



IF.03.01 _BASIC WEB TECHNIQUES

Creating Web Sites with HTML, CSS and Javascript

UNIT 04

CSS Classes and Ids, Box Model, Floating, Debugging

GOALS FOR THIS UNIT

- You know id and class selectors and can use them to layout web pages
- You understand the css box model
- You know how to float elements using css
- You know how to inspect html / css ... elements with Browser tools

JUST LOOK AND ENJOY

- <http://www.csszengarden.com/>
- Note
 - No change to the html file
 - Only different css files are applied

TERMINOLOGY REPETITION

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- Html **elements**
 - Consist of **tags**

TERMINOLOGY REPETITION

- Html **elements**
 - Consist of **tags**
 - May contain **attributes**

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 - Contain **declarations**

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- Html **elements**
 - Consist of **tags**
 - May contain **attributes**
 - May be empty or not
- CSS **Rules**
 - Contain **selectors**
 - Contain **declarations**
 - Contain a **property**
 - Contain a **value**

CSS CLASSES AND IDS

MOTIVATION

MOTIVATION

- Consider two different tables

MOTIVATION

- Consider two different tables
 - One to display personal information

Name	Peter Bauer
Department	Informatics
School	HTL Leonding
Country	Austria

MOTIVATION

- Consider two different tables
 - One to display personal information
 - Another to display larger data sets

Name	Peter Bauer
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Class	Size	Form Teacher	Average
1AHIF	32	R. Brenn	2.5
1BHIF	32	F. Auernig	1.9
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1DHIF	32	K. Lugmayr	2.0
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Maybe even
more than once

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 - Inline css

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A thing we want to avoid

- Css class

data-table

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HOW TO DEFINE A CLASS

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```
<table class="personal-information">
```


HOWTO DEFINE A CLASS

```
<table class="personal-information">
```



Class attribute

HOWTO DEFINE A CLASS

```
<table class="personal-information">
```



Class attribute

```
table.personal-information {
```


HOWTO DEFINE A CLASS

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```
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Class attribute

Class selector

```
table.personal-information {
```


HOWTO DEFINE A CLASS

```
<table class="personal-information">
```

Class attribute

Class selector

```
table.personal-information {  
    border: 1px solid grey;  
}
```

WHEN TO USE A CLASS?

WHEN TO USE A CLASS?

- Make an Html element addressable from an internal/external Css

WHEN TO USE A CLASS?

- Make an Html element addressable from an internal/external Css
- The Html element may appear more often than once on the page

EXAMPLES FOR CLASSES

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- Elements of a specific type
 - `table.personal_data`, `p.message`

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- Elements in a specific state
 - `p.message.is-error`

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 - table.personal_data, p.message
- Elements in a specific state
 - p.message.is-error



```
<p class = "message is-error">
```


EXAMPLES FOR CLASSES

- Elements of a specific type

- table.personal_data, p.message

<p class = "message is-error">

- Elements in a specific state

- p.message.is-error

- Make general containers (<div>,) more specific

- div.avatar, div.scene

EXAMPLES FOR CLASSES

- Elements of a specific type

- table.personal_data, p.message

`<p class = "message is-error">`

- Elements in a specific state

- p.message.is-error

Especially in WebApps this
will become a topic

- Make general containers (`<div>`, ``) more specific

- div.avatar, div.scene

HOW TO DEFINE AN ID

HOW TO DEFINE AN ID

```
<body id="mainpage">
```


HOW TO DEFINE AN ID

```
<body id="mainpage">
```



Id attribute

HOW TO DEFINE AN ID

```
<body id="mainpage">
```



Id attribute

```
body#mainpage {
```


HOW TO DEFINE AN ID

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Id attribute

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HOW TO DEFINE AN ID

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```

Id attribute

Id selector

```
body#mainpage {
```


HOW TO DEFINE AN ID

```
<body id="mainpage">
```

Id attribute

Id selector

```
body#mainpage {
```

```
    background: yellow;
```

```
}
```

WHEN TO USE AN ID?

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- Make an Html element addressable from an internal/external Css

WHEN TO USE AN ID?

- Make an Html element addressable from an internal/external Css
- The Html element may appear only once on the page

EXAMPLES FOR IDS

- Make pages more specific
 - `body#main-page`, `body#team`
- Special elements only occurring once on a page
 - `article#teaser`

CLASSES AND IDS CAN BE
DEFINED MORE GENERAL

CLASSES AND IDS CAN BE DEFINED MORE GENERAL

- You may omit the html selector

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- You may omit the html selector
- `.error-message { border: 1px solid red; }`
- All elements of class `error-message`

CLASSES AND IDS CAN BE DEFINED MORE GENERAL

- You may omit the html selector
- `.error-message { border: 1px solid red; }`
 - All elements of class `error-message`
- `#mainpage { background: yellow; }`
 - All elements with id `mainpage`

CSS BOX MODEL

BLOCK AND INLINE ELEMENTS

- Block elements take an extra line
 - article, section, p, h1-6, div
- Inline elements are in the “normal” text flow
 - img, strong, em, img, span

BLOCK ELEMENTS

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- Every Html Element can be considered as a box

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- `<h1>CSS Box Model</h1>`

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CSS Box Model

BLOCK ELEMENTS

- Every Html Element can be considered as a box
- `<h1>CSS Box Model</h1>`

```
h1 {
```

```
border: 20px solid grey;
```

CSS Box Model

```
}
```

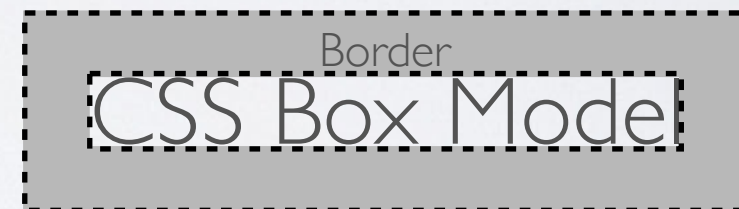

BLOCK ELEMENTS

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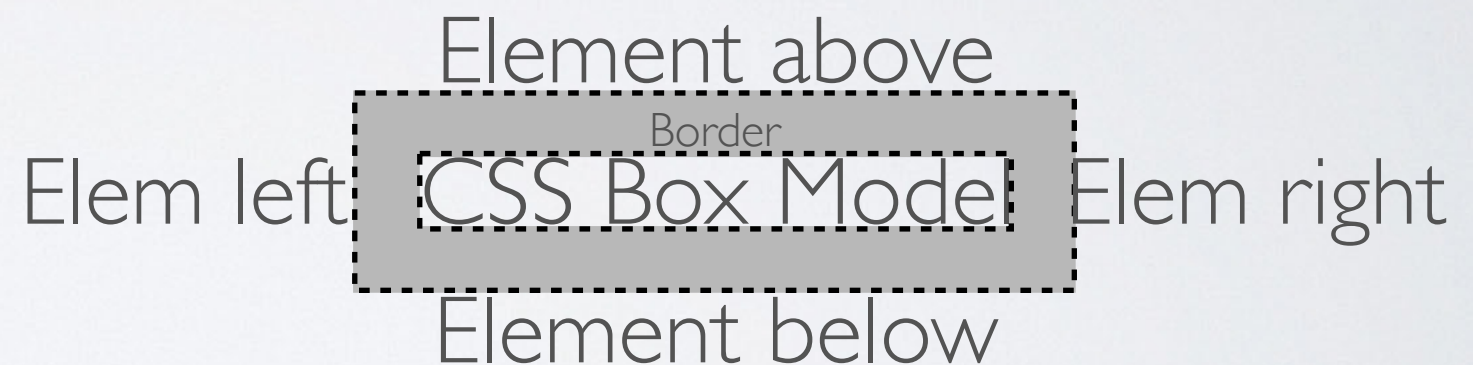
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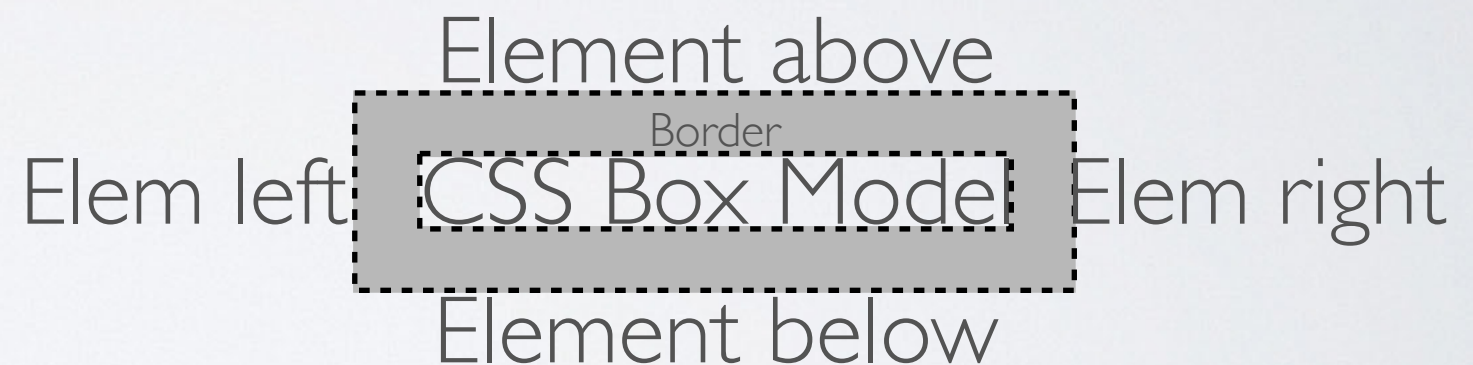
- Every Html Element can be considered as a box
- `<h1>CSS Box Model</h1>`

```
h1 {
```

```
    border: 20px solid grey;
```

```
    padding: 100px;
```

```
}
```



BLOCK ELEMENTS

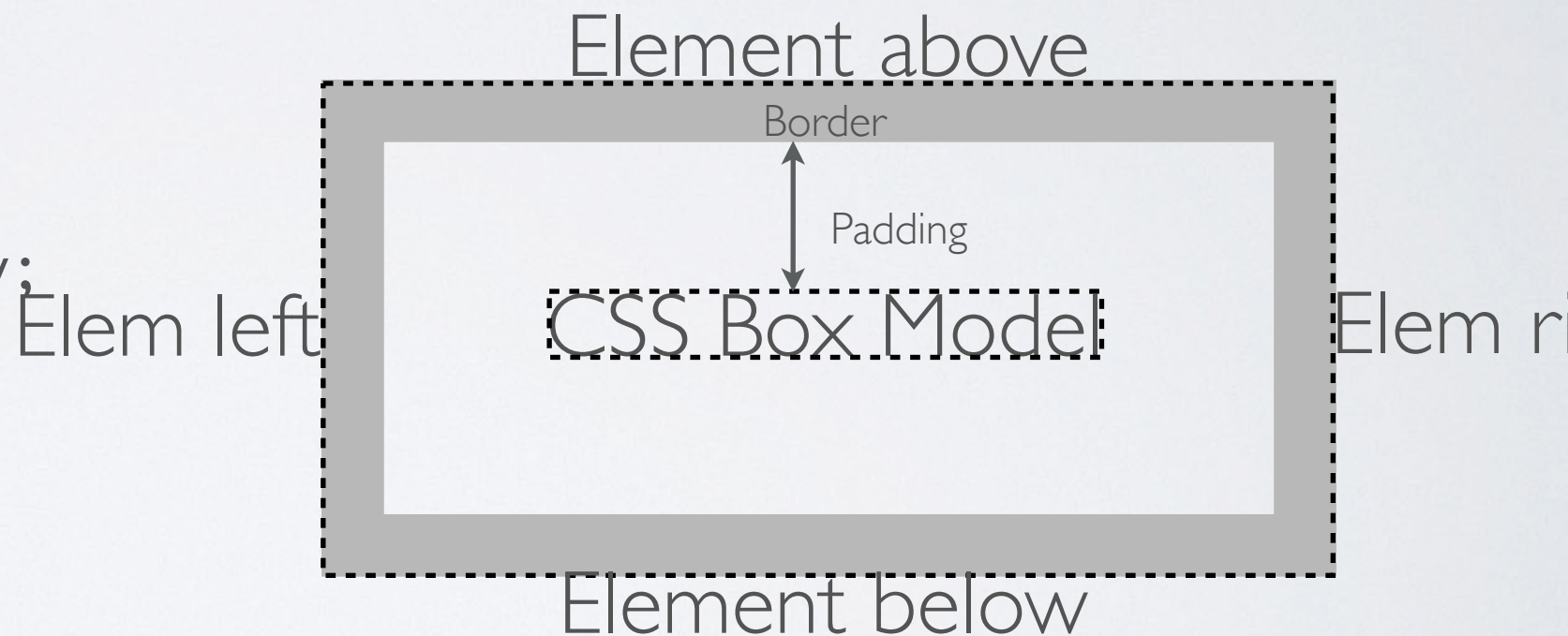
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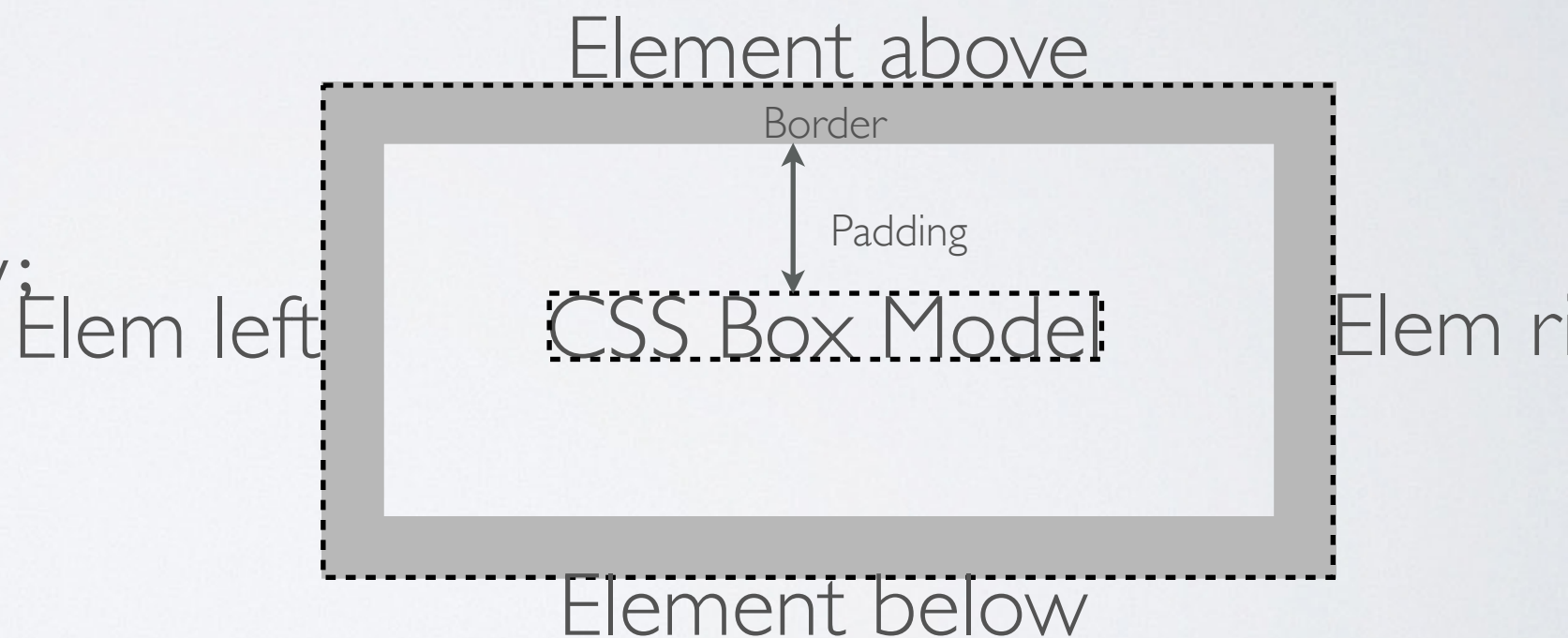
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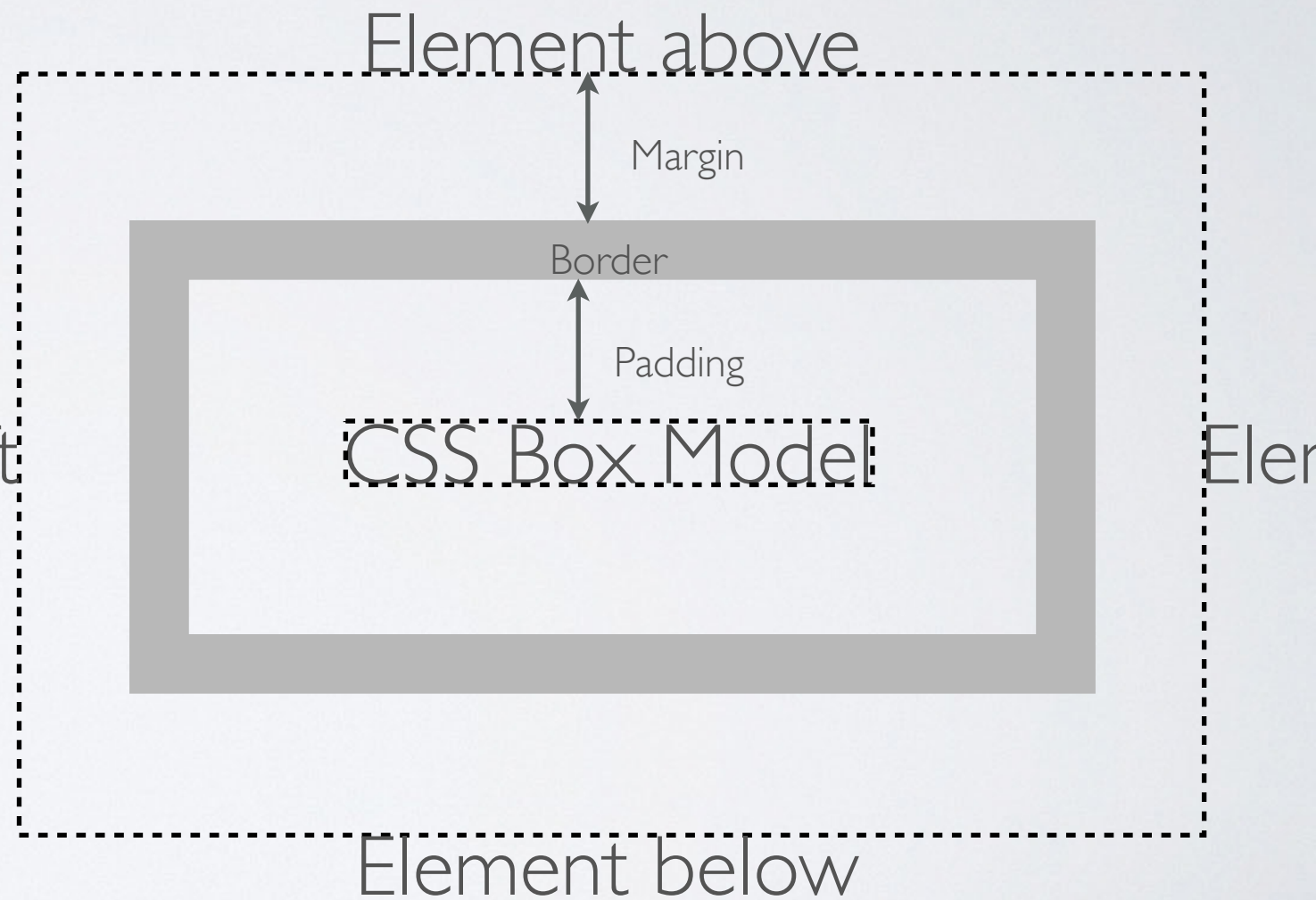
```
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```

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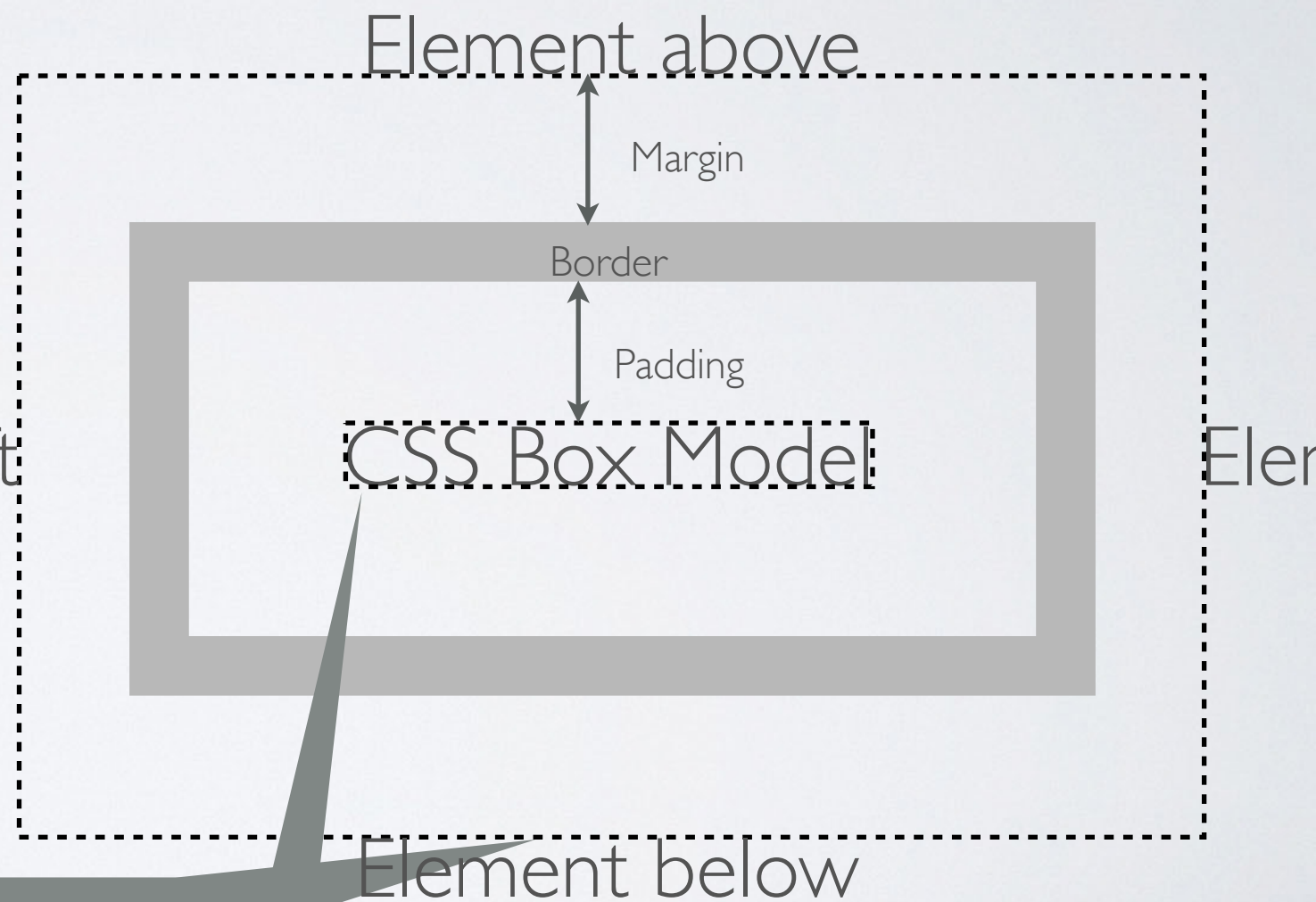
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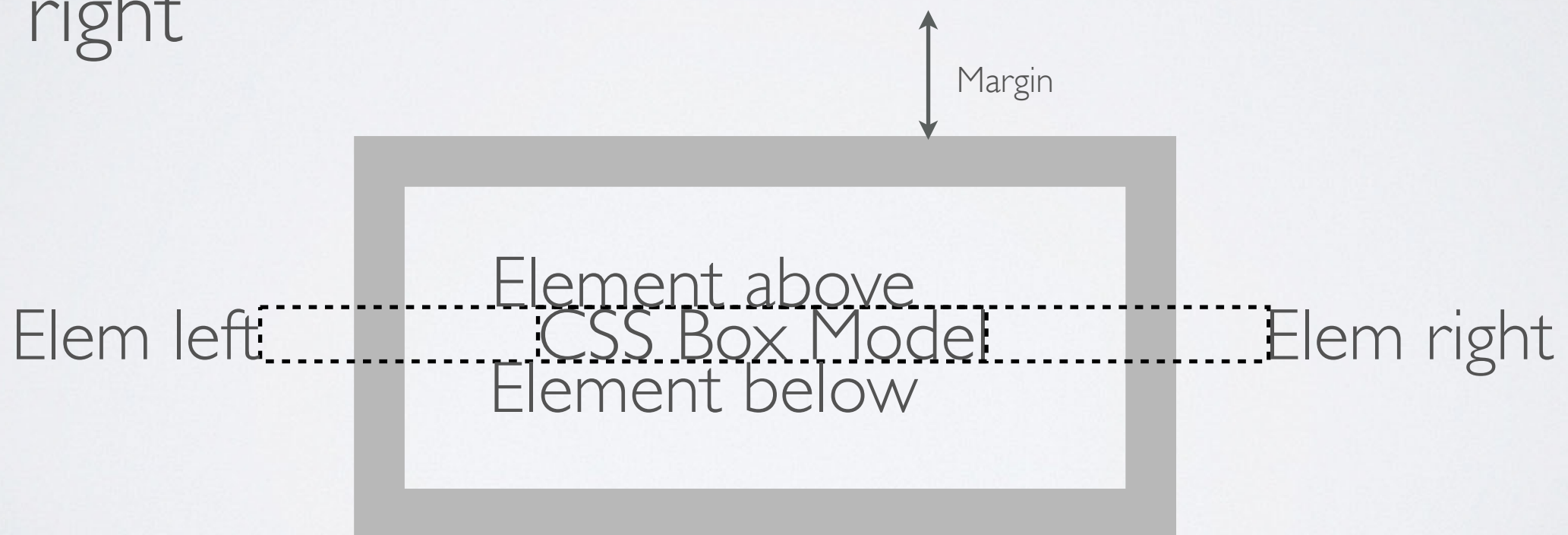
Note: The dotted lines are imaginary lines

INLINE ELEMENTS

- In principal the same
- Surrounding elements move only to the left and to the right

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- Surrounding elements move only to the left and to the right



FLOATING ELEMENTS

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Phone: +43 676 6173320
e-mail: p.bauer@htl-leonding.ac.at
Family Status: Married, 2 children (1999 and 2002)
Citizenship: Austrian



FLOATING ELEMENTS

- All Html elements are in a “text flow”
- That means they all come one after another
- Sometimes this is not desirable
- We want to pull elements out of the text flow

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- We want to pull elements out of the text flow
- They should float

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FLOATING IN ACTION

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```

```


FLOATING IN ACTION

```

```



FLOATING IN ACTION

```

```

```
<table>
```

```
...
```

```
<td>e-mail</td>...
```

```
</table>
```



FLOATING IN ACTION

```

```

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```
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FLOATING IN ACTION

```

```

```
<table>
```

```
...
```

```
<td>e-mail</td>...
```

```
</table>
```

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



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FLOATING IN ACTION

```

```

```
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```

```
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```

```

```
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```

```
...
```

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

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

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FLOATING IN ACTION

```

```

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CLEAR FLOATING

[History](#)

[Products](#)

[Services](#)

[Contact](#)

[Team](#)

CLEAR FLOATING

History

Products

Services

Contact

Team

- Navigation as ul

CLEAR FLOATING

History

Products

Services

Contact

Team

- Navigation as ul
- li elements float left

CLEAR FLOATING

History

Products

Services

Contact

Team

- Navigation as ul
- li elements float left
- Any content after this would ignore the li's

CLEAR FLOATING

History

Products

Services

Contact

Team

Early Years

- Navigation as ul
- li elements float left
- Any content after this would ignore the li's

CLEAR FLOATING

History

Products

Services

Contact

Team

Early Years

- Navigation as ul
- li elements float left
- Any content after this would ignore the li's
- `section { clear: left }`

CLEAR FLOATING

History

Products

Services

Contact

Team

Early Years

- Navigation as ul

- li elements float left
- Any content after this would ignore the li's
- `section { clear: left }`

CLEAR FLOATING

History

Products

Services

Contact

Team

Early Years

- Navigation as ul

- li elements float left

clear: right or clear: both

- Any content after this would ignore the li's

- `section { clear: left }`

DEBUGGING

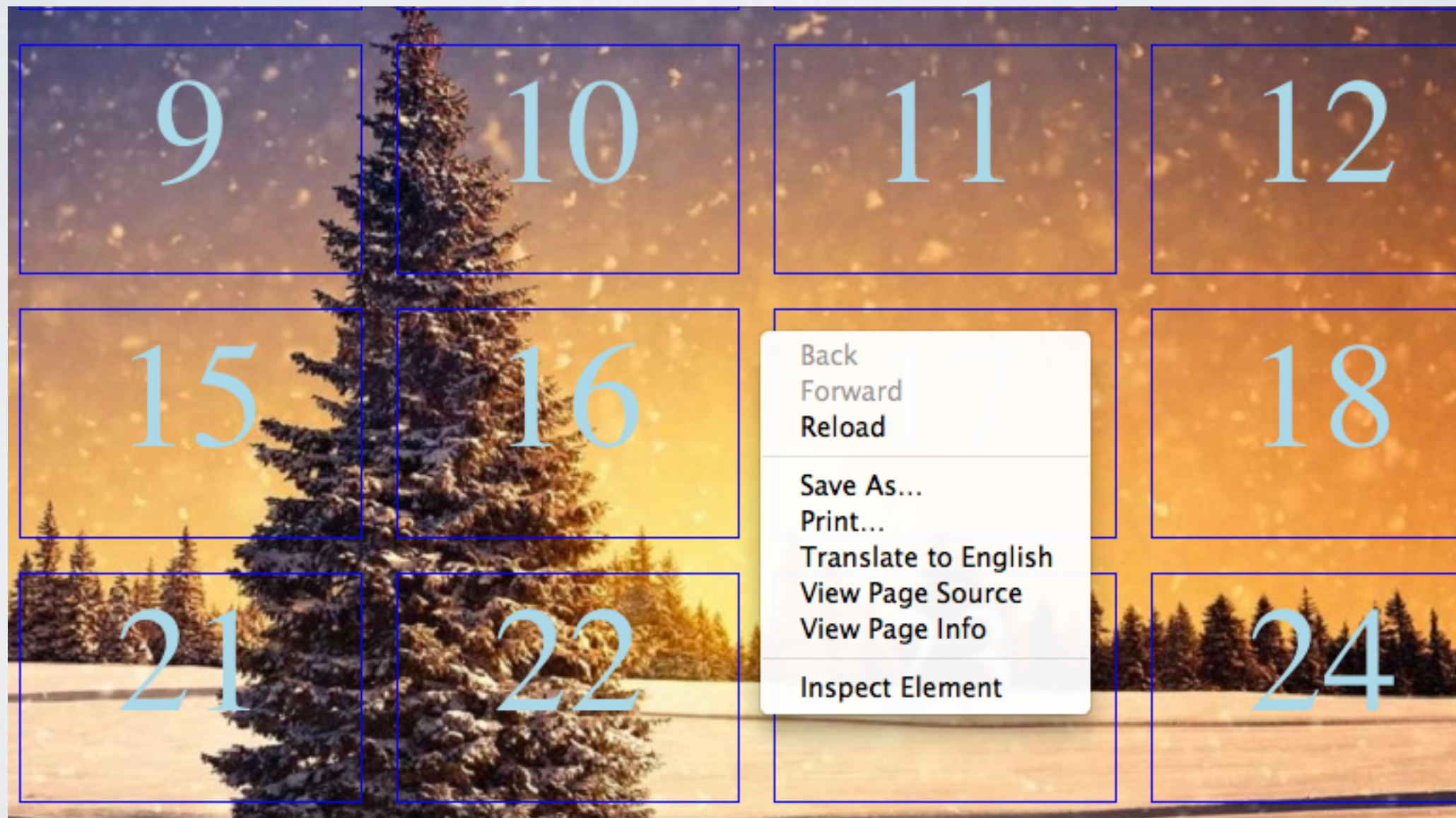
INSPECT ELEMENT

- It is useful to look into the Html elements as the browser sees it
- “Debugging”
 - What size is this element?
 - Which Css rule does apply to this element?
 - How would it be if a Css rule wouldn't be there?
 - ...

THE BROWSER HELPS

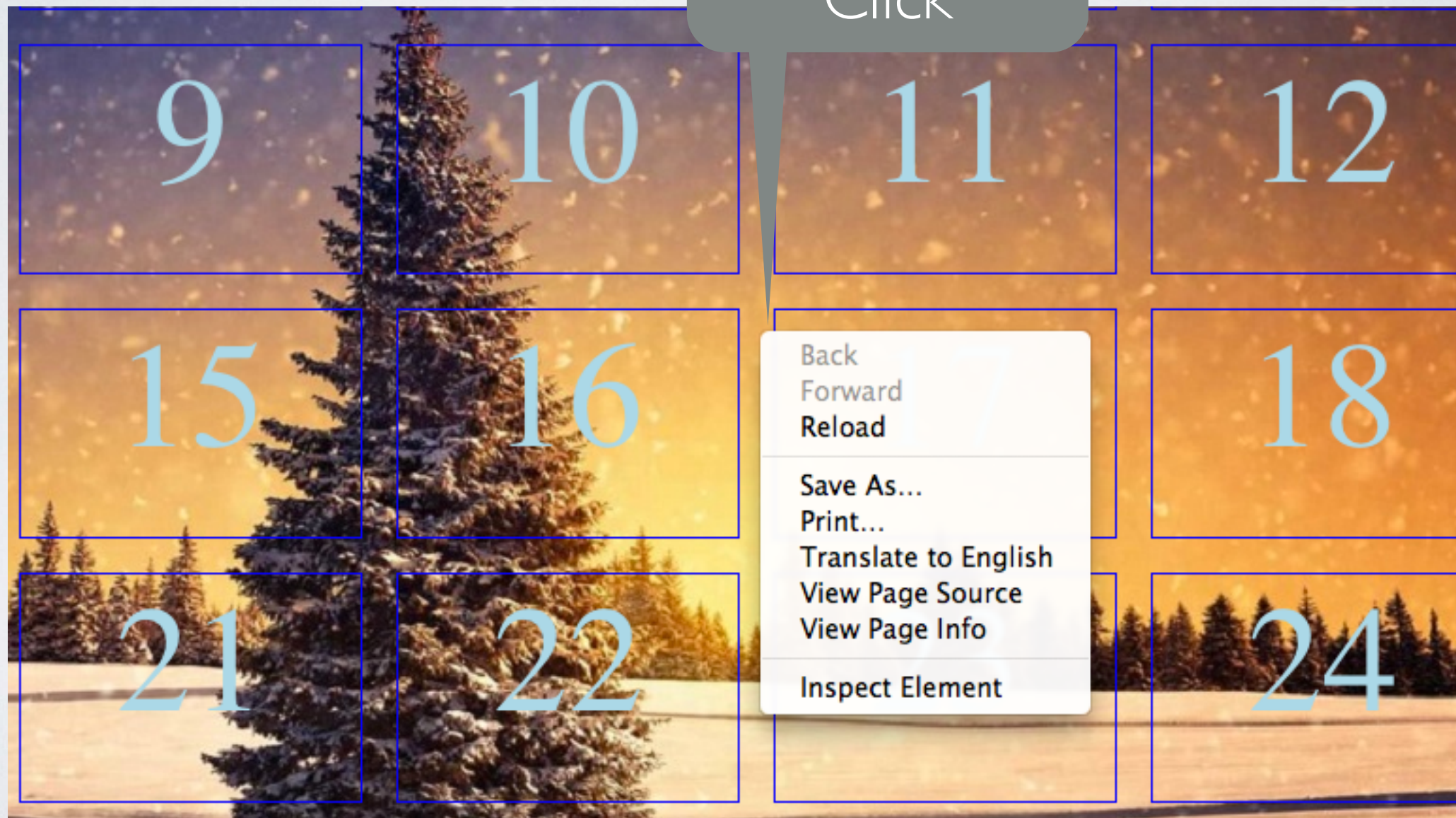
- Nowadays all browsers support this kind of debugging
- Firefox was the first with the plug-in “Firebug”

INSPECT ELEMENT – START

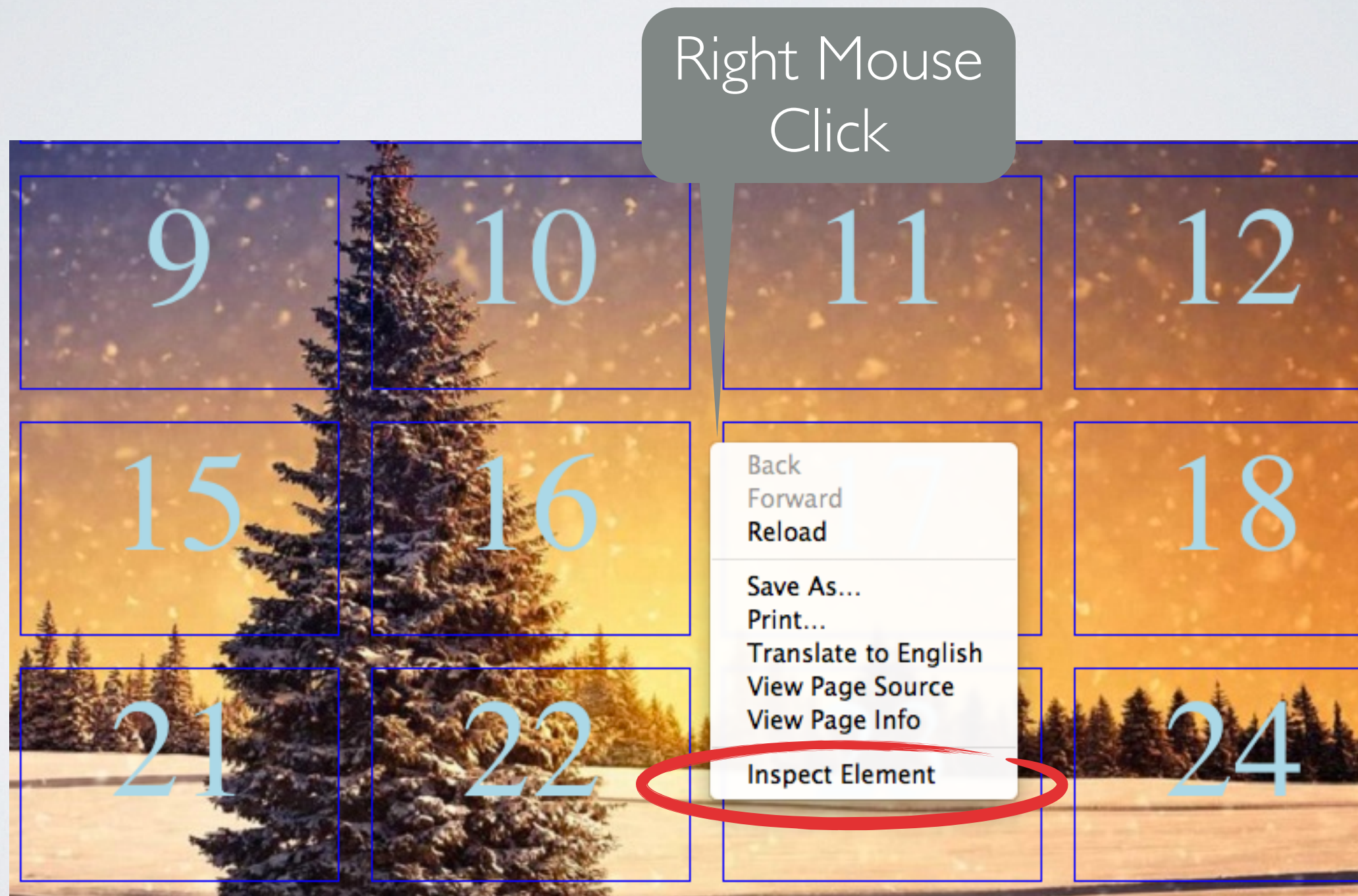


INSPECT ELEMENT – START

Right Mouse
Click



INSPECT ELEMENT – START



DEMO

- Site with four pages
 - Two tables for showing css classes
 - Navigation for showing ids
 - Playing around with block and inline elements and their borders and paddings
 - Float some image and clear it afterwards
 - Debug now and then to see what is going on