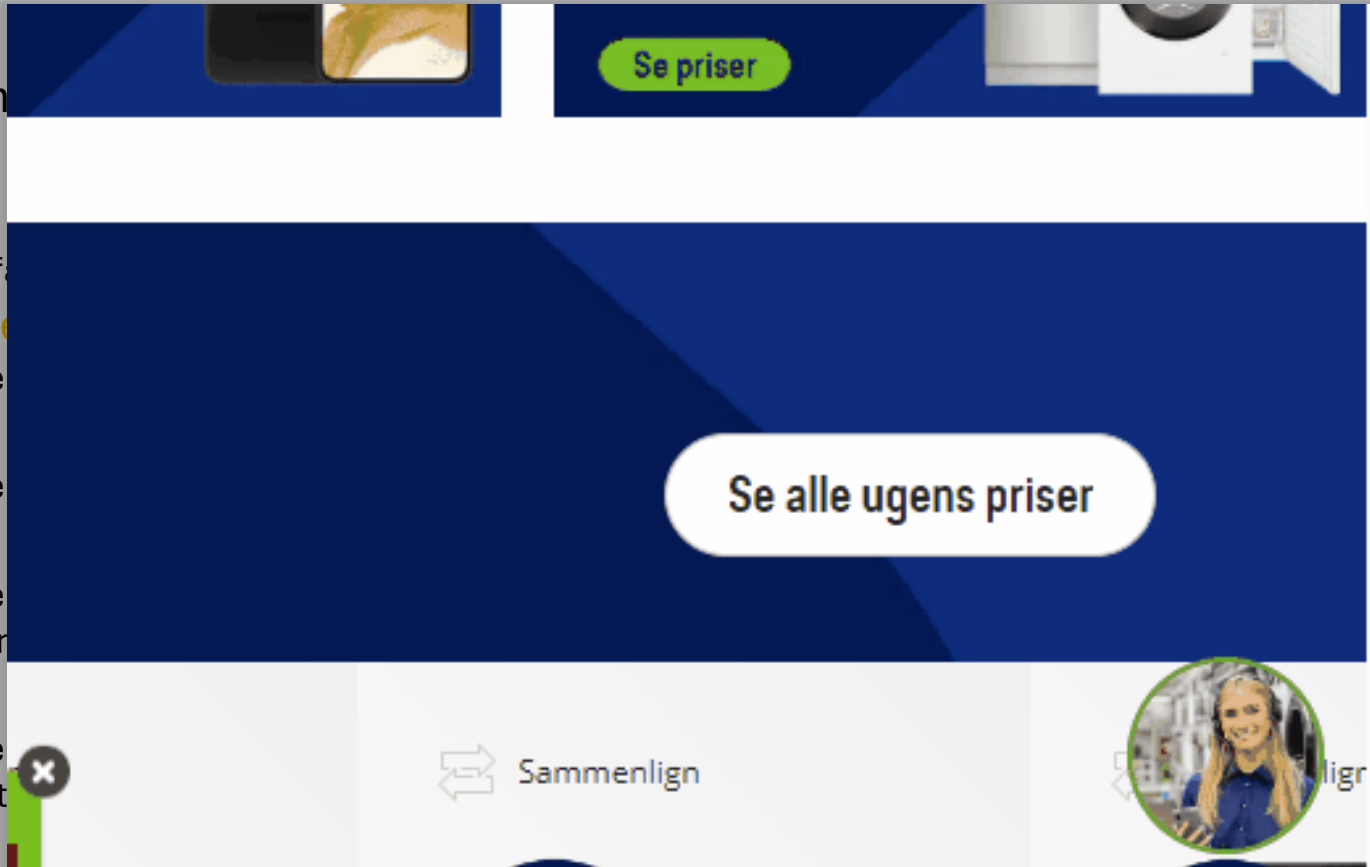
- The

- **relative**

- The  
eler

- **sticky**

- The  
◦ A st



## position Property

- Different ways of moving HTML elements around, relative to other things

**Try to scroll inside this frame to understand how sticky positioning works.**

I am sticky!

Lorem ipsum dolor sit amet, illum definitiones no quo, maluisset concludaturque et eum, altera fabulas ut quo. Atqui causae gloriatur

element's LEFT position.



### • sticky

- The element is positioned based on the user's scroll position.
- A sticky element toggles between relative and fixed, depending on the scroll position.

# Tables

- A collection of data
- Good for organization (but not for layout!)



## HTML:

```
<table>
  <tr>
    <th>Title</th>
    <th>Author</th>
    <th>Page count</th>
    <th>Rating</th>
  </tr>
  <tr>
    <td>The Service of Mars</td>
    <td>Glynn Stewart</td>
    <td>319</td>
    <td>4.56</td>
  </tr>
  <tr>
    <td>Assassin's Fate</td>
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```

Title	Author	Page count	Rating
The Service of Mars	Glynn Stewart	319	4.56
Assassin's Fate	Robin Hobb	847	4.64
Hell Divers	Nicholas S. Smith	431	3.85

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**<th>** Defines a header cell in the table

**<td>** Defines a data cell in the table

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## HTML:

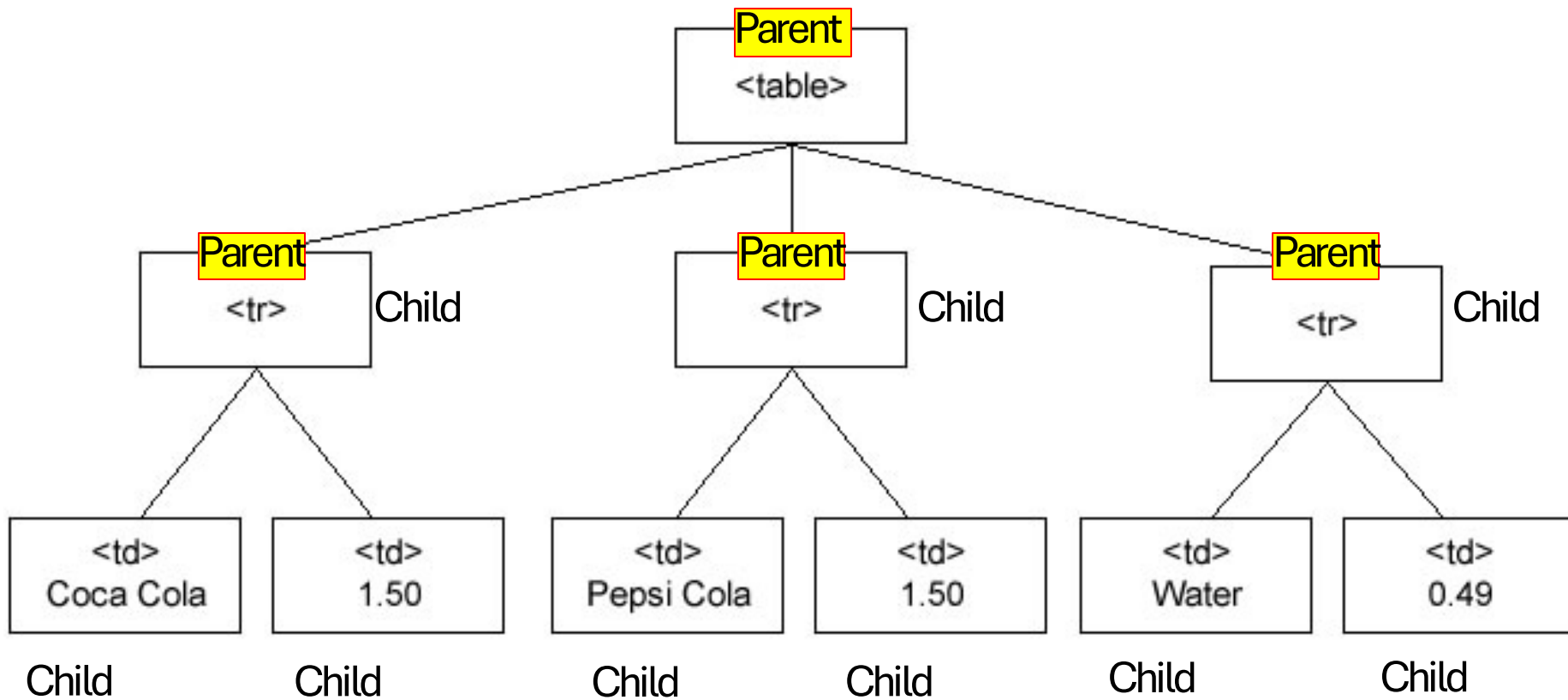
```
<table>
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  </tr>
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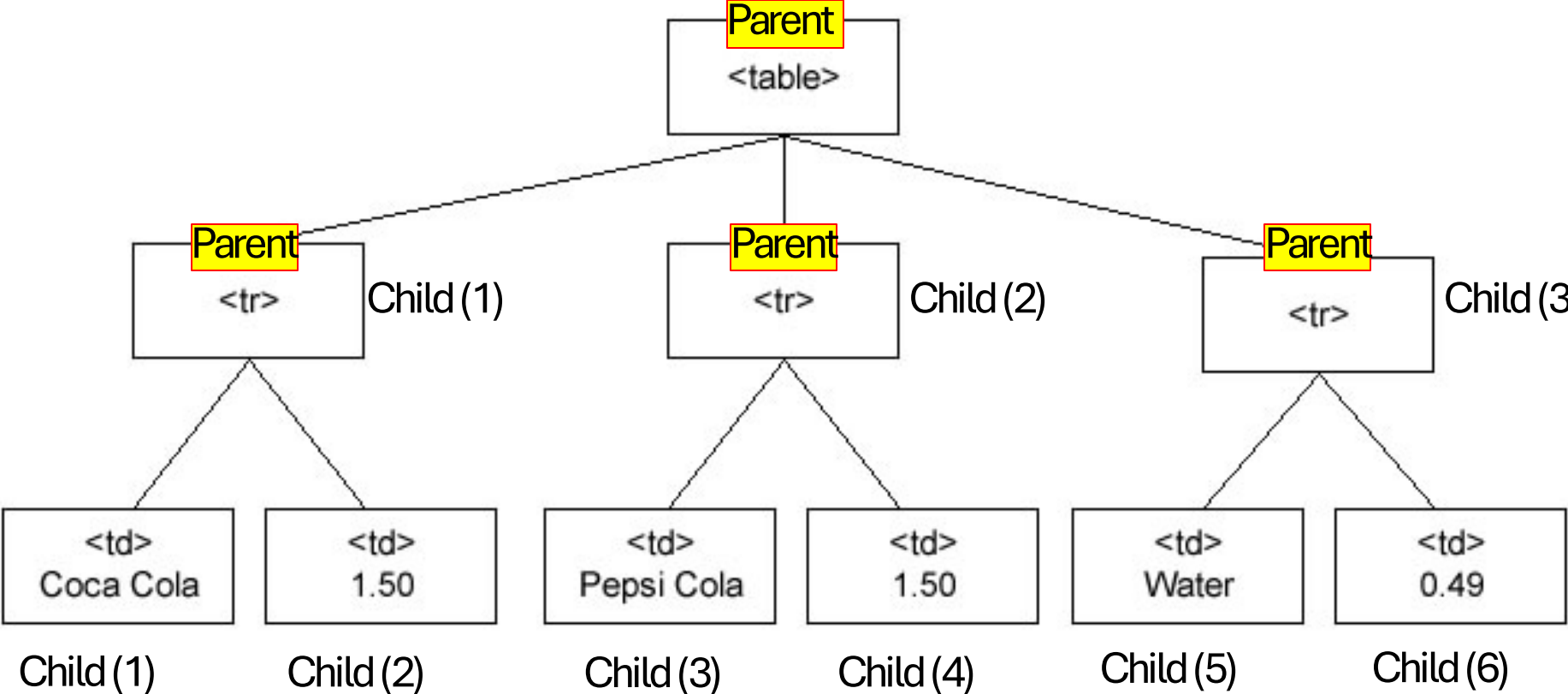
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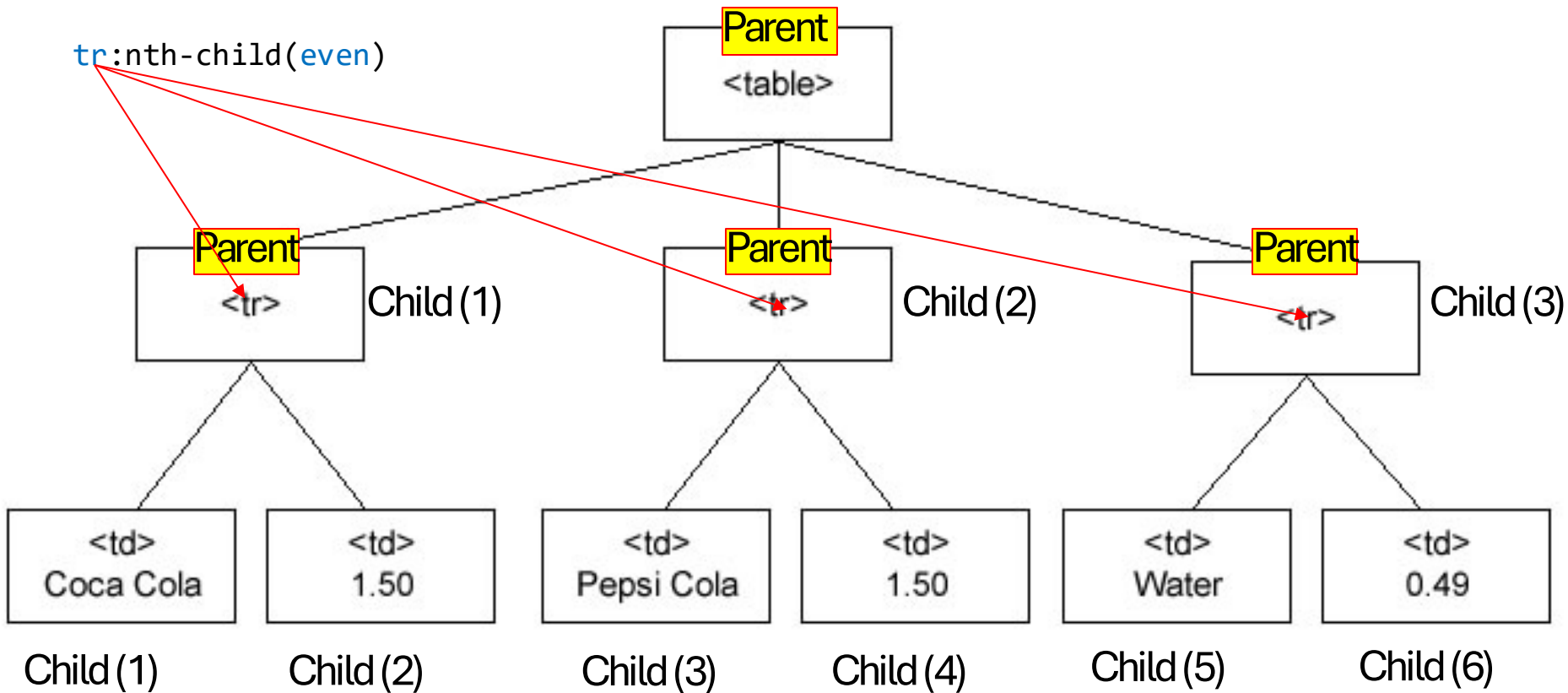
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## n-th child selector

- Elements are structured in a collection (tree-set)
- Easy to pick a specific element
- Also possible to pick a subset of elements
- What if we want all even-numbered sub-elements? (or odd-numbered)
- n-th child selector

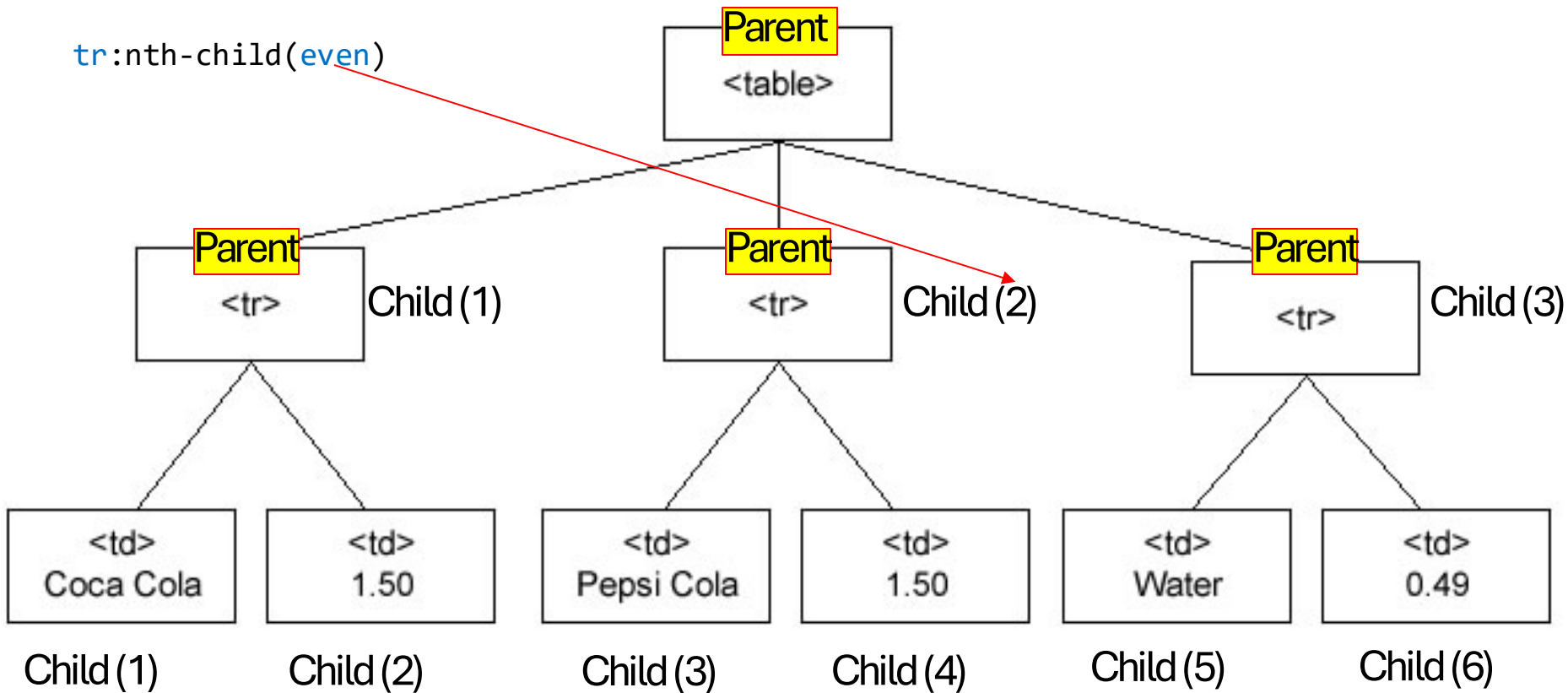




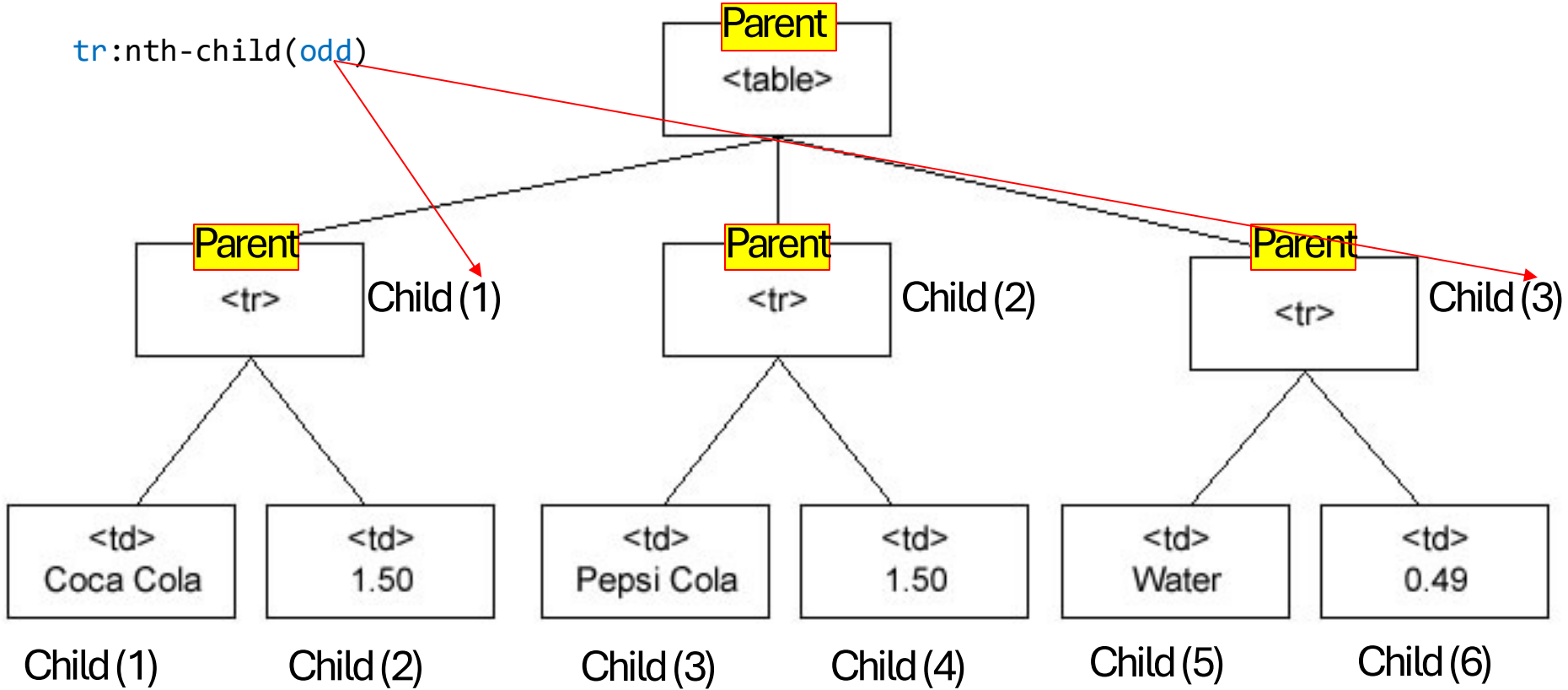


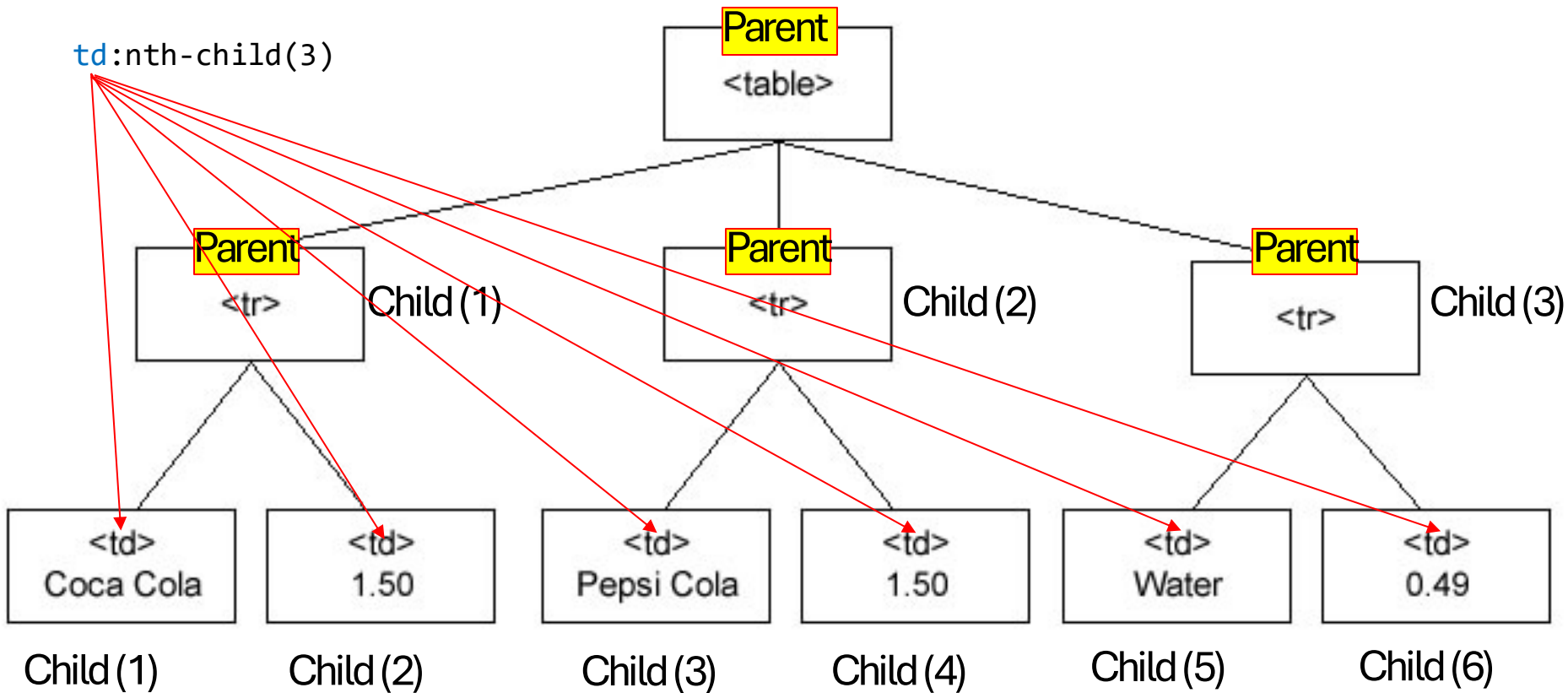


`tr:nth-child(even)`



`tr:nth-child(odd)`





`td:nth-child(3)`

