



Front-End crash course
for Java developers

Author



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Core UI team



piotrl.net

Resources

<https://github.com/infoshareacademy/jjdd5-materialy-frontend>

/resources – presentation

/exercices – assignments & challenges

/1-html

/2-css

/3-bootstrap

Goals of workshop

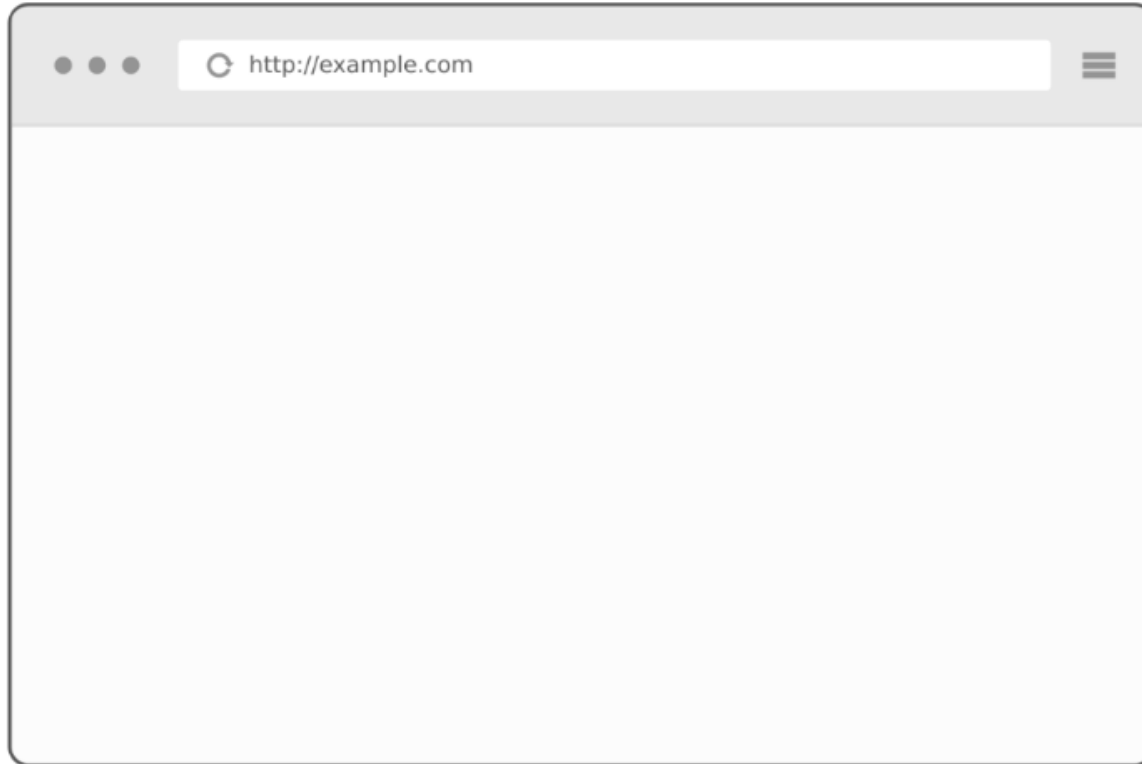
1. Produce good-looking simple websites
2. Understand: How webpages works?
3. How to learn and improve skills?

Table of Content

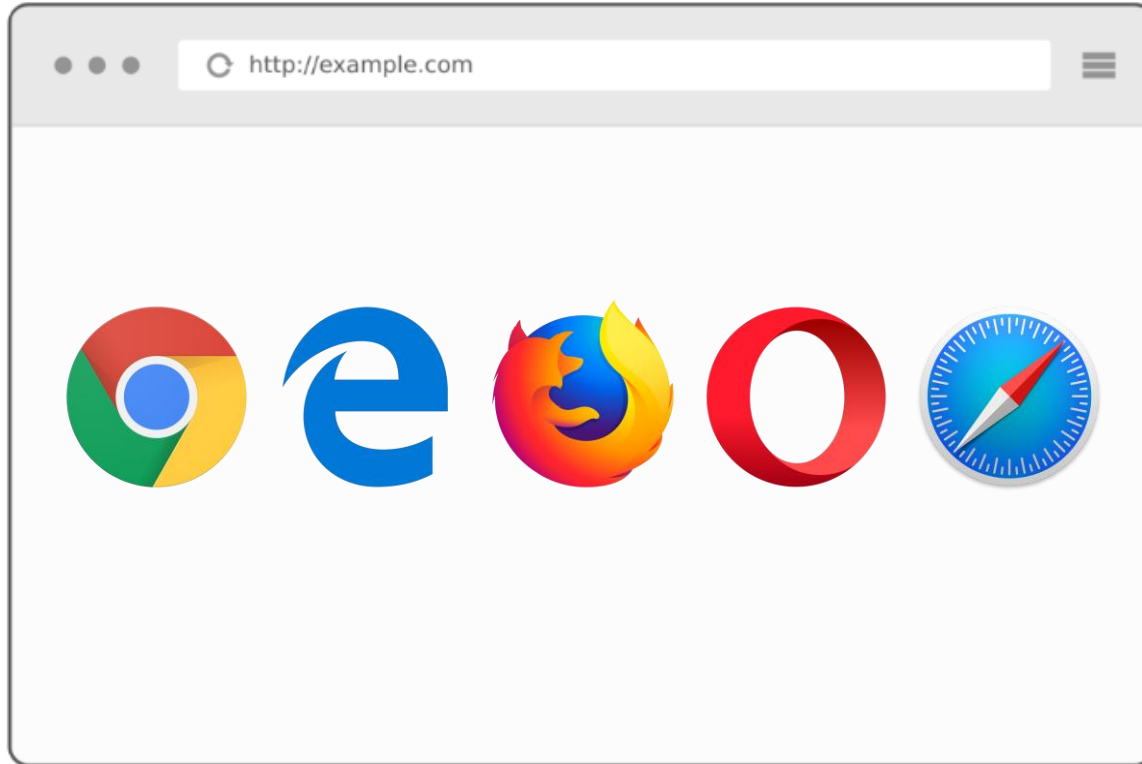
- 1.** Web architecture
- 2.** HTML & CSS training
- 3.** Bootstrap
 - a.** Layout
 - b.** Tables & Forms
 - c.** Components

Front-end

All about browsers



All about browsers



All about browsers

Browser responsibility is to...

download and **render** web page resources

Front-end vs Back-end



Front-end developer



Front-end technologies

A teal-colored shield-shaped icon with a slight 3D effect and a shadow, containing the text 'HTML' in white.

HTML

A red-colored shield-shaped icon with a slight 3D effect and a shadow, containing the text 'CSS' in white.

CSS

A purple-colored shield-shaped icon with a slight 3D effect and a shadow, containing the text 'JS' in white.

JS

Poszukujemy developera HTML i CSS



Dla naszego klienta, Kociej Fabryki, **poszukujemy zdolnego programisty** stron internetowych w HTML i CSS. Oferujemy przyzwoite zarobki, worek karmy i zabawek.

Nie czekaj, napisz teraz! Nasza zwariowana ekipa czeka na Ciebie!

HTML

<h1>Poszukujemy developera HTML i CSS</h1>

<p>Dla naszego klienta, Kociej Fabryki, poszukujemy zdolnego programisty stron internetowych w HTML i CSS. Oferujemy przyzwoite zarobki, worek karmy i zabawek.</p>

<p>Nie czekaj, napisz teraz! Nasza zwariowana ekipa czeka na Ciebie!</p>



Challenge

First HTML page

See:

`1-initial-website/README.md`

Web pages



Challenge

1. Go to infoshareacademy.com
2. Open dev-tools: F12
3. Find logo in HTML structure

What user sees



Trenerzy

Zespół

Blog

Kontakt

Rodzaje kursów

Miasta i terminy

Finansowanie

Szkolenia dla firm

Szkolimy PROGRAMISTÓW



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What browser sees



Trenerzy Zespół Blog Kontakt

Rodzaje kursów Miasta i terminy Finansowanie Szkolenia dla firm

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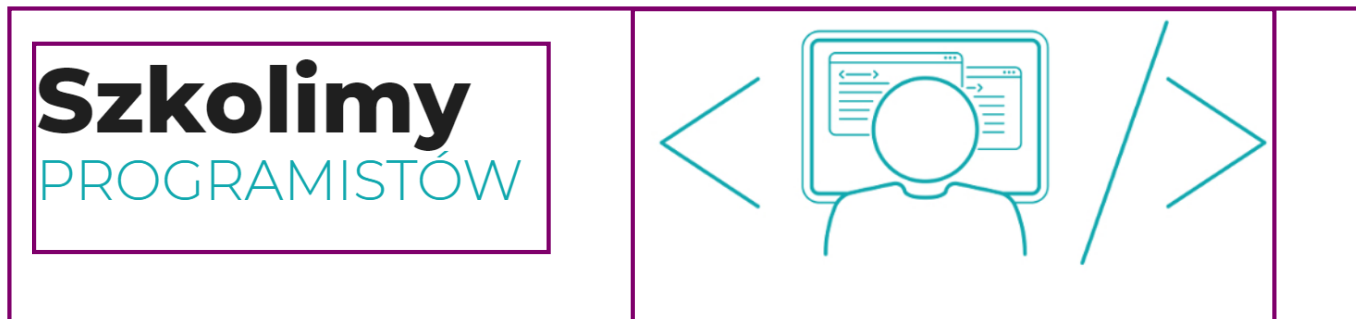
DESMART



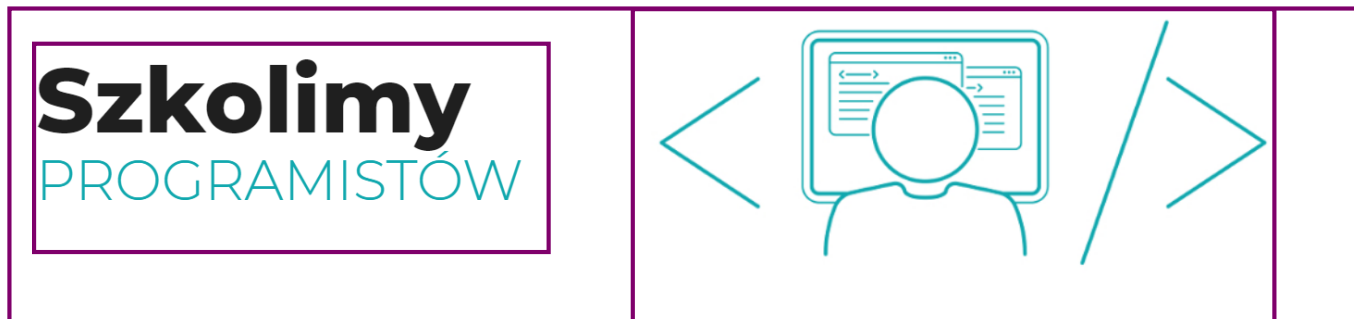
What browser sees



What browser sees



What browser sees





Challenge

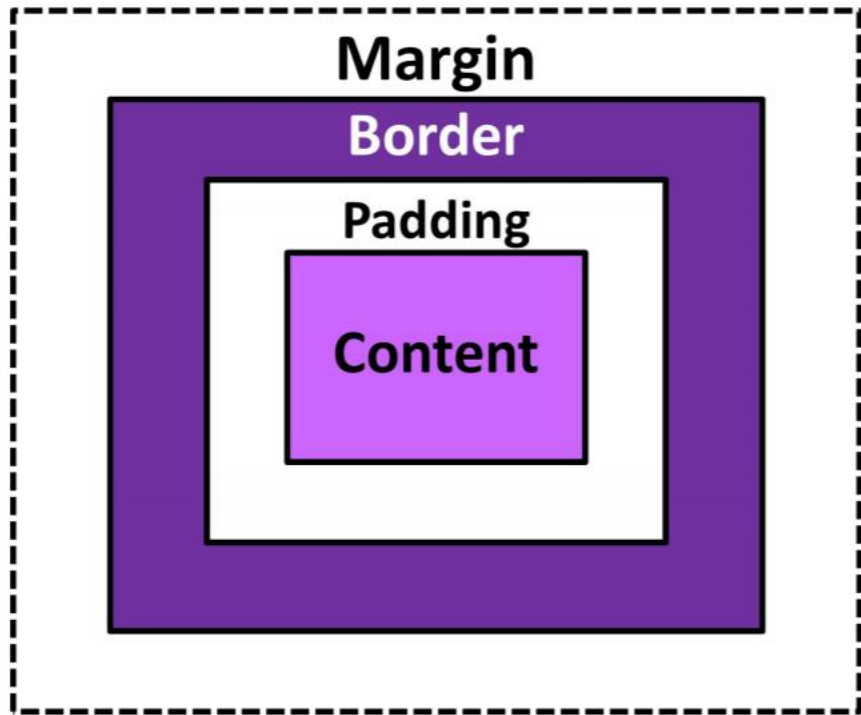
1. Go to infoshareacademy.com
2. Open dev-tools: F12
3. Find all images `` (CTRL+F)
4. How many `` tags?



Box model

Each element has...

- ... Height
- ... Width
- ... Padding
- ... Border
- ... Margin



Developer responsibility?

1. Arrange boxes here and there

2. Set colors

.... so boxes looks like real website 😊

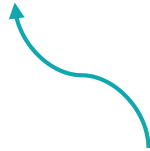
Browsers vs Java

Controlled by programmer



Java **compiles** program **BEFORE** run

Browser **interpretes** code **DURING** loading



Controlled by user

Can I use this feture?

Can I use animations ? ⚙ Settings

3 results found

Web Animations API 📄 - WD

Lets you create animations that are run in the browser and as well as inspect and manipulate animations created through declarative means like CSS.

Usage	% of all users	
Poland	0.2%	+ 87.98% = 88.18%
Global	0.18%	+ 73.9% = 74.07%

Current aligned Usage relative Date relative Show all

IE	Edge *	Firefox	Chrome	Safari	iOS Safari *	Opera Mini *	Chrome for Android	UC Browser for Android	Samsung Internet
			2 67						2 4
			2 68						2 6.2
11	17	2 61	2 68	4 11.1	4 11.4	all	2 67	2 11.8	2 7.2
	18	2 62	2 69	4 12	4 12				



HTML tags (a few)



```
<h1> Hello World! </h1>
```

```
<h2> Hello World! </h2>
```

```
<em> Hello World! </em>
```

```
<strong> Hello World! </strong>
```

```
<div> Hello World! </div>
```

```
<span> Hello World! </span>
```

HTML – attributes

attribute name



```
<article id="first"><h1>...</h1></article>
```



attribute value

HTML – nested tags

```
<header>  
  <h1 class="headline"> Hello World! </h1>  
</header>
```

HTML – navigation

```
<ul>  
  <li>Trainers</li>  
  <li>Lessons</li>  
  <li>Career</li>  
</ul>
```


HTML – full structure

HTML – structure

```
<!DOCTYPE html>  
<html lang="pl">  
  <head>  
    <meta charset="utf-8">  
    <title>infoShare Academy</title>  
  </head>  
  <body>  
    . . .  
  </body>  
</html>
```

HTML – head

Information about the page.

Not visible for user

Important for browser

<head>

<meta charset="utf-8">

<title>infoShare Academy**</title>**

<link rel="stylesheet" src="style.css" />

<script>*/* JS code */***</script>**

</head>



Challenge

First HTML page

See:

`2-valid-website/README.md`

? The most popular HTML tag?

1. ``

2. `<a>`

3. `<div>`

4. `<h1>`



Challenge

1. Go to infoshareacademy.com
2. Open sources of website
3. Analyse <head>
4. What is downloaded in Network tab?



What is CSS?

Responsible for **visual** part of website

CSS tells **how** HTML is **presented**

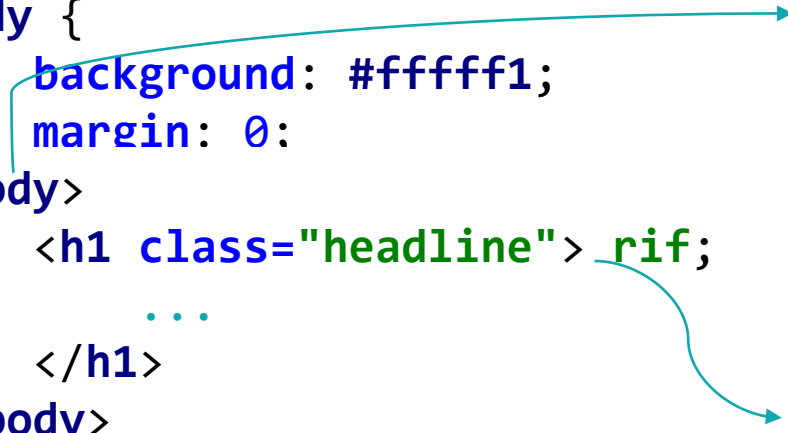
Programming languages?

No.

HTML and CSS is only **set of rules**
that browser **interprets**

Show the code!

```
body {  
    background: #ffffff1;  
    margin: 0;  
<body>  
    <h1 class="headline"> rif;  
    ...  
    </h1>  
</body>  
    color: blue;  
    font-weight: bold;  
}
```



Show the code!

```
<body>  
  <h1 class="headline">  
    ...  
  </h1>  
</body>
```

```
body {  
  background: #ffffff1;  
  margin: 0;  
  padding: 40px;  
  font-family: Arial, serif;  
}  
  
.headline {  
  color: blue;  
  font-weight: bold;  
}
```

How to „install” CSS?

<head> is your friend

```
<link rel="stylesheet" href="styles.css" />
```



Challenge

Attach CSS into HTML

See:

`1-basic-css/README.md`

CSS structure

```
#headline {  
    width: 50%;  
}
```

```
a.external {  
    font-weight: bold;  
    color: green;  
}
```

```
p, img {  
    border: 5px solid blue;  
}
```

CSS structure

selector



```
p, img {  
  border: 5px solid blue;  
}
```



property



value

What can be done with CSS?

Layout

// width

// height

// display

// background

...

What can be done with CSS?

Box model

// border

// padding

// margin

...

What can be done with CSS?

Text & Typography

// color

// font

// font-size

...



cssreference.io

CSS Reference is **free** and always will be!

Please whitelist us in your ad blocker.

Thank you! 😊

A free visual guide to CSS

Learn by example: cssreference.io is a free visual guide to CSS. It features the most popular **properties**, and explains them with illustrated and animated **examples**.



New!

My 44-page ebook "CSS in 44 minutes" is out! 😊

Get it now →

Collections: [Animations](#) [Backgrounds](#) [Box model](#) [Flexbox](#) [CSS Grid](#) **New!** [Positioning](#) [Transitions](#) [Typography](#)

🔍 Search 129 CSS properties

[align-content](#)

flexbox

[align-items](#)

flexbox

[align-self](#)

flexbox

[animation-delay](#)

animations

[animation-direction](#)

animations

[animation-duration](#)

animations



Challenge

Train your CSS skills

See:

`2-css-priorities/README.md`

Understand CSS priorities

What color will
the link be?

```
a {  
    color: green;  
}
```

```
a.link {  
    color: red;  
}
```

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

Understand CSS priorities

HTML CSS Result

test

test with class

[► Live demo](#)



Challenge

Train your CSS skills

See:

`3-css-priorities/README.md`



Bootstrap

by Twitter

Table of Content

1. What & Why
2. Bootstrap installation
3. Bootstrap grid
4. Popular components



Bootstrap

CSS framework helps build websites:

// Quickly

// Good looking

// Mobile-friendly



Why bootstrap?

// Easy to learn

// Conventions and best-practices

// Industry standard



Bootstrap includes

// CSS classes

// JS scripts

// Example templates

// Grid layout model

// Components

// Utility text classes



Challenge

First step to bootstrap!

See:

`1-bootstrap-init/README.md`



Bootstrap

Grid system



Bootstrap layout



```
<div class="container">  
  <!-- Content here -->  
</div>
```

How grid works



Trenerzy

Zespół

Blog

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Finansowanie

Szkolenia dla firm

Szkolimy PROGRAMISTÓW



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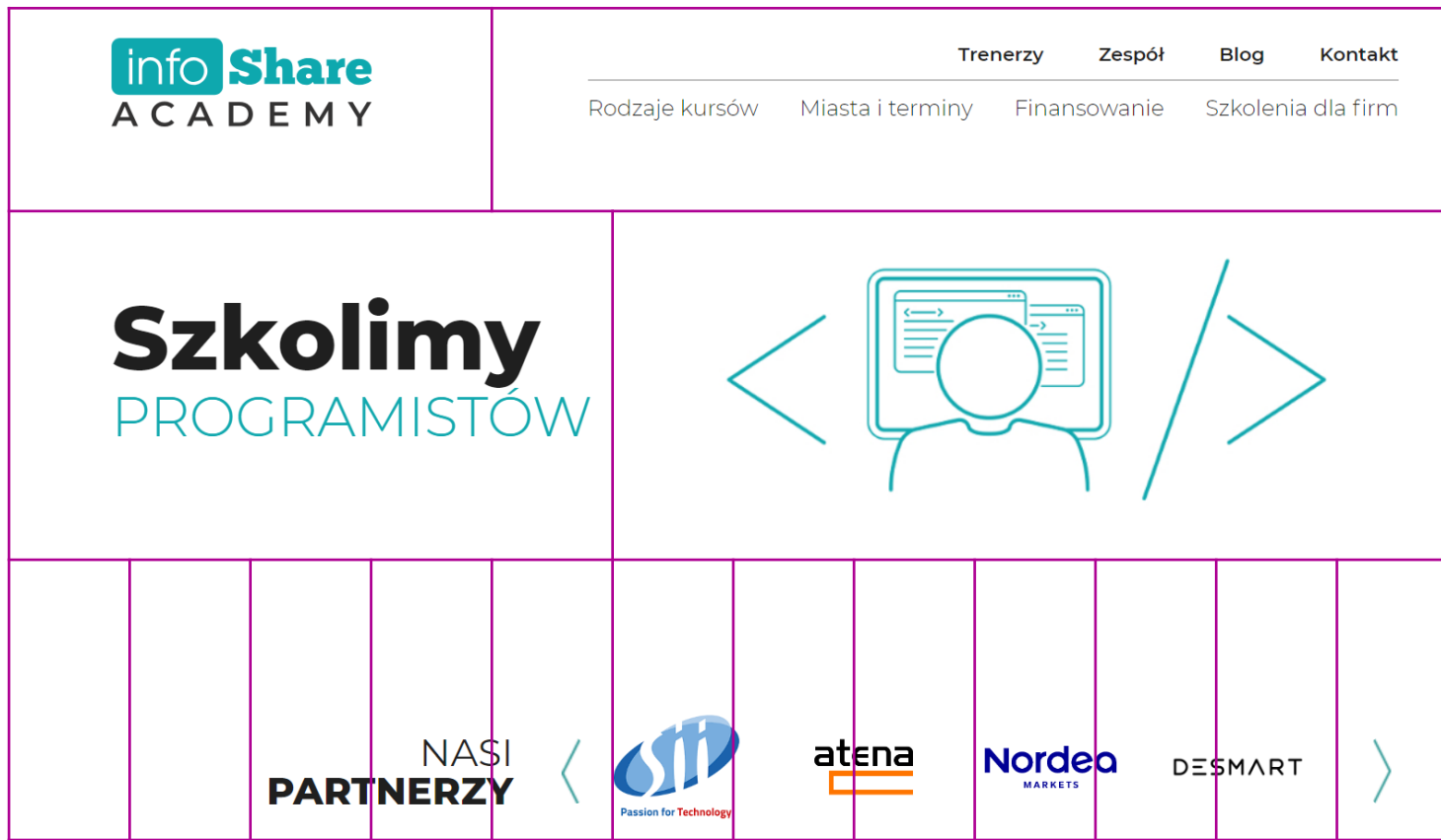
How grid works



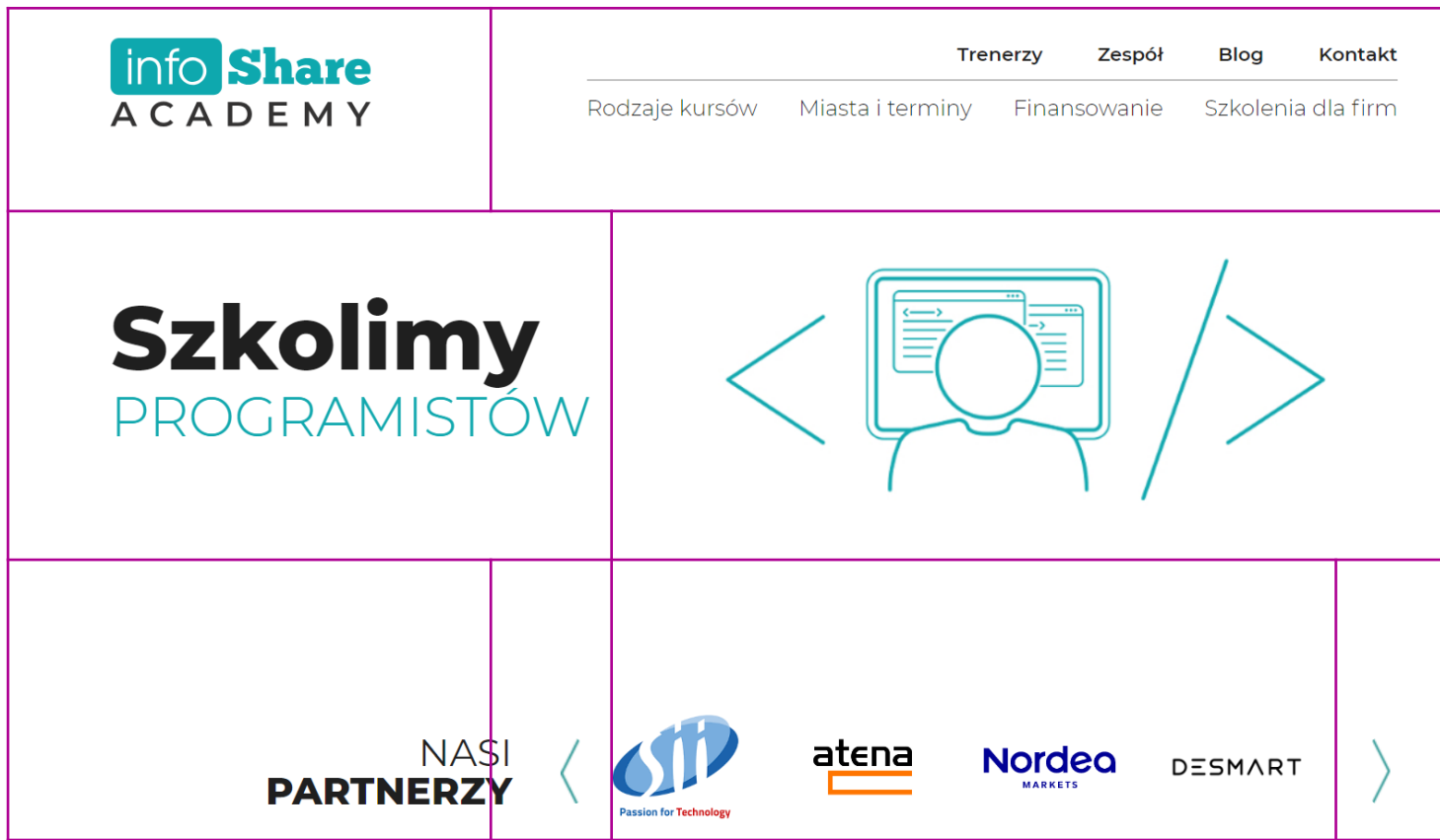
How grid works

				Trenerzy		Zespół		Blog		Kontakt	
				Rodzaje kursów		Miasta i terminy		Finansowanie		Szkolenia dla firm	
<h1>Szkolimy</h1> <h2>PROGRAMISTÓW</h2>											

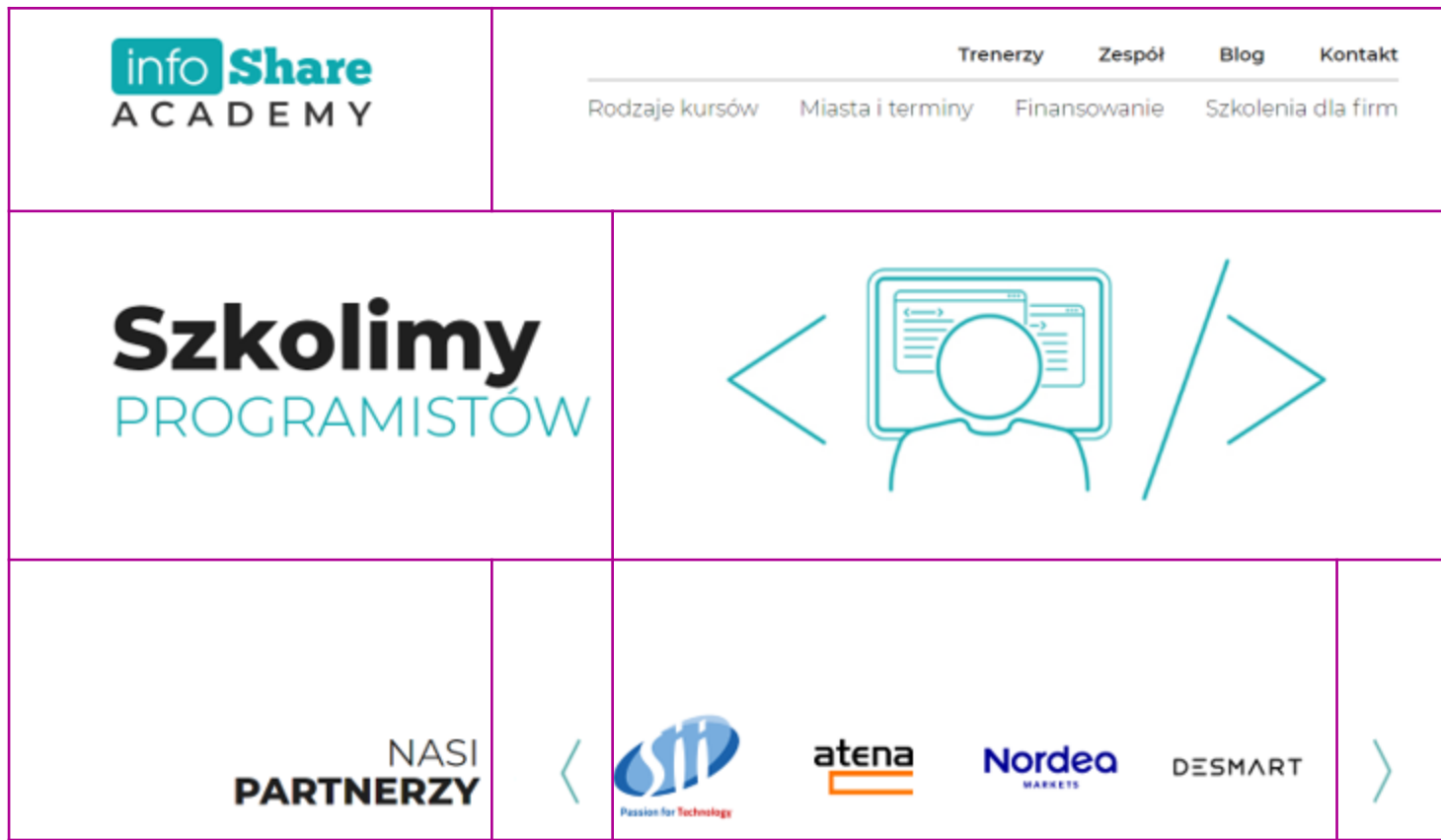
How grid works



How grid works

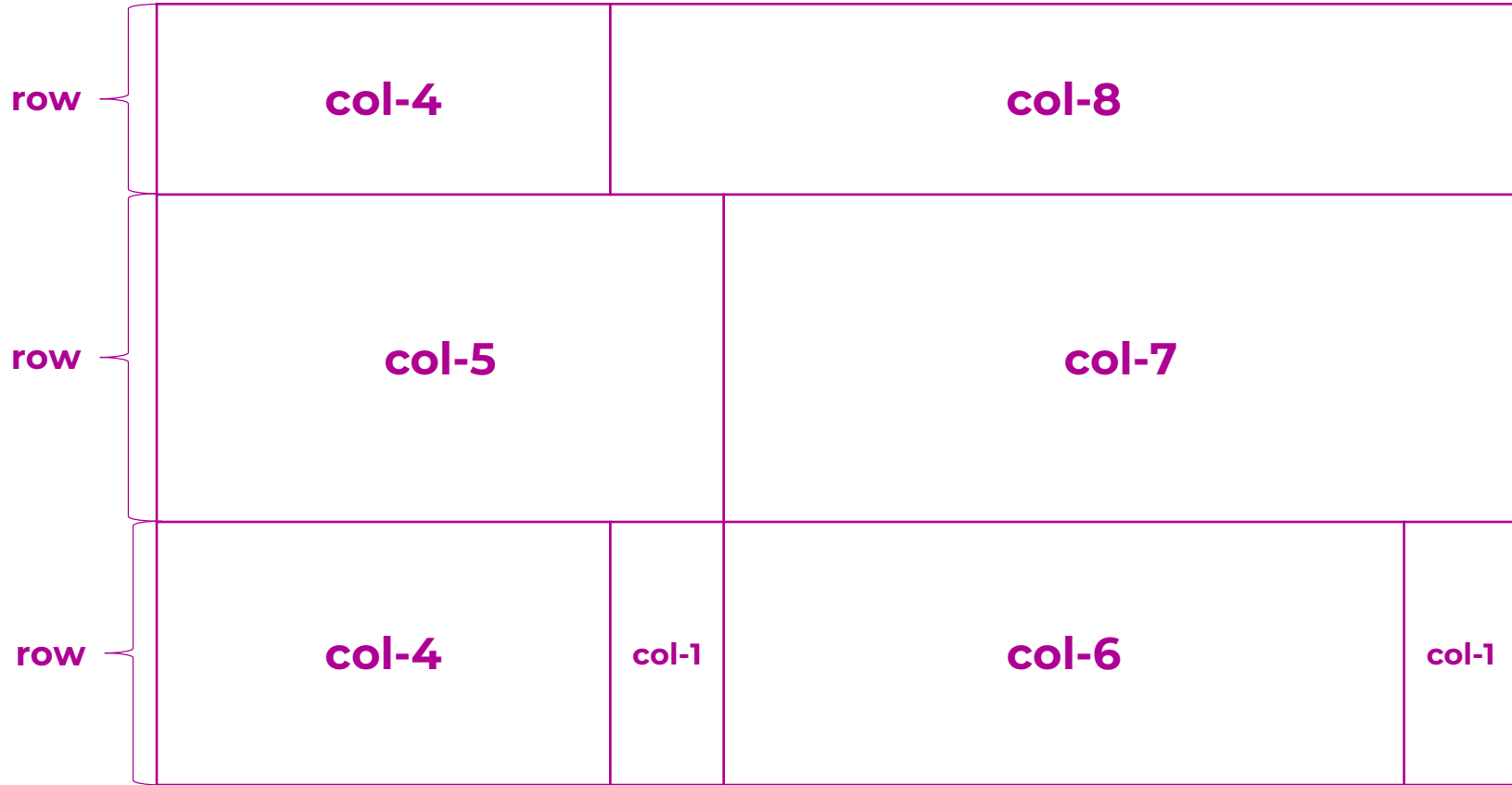


How grid works



.container

.container



```
<div class="row">  
  <div class="col-4"> Logo </div>  
  <div class="col-8"> Menu </div>  
</div>
```

```
<div class="row">  
  <div class="col-5"> Slogan </div>  
  <div class="col-7"> Image </div>  
</div>
```



```
<div class="row">  
  <div class="col-4"> Partners </div>  
  <div class="col-1"> ← </div>  
  <div class="col-6"> logos </div>  
  <div class="col-1"> → </div>  
</div>
```



Challenge

Grid in action

See:

`2-bootstrap-grid/README.md`



Bootstrap

Components

Popular components

// Buttons

// Alerts

// Forms

// Tables

// Navigation

Buttons



```
<button type="button" class="btn btn-success">  
    Success  
</button>
```

```
<button type="button" class="btn btn-danger">  
    Danger  
</button>
```

Alerts

Error

- Błędny adres email

```
<div class="alert alert-danger">
```

```
...
```

```
</div>
```



Bootstrap

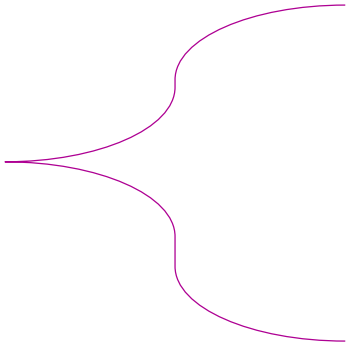
Tables

Tables (doc)

#	First	Last	Handle
1	Mark	Otto	@mdo
2	Jacob	Thornton	@fat
3	Larry	the Bird	@twitter

Tables (doc)

```
<table class="table">
  <thead>
    <tr>
      <th>#</th>
      <th>First</th>
      <th>Last</th>
    </tr>
  </thead>
  ...
</table>
```



```
<tbody>
  <tr>
    <th>1</th>
    <td>Mark</td>
    <td>Otto</td>
  </tr>
</tbody>
```



Bootstrap

Forms

Forms (doc)

Email address

mail@piotrl.net



We'll never share your email with anyone else.

Password

Password



☐ Check me out

Submit


Forms – general idea

```
<form>
  <div class="form-group">
    <!-- Email field -->
  </div>
  <div class="form-group">
    <!-- Password field -->
  </div>

  <button type="submit" class="btn btn-primary">
    Submit
  </button>
</form>
```

Forms – general idea

```
<!-- Email field -->  
<label for="email">  
    Email address  
</label>  
  
<input type="email"  
      id="email"  
      class="form-control"  
      placeholder="Enter email">
```





Bootstrap

Templates (doc)

Bootstrap starter template

Use this document as a way to quickly start any new project.
All you get is this text and a mostly barebones HTML document.

Hello, world!

This is a template for a simple marketing or informational website. It includes a large callout called a jumbotron and three supporting pieces of content. Use it as a starting point to create something more unique.

[Learn more »](#)

Heading

Donec id elit non mi porta gravida at eget metus. Fusce dapibus, tellus ac cursus commodo, tortor mauris condimentum nibh, ut fermentum massa justo sit amet risus. Etiam porta sem malesuada magna mollis euismod. Donec sed odio dui.

[View details »](#)

Heading

Donec id elit non mi porta gravida at eget metus. Fusce dapibus, tellus ac cursus commodo, tortor mauris condimentum nibh, ut fermentum massa justo sit amet risus. Etiam porta sem malesuada magna mollis euismod. Donec sed odio dui.

[View details »](#)

Heading

Donec sed odio dui. Cras justo odio, dapibus ac facilisis in, egestas eget quam. Vestibulum id ligula porta felis euismod semper. Fusce dapibus, tellus ac cursus commodo, tortor mauris condimentum nibh, ut fermentum massa justo sit amet risus.

[View details »](#)

Album example

Something short and leading about the collection below—its contents, the creator, etc. Make it short and sweet, but not too short so folks don't simply skip over it entirely.

[Main call to action](#)[Secondary action](#)

Thumbnail

This is a wider card with supporting text below as a natural lead-in to additional content. This content is a little bit longer.

[View](#) [Edit](#)

9 mins

Thumbnail

This is a wider card with supporting text below as a natural lead-in to additional content. This content is a little bit longer.

[View](#) [Edit](#)

9 mins

Thumbnail

This is a wider card with supporting text below as a natural lead-in to additional content. This content is a little bit longer.

[View](#) [Edit](#)

9 mins



Please sign in

Email address



Password



☐ Remember me

Sign in

© 2017-2018

Further learning

Learning HTML

Moja pierwsza strona internetowa w HTML5 i CSS3

Damian Wielgosik

wersja HTML

pdf

epub

mobi



Learning bootstrap

[Home](#) [Documentation](#) [Examples](#) [Themes](#) [Expo](#) [Blog](#)

v4.1 ▾

[Download](#)

Bootstrap

Build responsive, mobile-first projects on the web with the world's most popular front-end component library.

Bootstrap is an open source toolkit for developing with HTML, CSS, and JS. Quickly prototype your ideas or build your entire app with our Sass variables and mixins, responsive grid system, extensive prebuilt components, and powerful plugins built on jQuery.

[Get started](#)[Download](#)

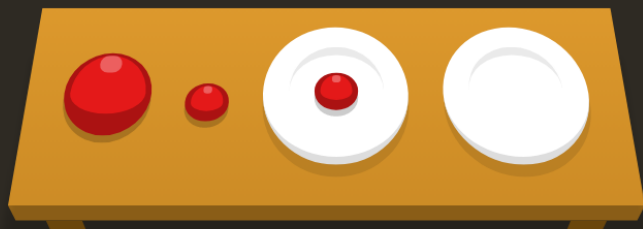
Training CSS selectors

CSS Diner

Share



Select the small apples



Level 6 of 32 ✓



Class Selector

Select elements by their class

`.classname`

The class selector selects all elements with that class attribute. Elements can only have one ID, but many classes.

Examples

`.neato` selects all elements with `class="neato"`

CSS Editor

style.css

HTML Viewer

table.html

```
1 Type in a CSS selector
2 {
3 /* Styles would go here. */
4 }
5
```

enter

```
1 <div class="table">
2   <apple />
3   <apple class="small" />
4   <plate>
5     <apple class="small" />
```

Training Flexbox layout

FLEXBOX FROGGY

◀ Poziom 1 z 24 ▶

Witaj w grze Flexbox Froggy. Grze, w której pomagasz żabce Froggy i jej przyjaciółom pisać kod CSS! Doprowadź żabki do odpowiednich listków przy pomocy **justify-content**, właściwości która wyrównuje elementy w poziomie i przyjmuje wartości:

- **flex-start**: Elementy wyrównują się do lewej strony kontenera.
- **flex-end**: Elementy wyrównują się do prawej strony kontenera.
- **center**: Elementy wyrównują się do środka kontenera.
- **space-between**: Elementy wyświetlają się na całej szerokości kontenera z równymi odstępami.
- **space-around**: Każdy z elementów wyświetla się z taką samą ilością przestrzeni wokół.

Na przykład: **justify-content: flex-end;** przesunie żabę do prawej strony.

```
1 #pond {  
2   display: flex;  
3     
4 }  
5
```





Contact me

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