KAZAKH KBTU BRITISH
TECHNICAL
UNIVERSITY

WEB DEVELOPMENT

Lesson 2

Web development roadmap

https://github.com/kamranahmedse/developer-roadmap

http://info.cern.ch/

World Wide Web — Tim Berners-Lee (1989)

<**H**yper**t**ext **M**arkup **L**anguage>

http://htmlbook.ru/html

HTML Elements

- Headings
- Paragraphs
- Links
- Images
- Buttons
- Lists
- Tables
- …

http://htmlbook.ru/html

Element attributes

- id
- class
- style
- data-
- title

http://htmlbook.ru/

HTML Comments

```
<!-- This is a comment -->

<p>This is a paragraph.</p>

<!-- Remember to add more information here -->
```

http://htmlbook.ru/

HTML Forms

- Text input
- Radio button
- Checkbox
- Submit
- Select option
- Textarea
- Button
- Label

HTML Form Input Types

- Text
- Password
- Submit
- Reset
- Radio
- Checkbox
- Button

HTML Form Input Types

- Text
- Password
- Submit
- Reset
- Radio
- Checkbox
- Button
- File

HTML5 Input Types

- color
- date
- datetime-local
- email
- month
- number
- range
- search
- tel
- time
- url
- week

HTML Form Attributes

- value
- readonly
- disabled
- size

HTML5 Attributes

- autocomplete
- autofocus
- height and width
- min and max
- multiple
- pattern (regexp)
- placeholder
- required

HTML5

- Semantic HTML — header, footer, article, section, nav
- Form attributes — date, number, range
- Graphical elements — svg, canvas
- Multimedia elements — audio, video

https://www.w3schools.com/html/html5_new_elements.asp

Style guide: https://www.w3schools.com/html/html5_syntax.asp

Typical HTML4	Typical HTML5
	<header>
	<nav>
	<section>
	<article>
	<footer>

Cascading **S**tyle **S**heets

http://htmlbook.ru/css

https://html5book.ru/css-css3

CSS can be added:

1. Inline
2. Internal
3. External

http://htmlbook.ru/css

https://html5book.ru/css-css3

CSS can be added:

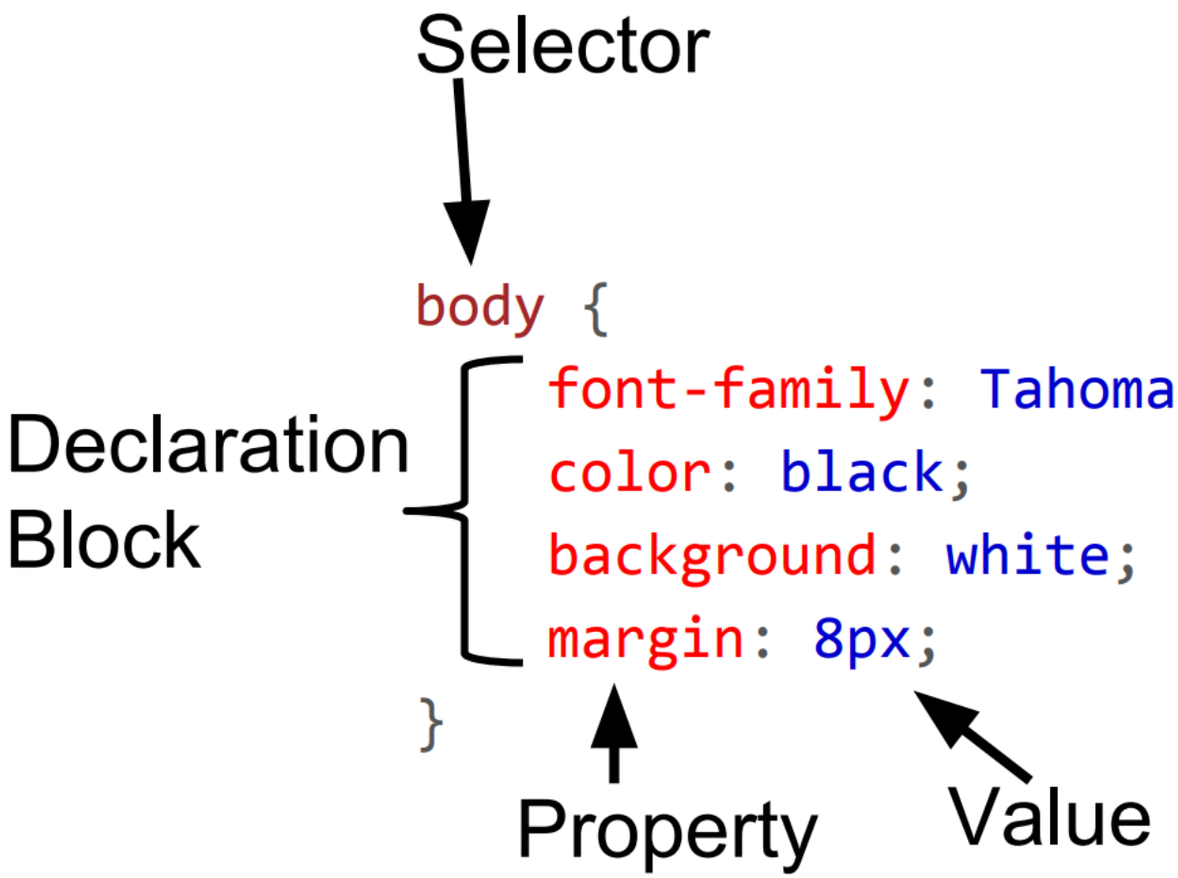
- font
- border
- padding
- margin
- with *id / class*

http://htmlbook.ru/css

https://html5book.ru/css-css3

DRY principle: Don't Repeat Yourself

Style sheet contain one or more CSS Rules



CSS Selector	CSS	HTML
Tag name	`h1 { color: red; }`	`<h1>Today's Specials</h1>`
Class attribute	`.large { font-size: 16pt; }`	`<p class="large">...`
Tag and Class	`p.large {...}`	`<p class="large">...`
Element id	`#p20 { font-weight: bold; }`	`<p id="p20">...`

CSS Pseudo Selectors

```
p:hover, a:hover {
  background-color: yellow;
}

a:visited {
  color: green;
}

a:link {
  color: blue;
}
```

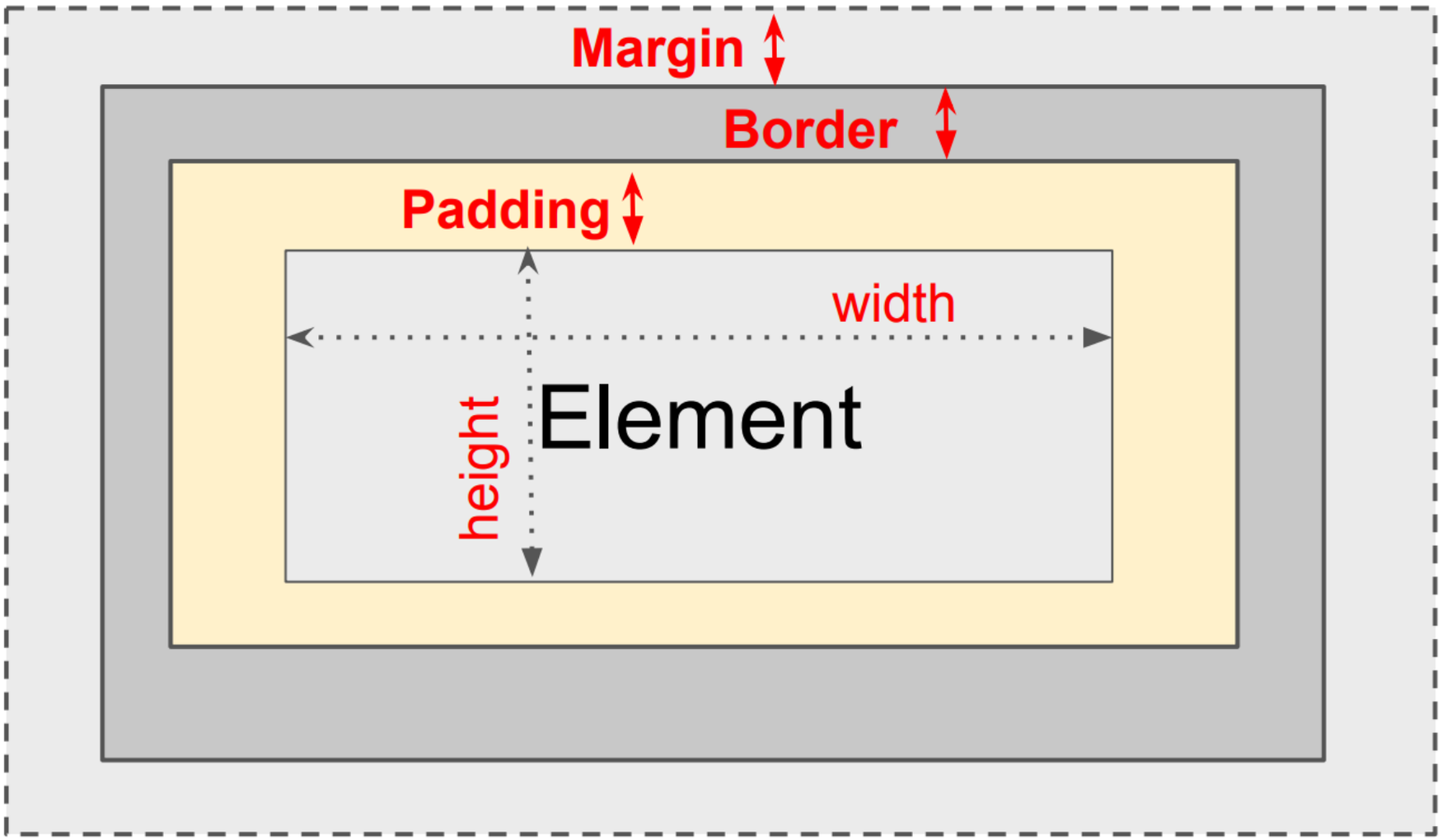
Colors

- Predefined names: **`red, blue, green, white, etc.`**
- 8-bit hexadecimal numbers for red, green, blue: `#ff0000` →

- 0-255 decimal intensities: `rgb(255,255,0)` →

- Percentage intensities: `rgb(80%,80%,100%)` →

CSS Box Model



Total element width =
width +
left padding +
right padding +
left border +
right border +
left margin +
right margin

Margin & Padding
Transparent

CSS distance units

Absolute	
2px	pixels
1mm	millimeters
2cm	centimeters
0.2in	inches
3pt	printer point 1/72 inch
Relative	
2em	2 times the element's current font size
3rem	3 times the root element's current font size

Size Properties - Element, pad, margin, border

width - Override element defaults
height

padding-top
padding-right
padding-bottom
padding-left

margin-top
margin-right
margin-bottom
margin-left

```
border-bottom-color
border-bottom-style
border-bottom-width
border-left-color
border-left-style
border-left-width
border-right-color
border-right-style
border-right-width
```

etc.

```
p {
  border: 5px solid red;
}
```

`position` property

`position: static;`	(default) - Position in document flow
`position: relative;`	Position relative to default position via `top`, `right`, `bottom`, and `left` properties
`position: fixed;`	Position to a fixed location on the screen via `top`, `right`, `bottom`, and `left` properties
`position: absolute;`	Position relative to ancestor `absolute` element via `top`, `right`, `bottom`, and `left` properties

Fixed position (0,0) is top left corner

Element visibility control properties

`display: none;` - Element is not displayed and takes no space in layout
`display: inline;` - Element is treated as an inline element.
`display: block;` - Element is treated as an block element.
`display: flex;` - Element is treated as an flex container.
`display: grid;` - Element is treated as an grid container.

`visibility: hidden;` - Element is hidden but space still allocated.
`visibility: visible;` - Element is normally displayed

Questions?