What is CSS?

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CSS describes how HTML elements are to be displayed on screen.

External stylesheets are stored in CSS files

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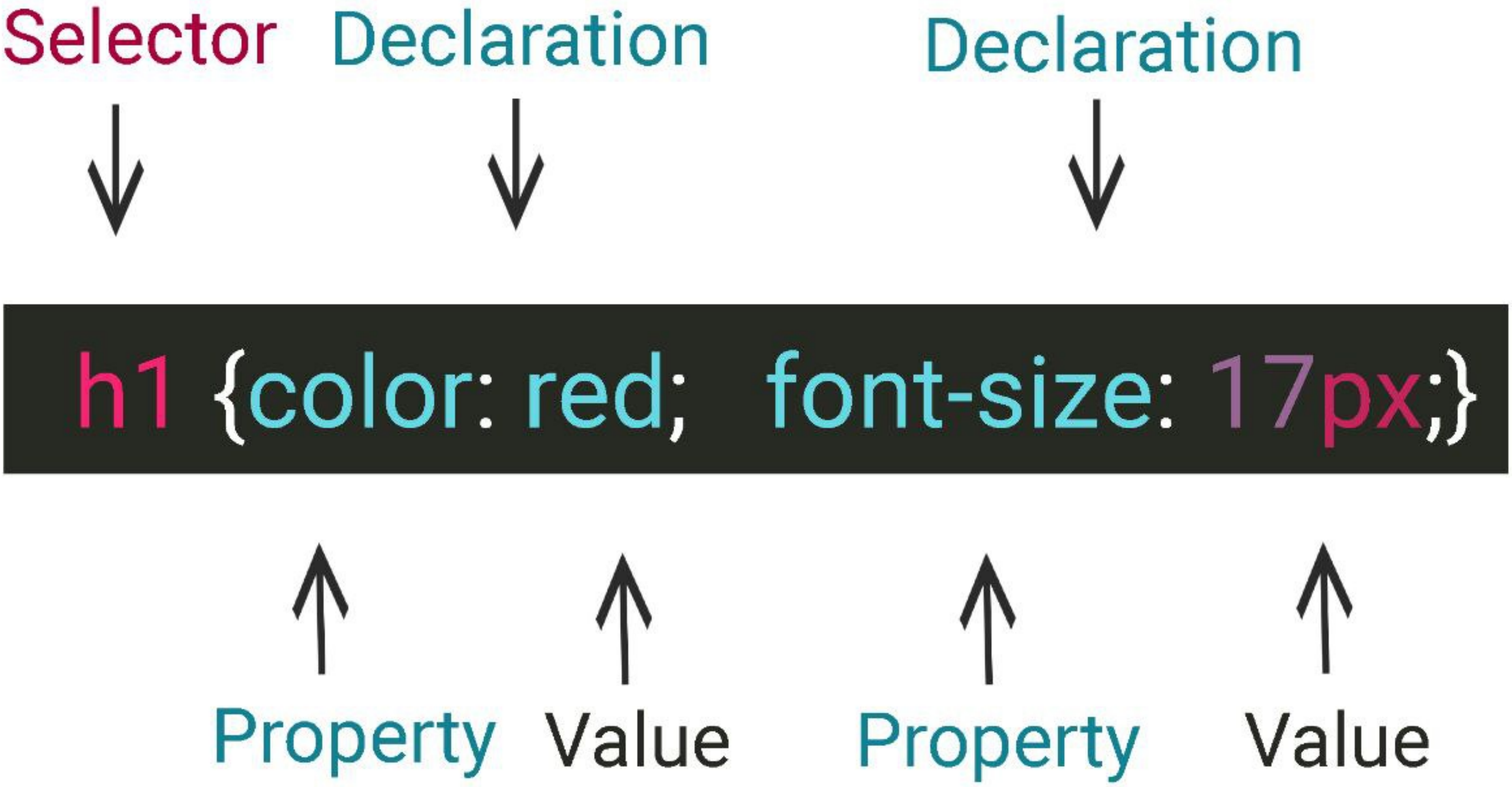
CSS Syntax



Selector

Declaration

Declaration

```
h1 {color: red;   font-size: 17px;}
```

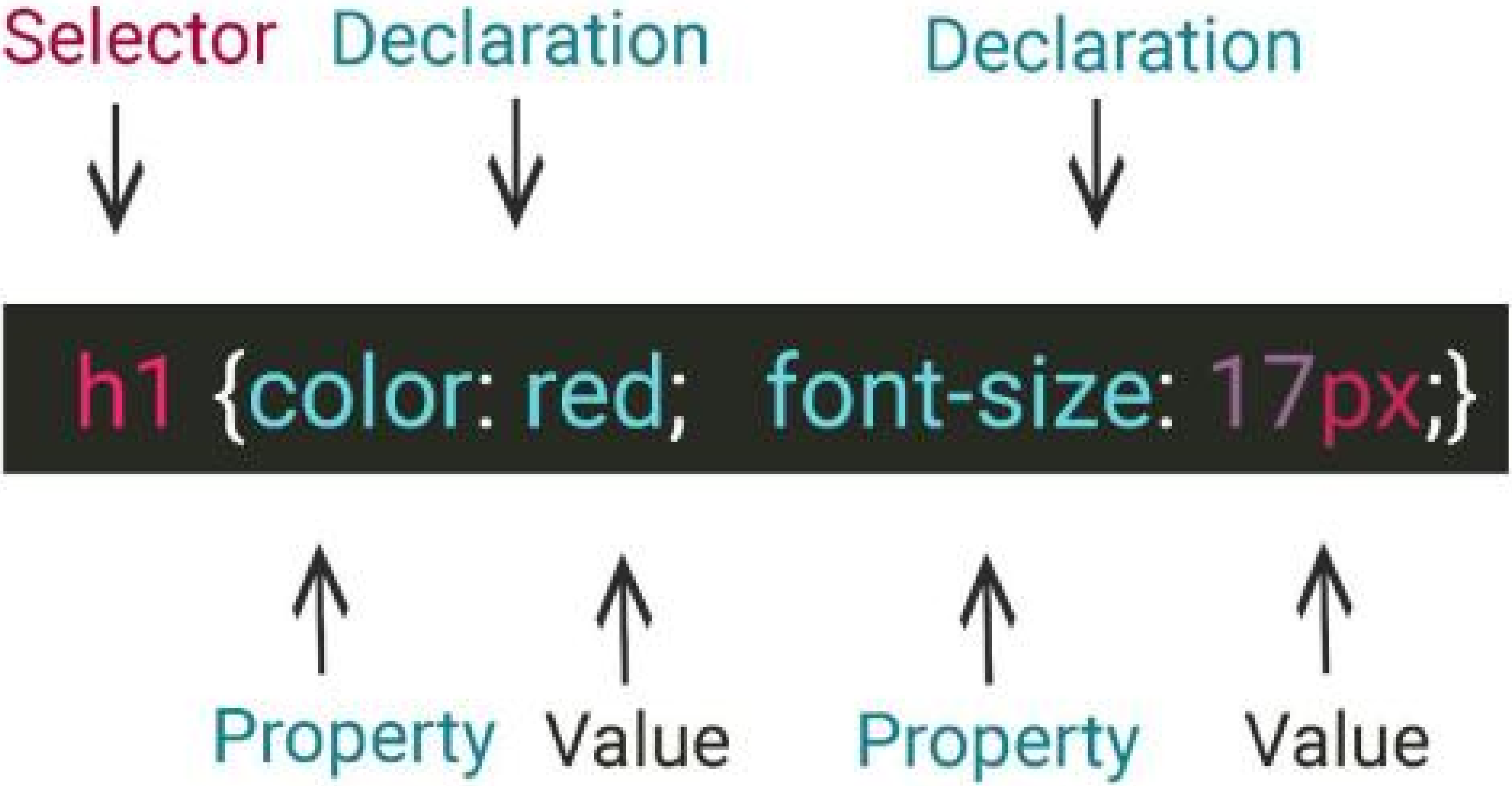
Property

Value

Property

Value

CSS Syntax



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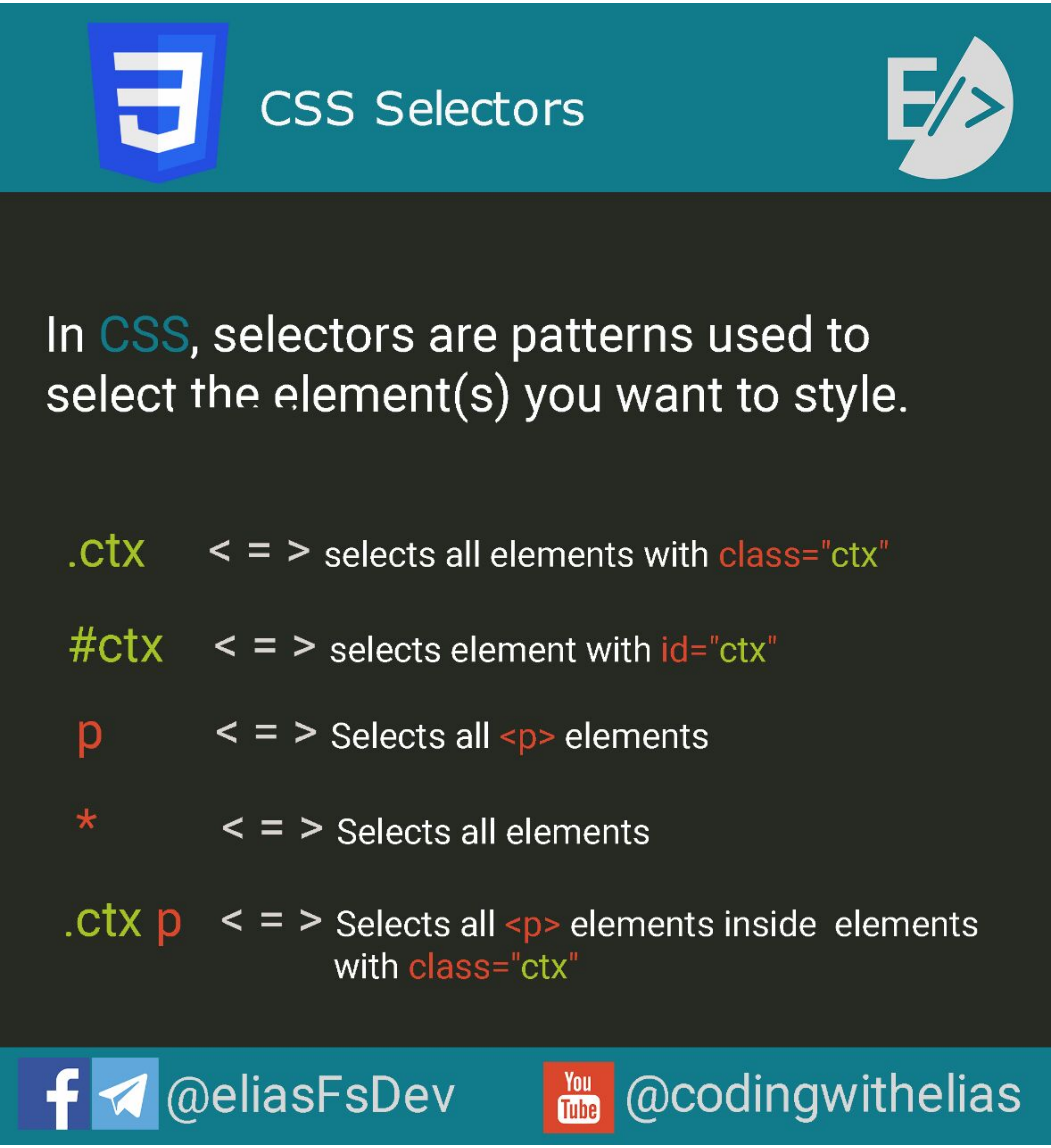

CSS Selectors

In CSS, selectors are patterns used to select the element(s) you want to style.

.ctx < = > selects all elements with class="ctx"

#ctx < = > selects element with id="ctx"

p < = > Selects all <p> elements

* < = > Selects all elements

.ctx p < = > Selects all <p> elements inside elements with class="ctx"

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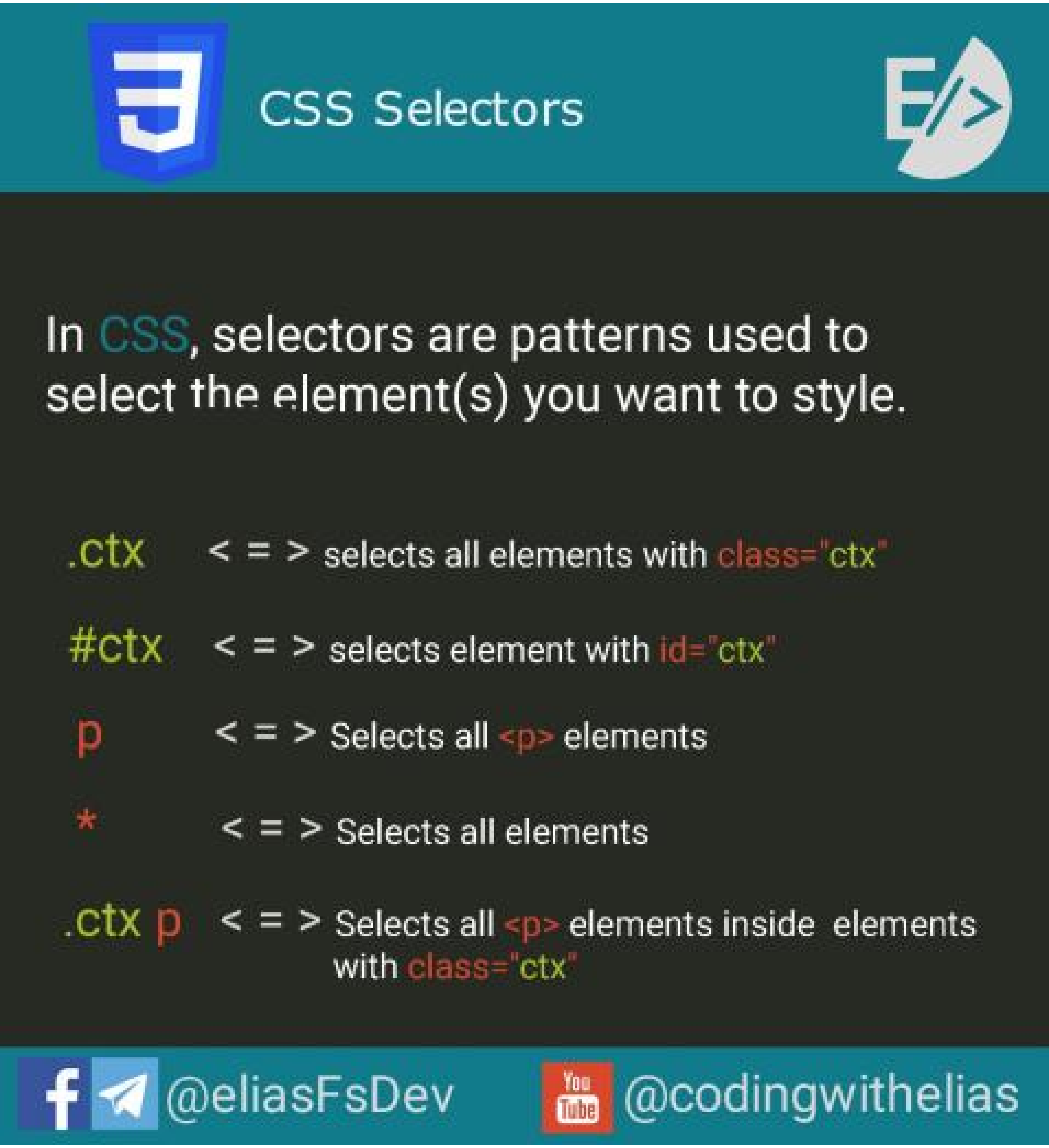

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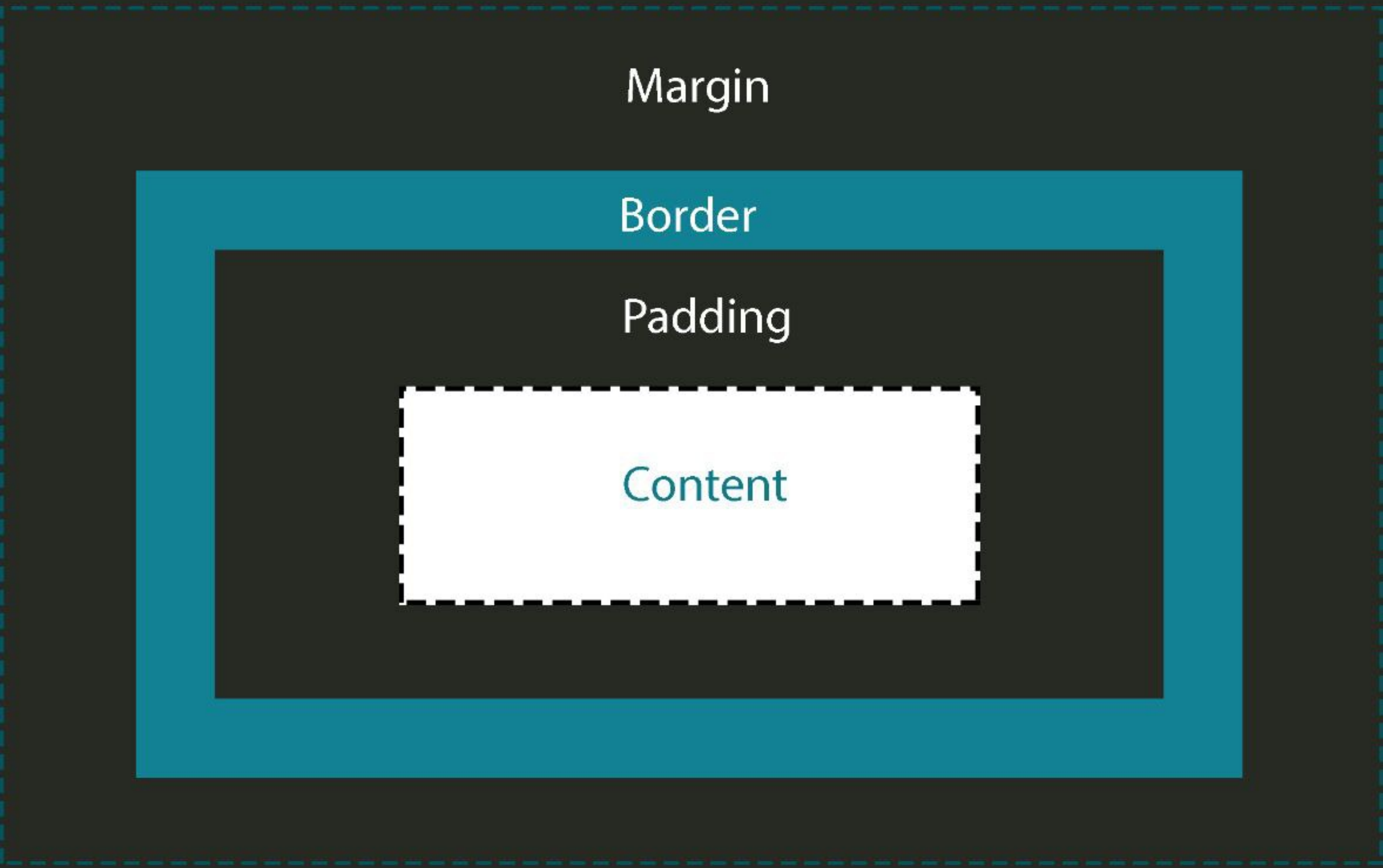
CSS Box Model



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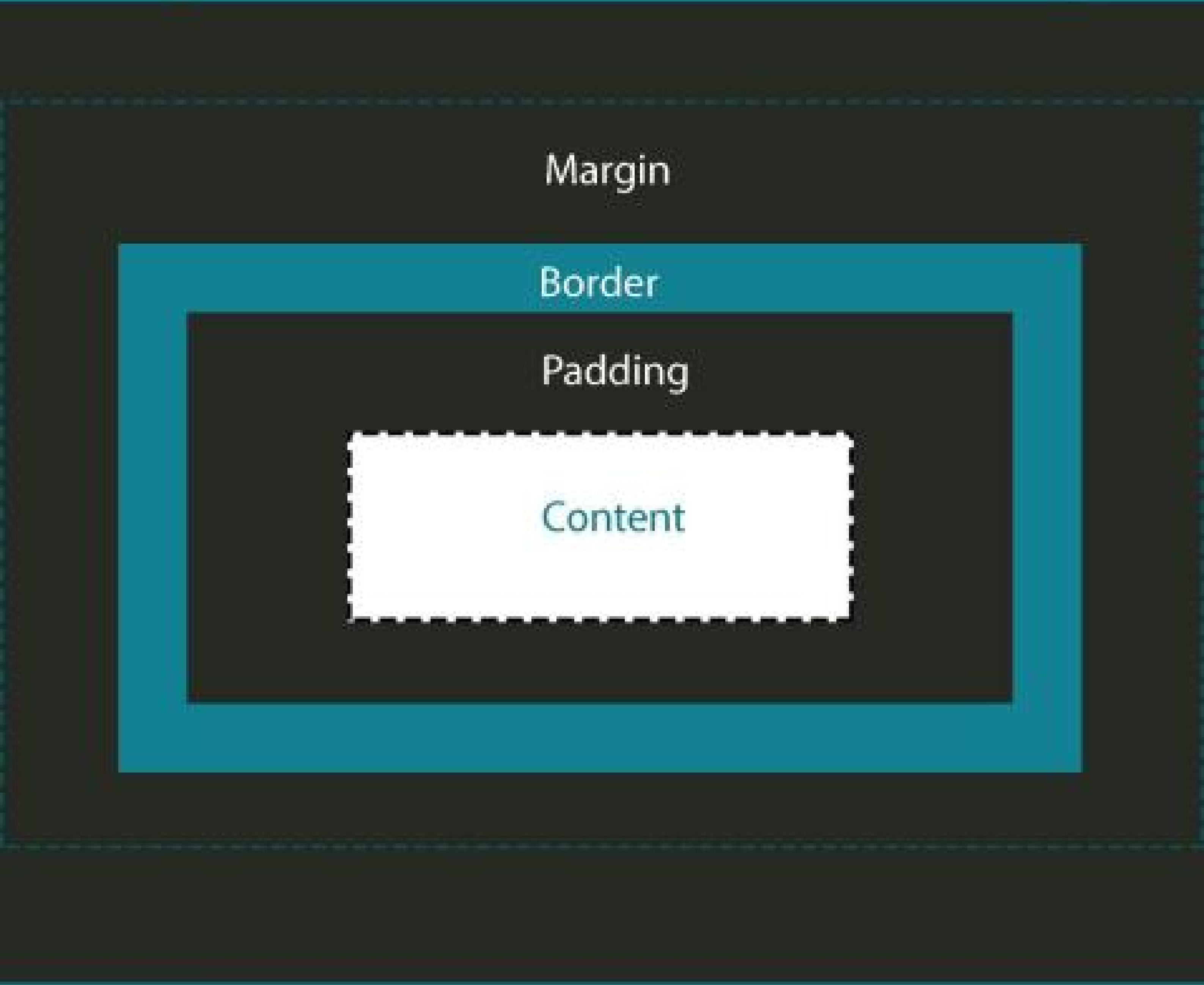

Margin

Border

Padding

Content

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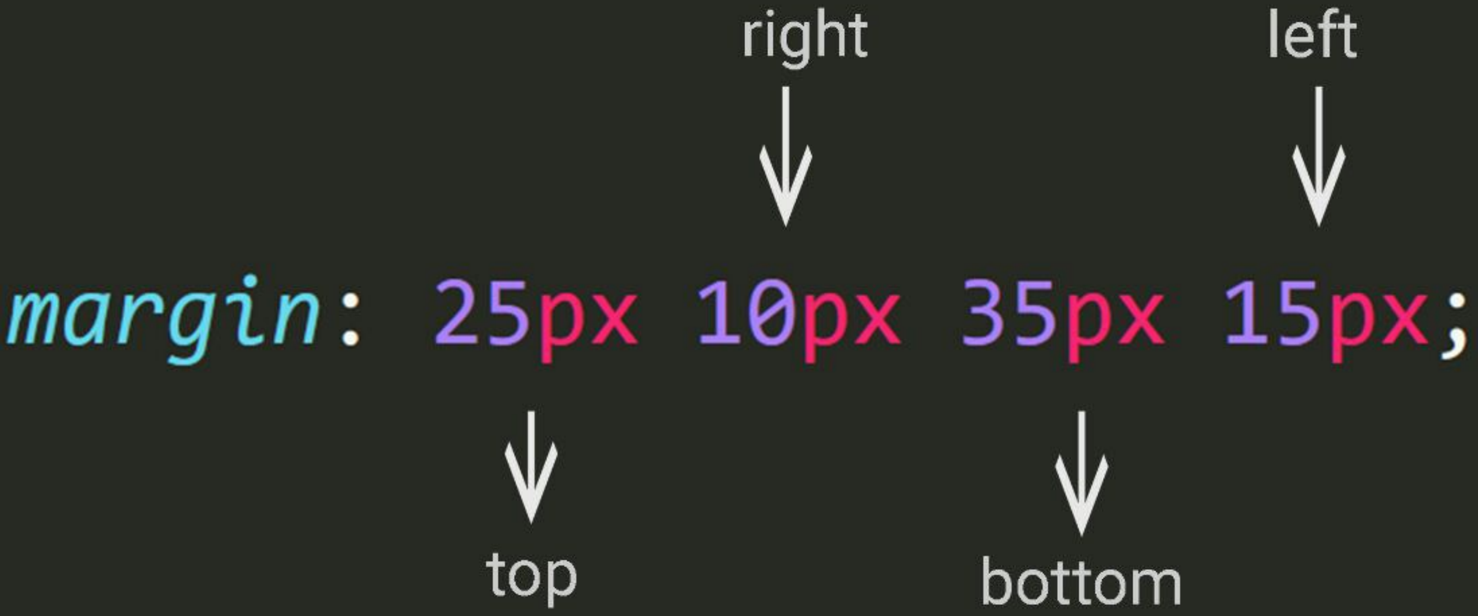
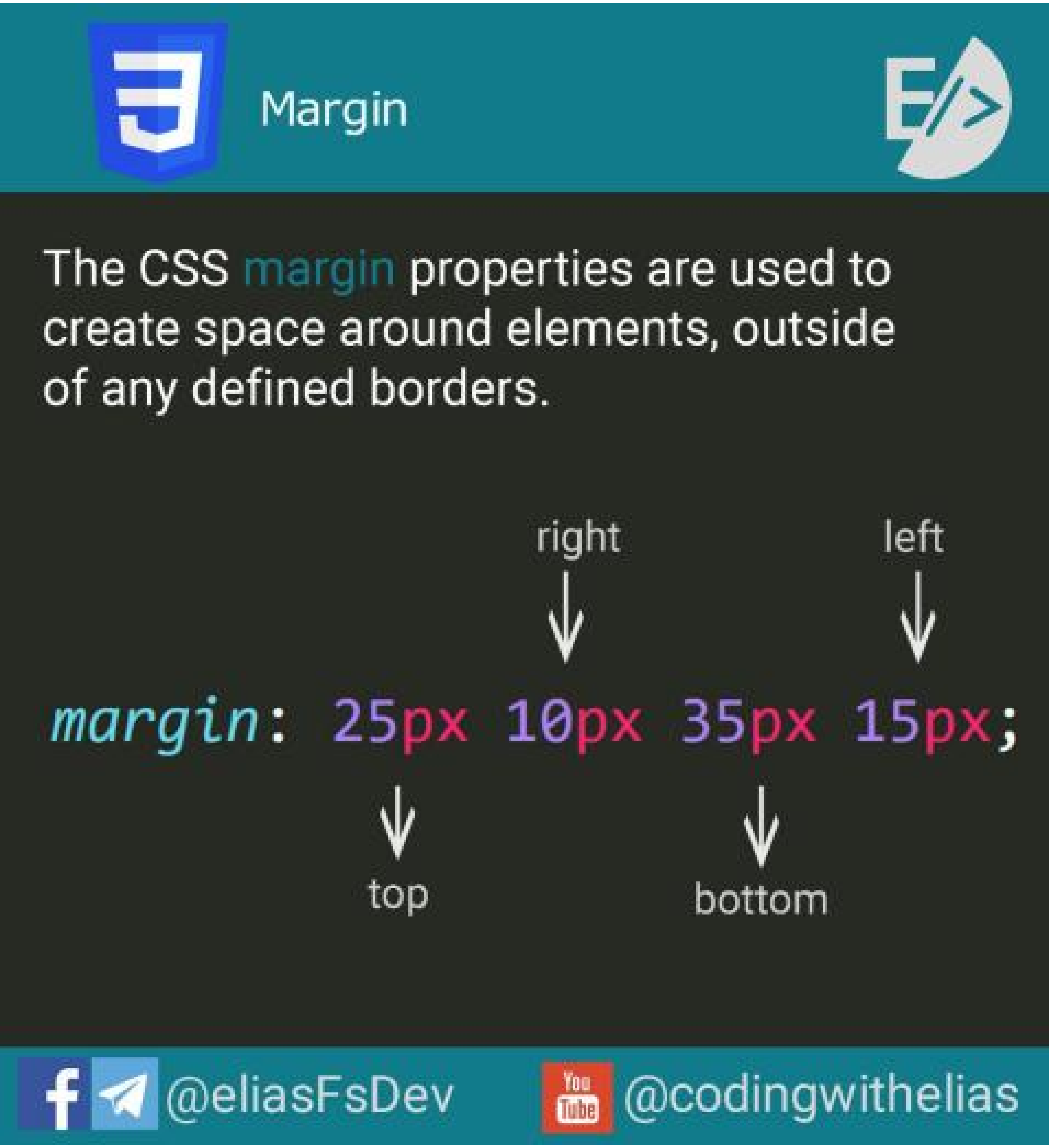
Margin

The CSS margin properties are used to create space around elements, outside of any defined borders.



```
margin: 25px 10px 35px 15px;
```



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The CSS margin properties are used to create space around elements, outside of any defined borders.

```
margin: 25px 10px 35px 15px;
```

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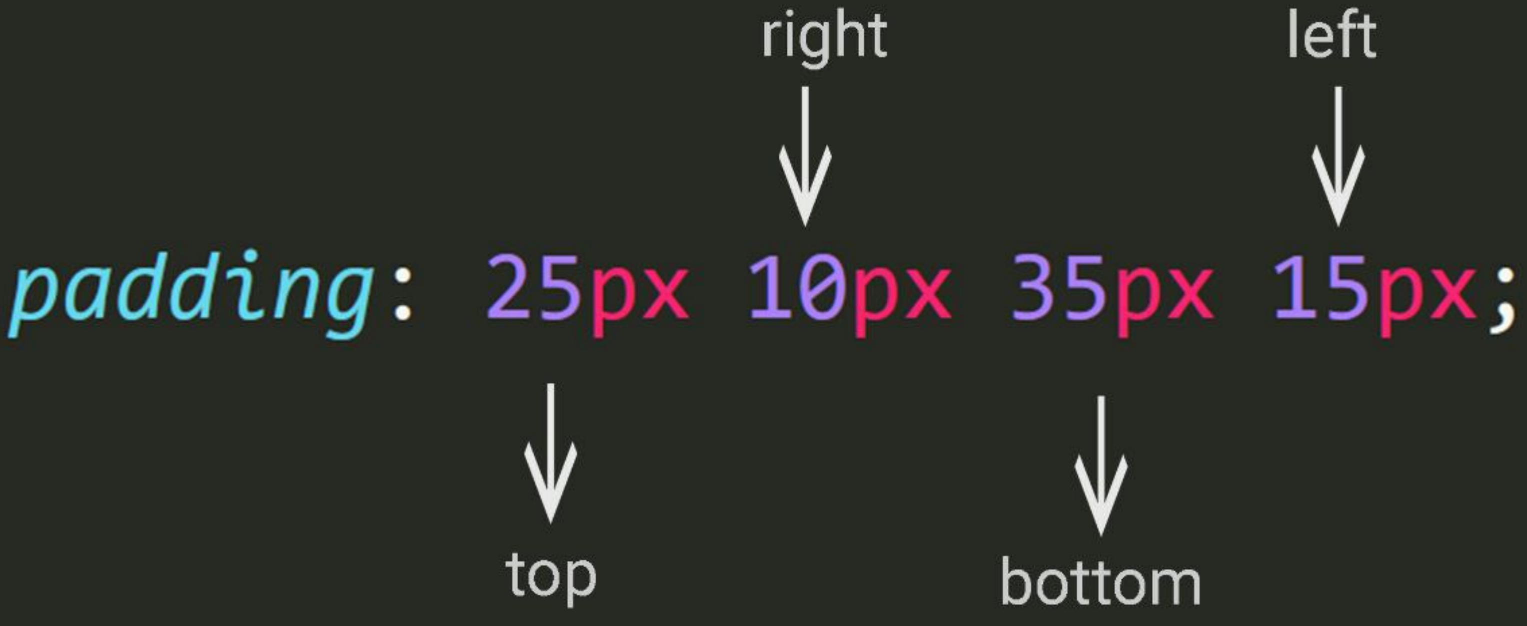
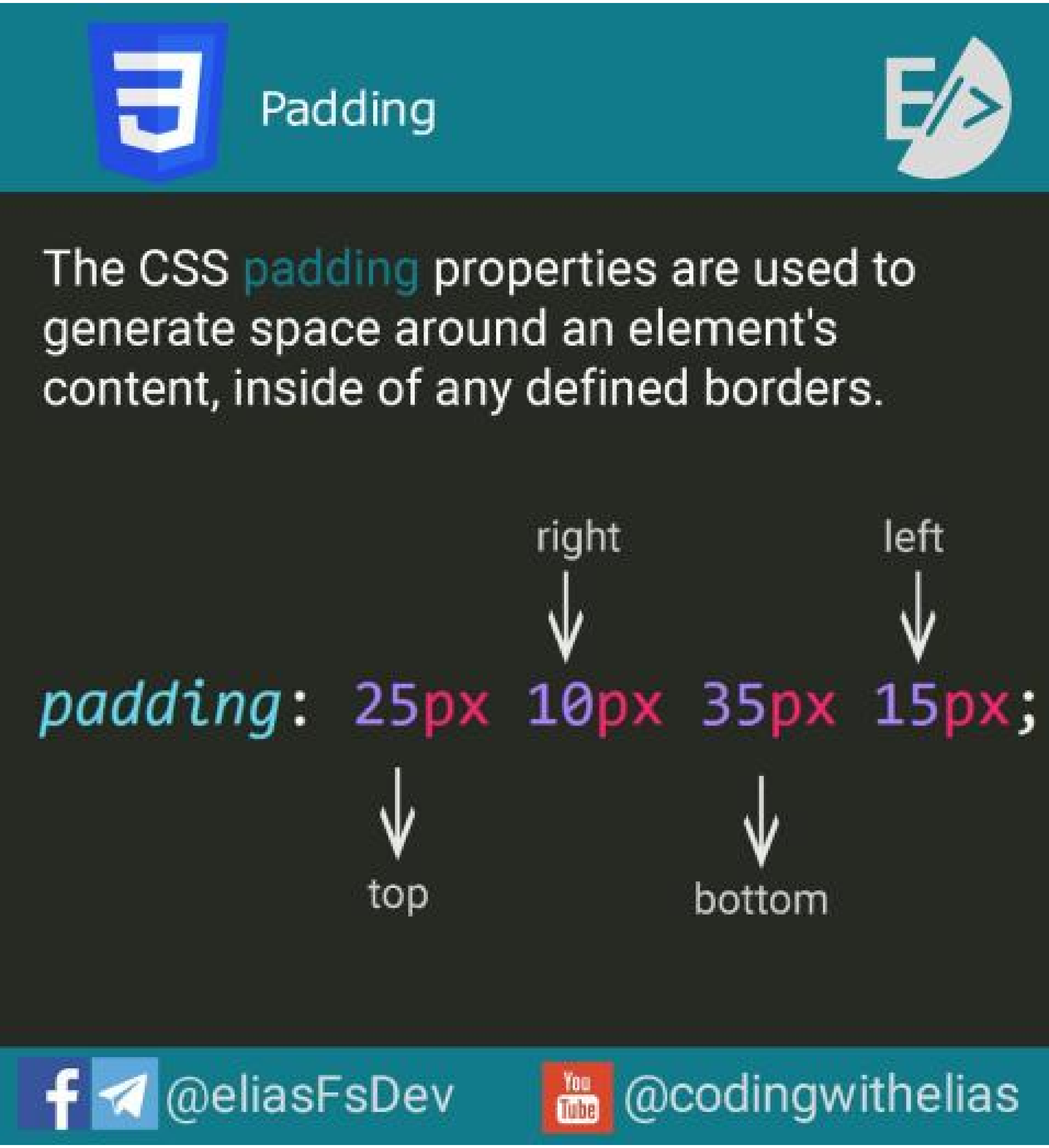
Padding

The CSS padding properties are used to generate space around an element's content, inside of any defined borders.



```css
padding: 25px 10px 35px 15px;
```



Padding

The CSS padding properties are used to generate space around an element's content, inside of any defined borders.

right
left

```
padding: 25px 10px 35px 15px;
```

top
bottom

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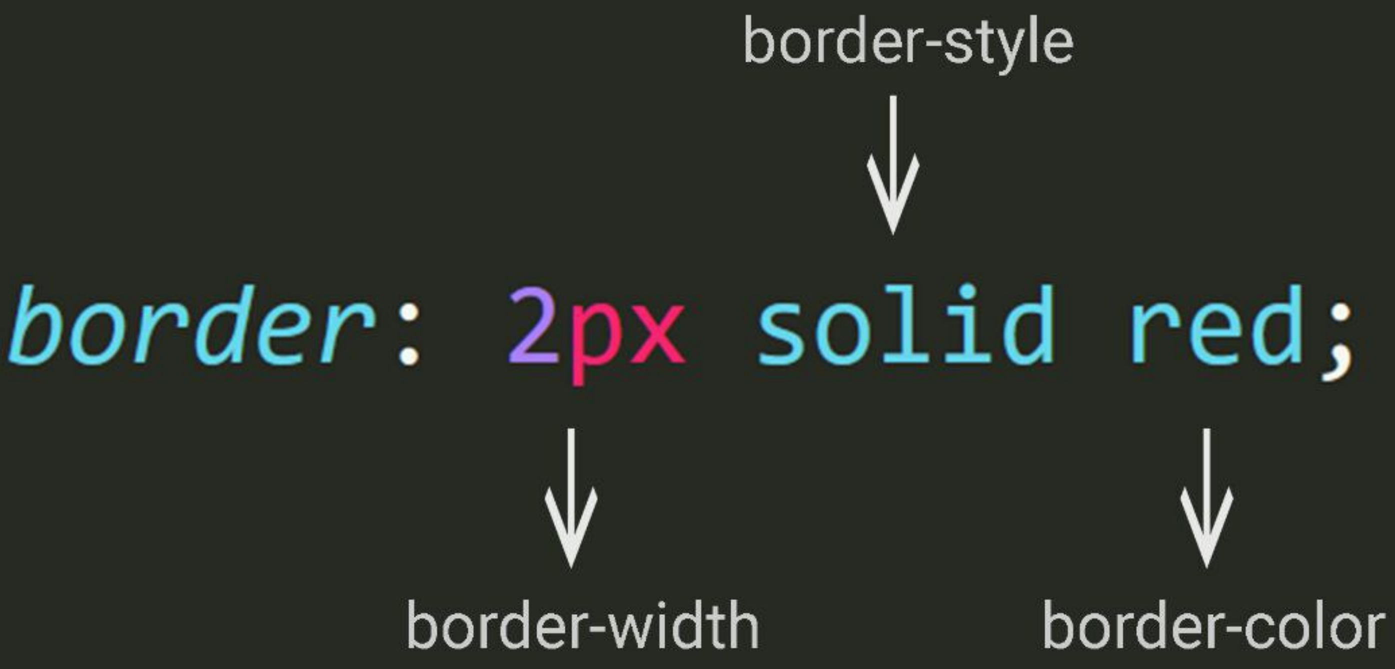
Border

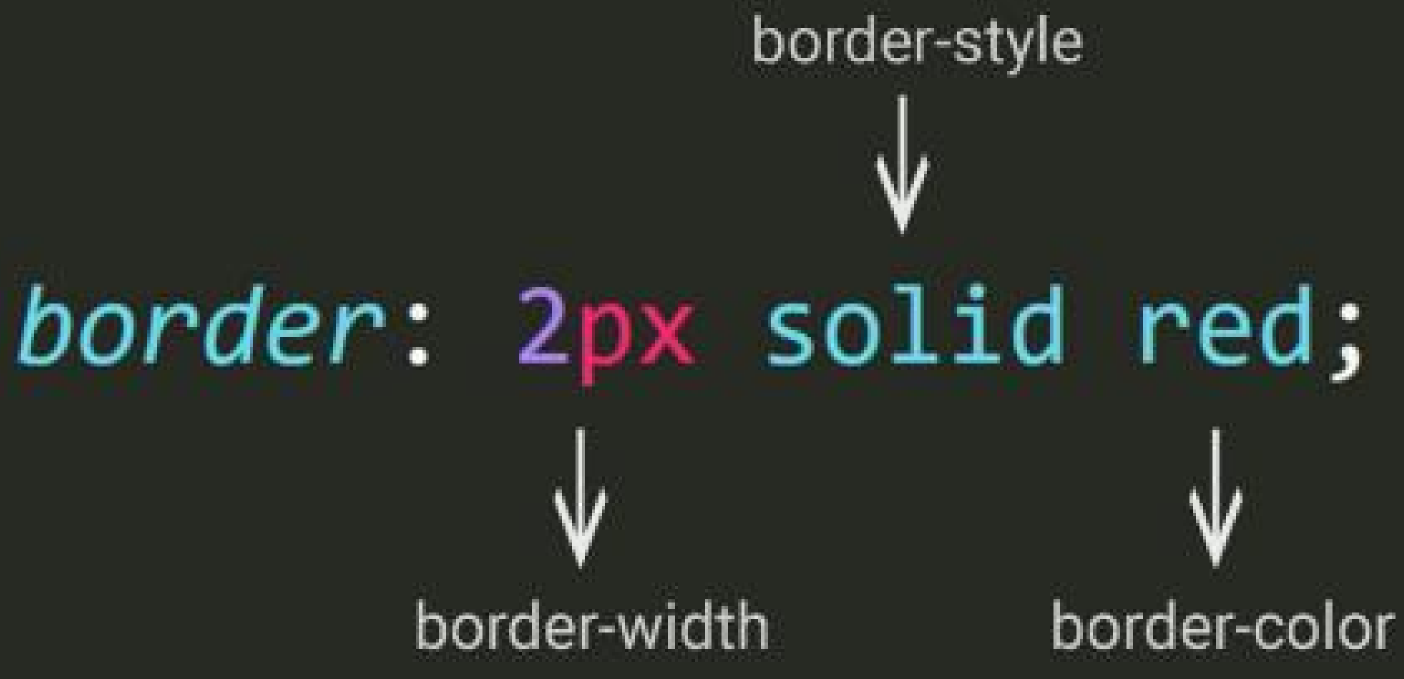
The CSS border properties allow you to specify the style, width, and color of an element's border.



```
border: 2px solid red;
```

Border

The CSS border properties allow you to specify the style, width, and color of an element's border.



border-style

```
border: 2px solid red;
```

border-width

border-color

RGB Colors

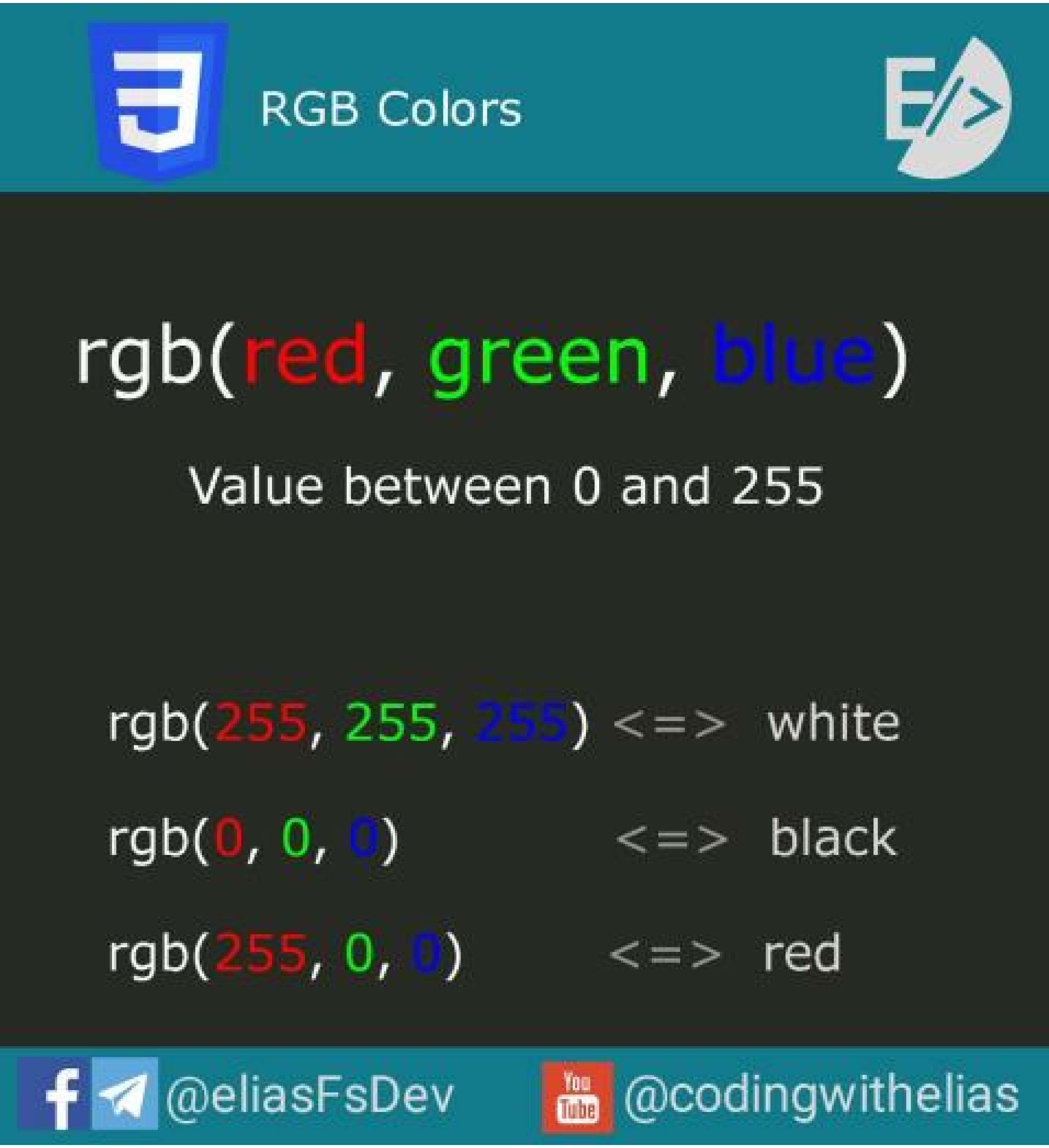
```
rgb(red, green, blue)
```

Value between 0 and 255

```
rgb(255, 255, 255) <=>  white

rgb(0, 0, 0)       <=>  black

rgb(255, 0, 0)     <=>  red
```



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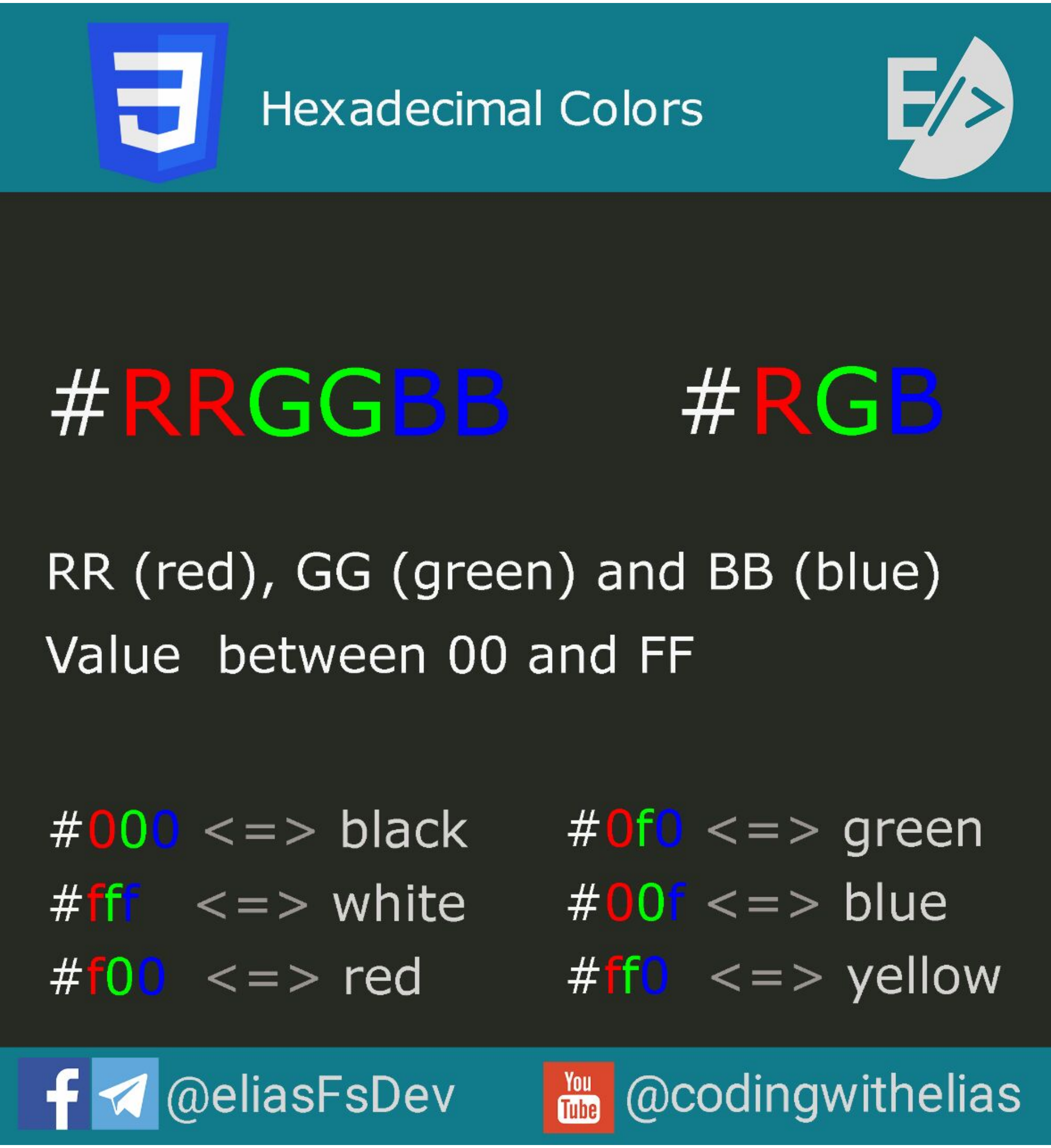

Hexadecimal Colors

#RRGGBB #RGB

RR (red), GG (green) and BB (blue)

Value between 00 and FF

#000 <=> black

#fff <=> white

#f00 <=> red

#0f0 <=> green

#00f <=> blue

#ff0 <=> yellow

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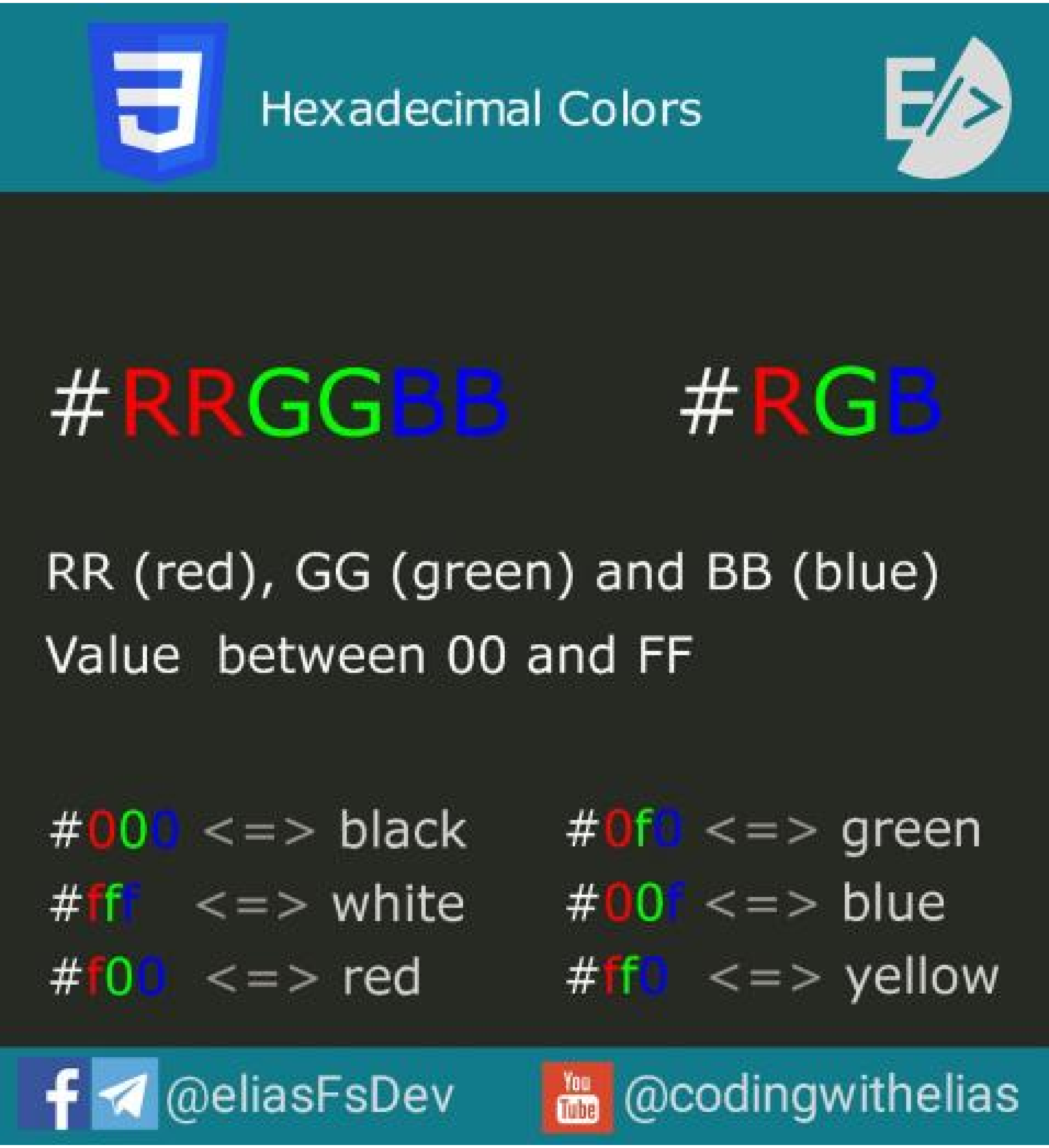

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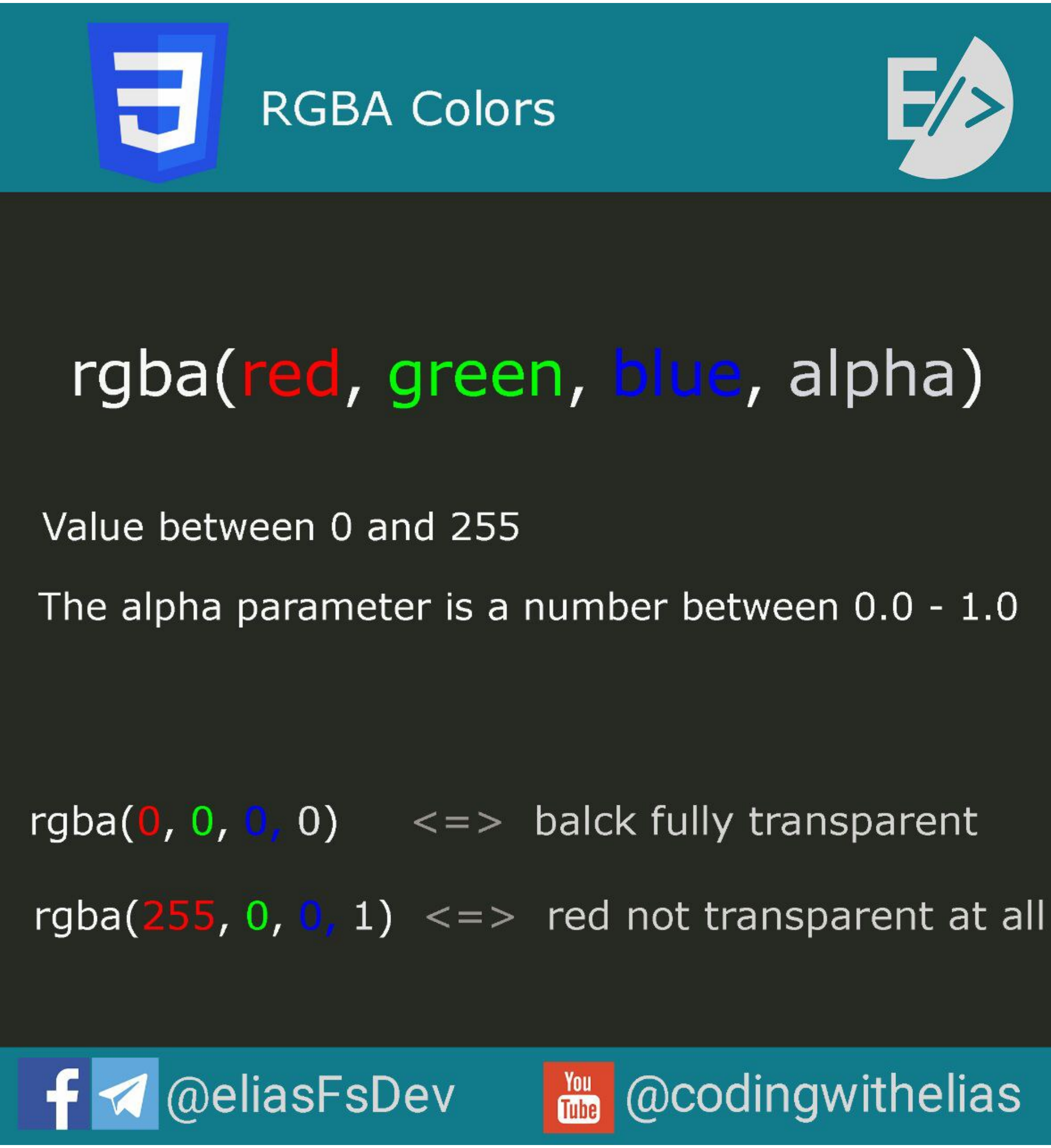

RGBA Colors

```
rgba(red, green, blue, alpha)
```

Value between 0 and 255

The alpha parameter is a number between 0.0 - 1.0

```
rgba(0, 0, 0, 0)      <=>  balck fully transparent

rgba(255, 0, 0, 1)  <=>  red not transparent at all
```

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Float

The CSS float property specifies how an element should float.

```
float: none;
float: left;
float: inherit;
float: right;
```

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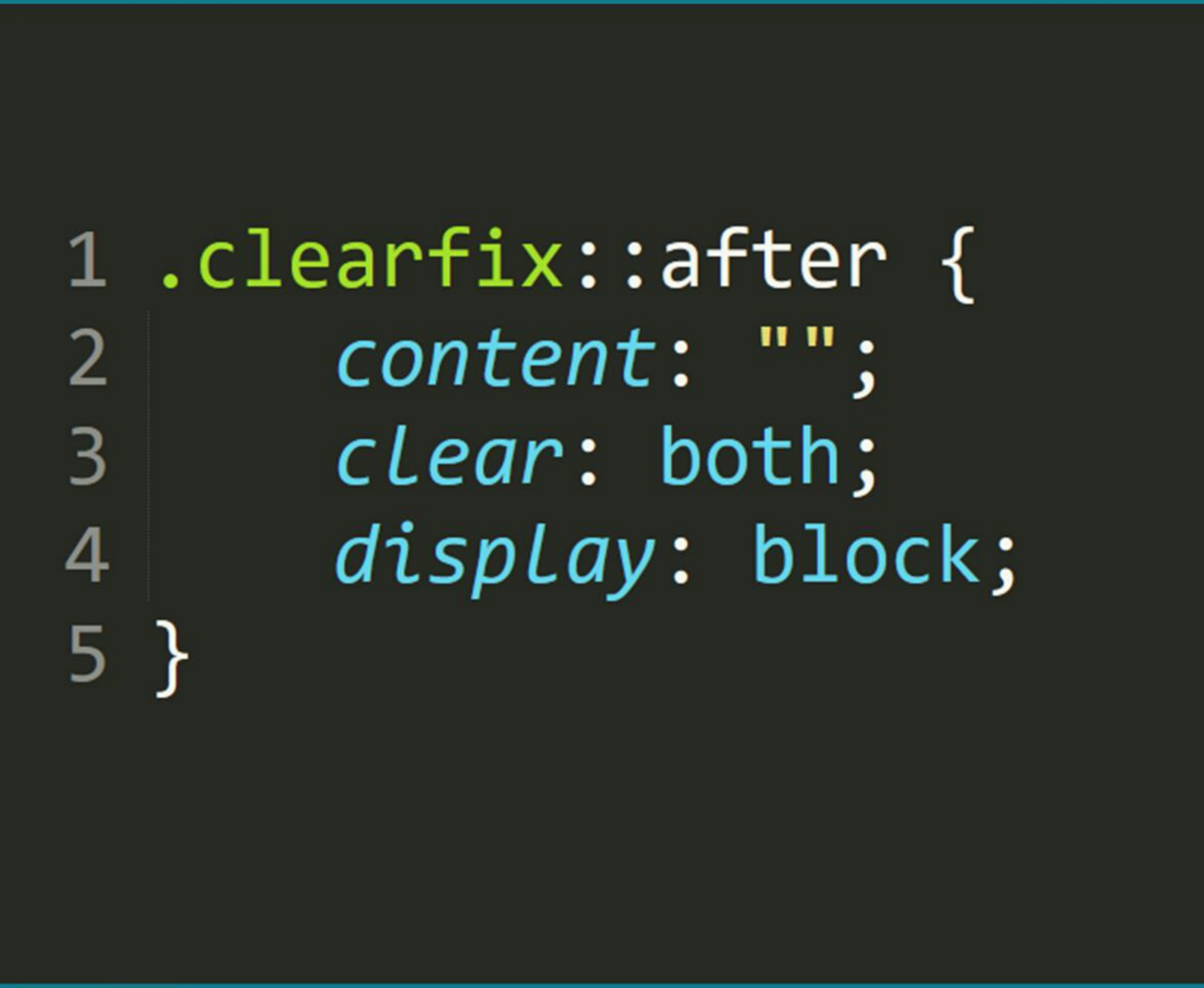
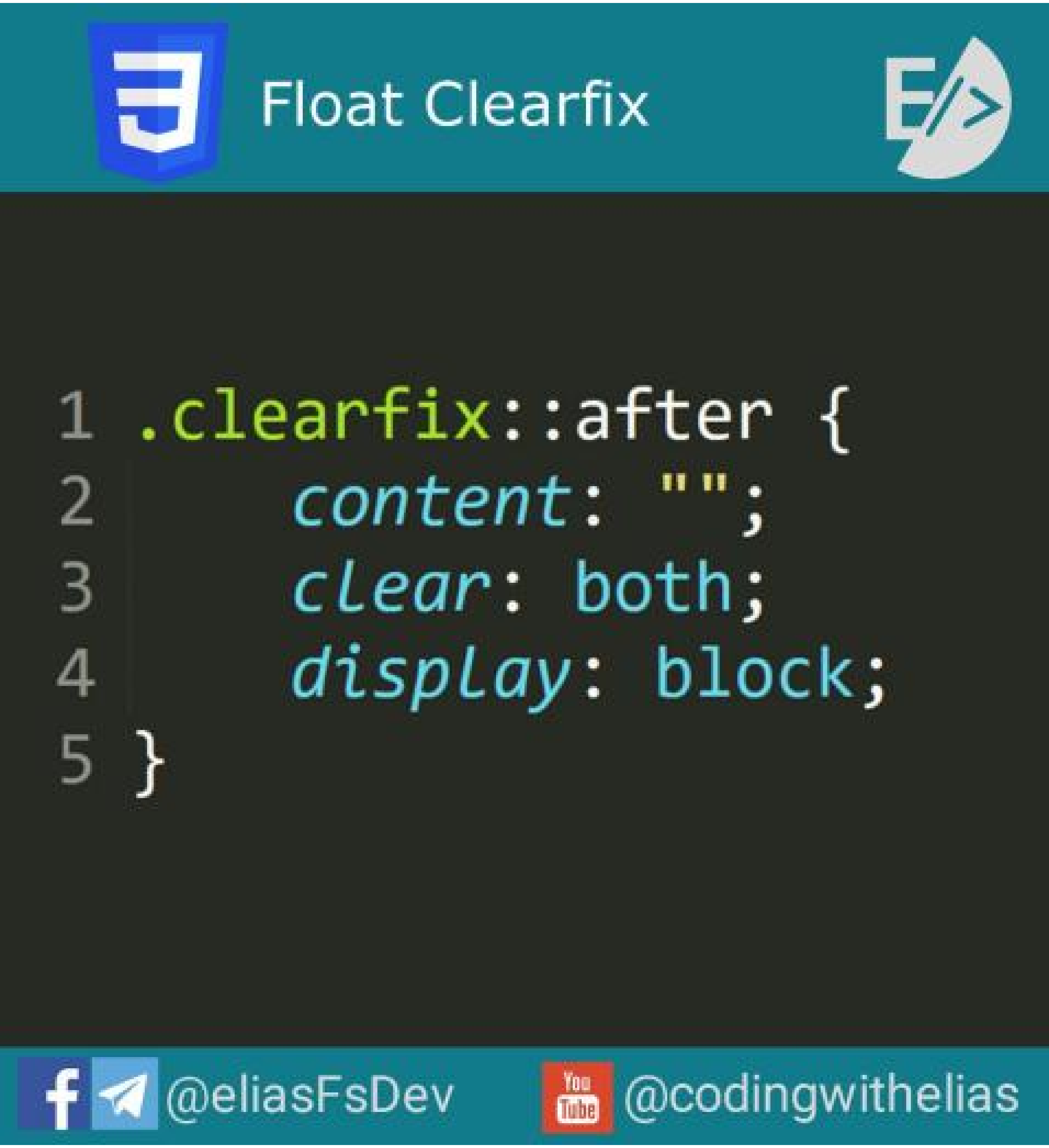
Float Clearfix



```css
.clearfix::after {
    content: "";
    clear: both;
    display: block;
}
```



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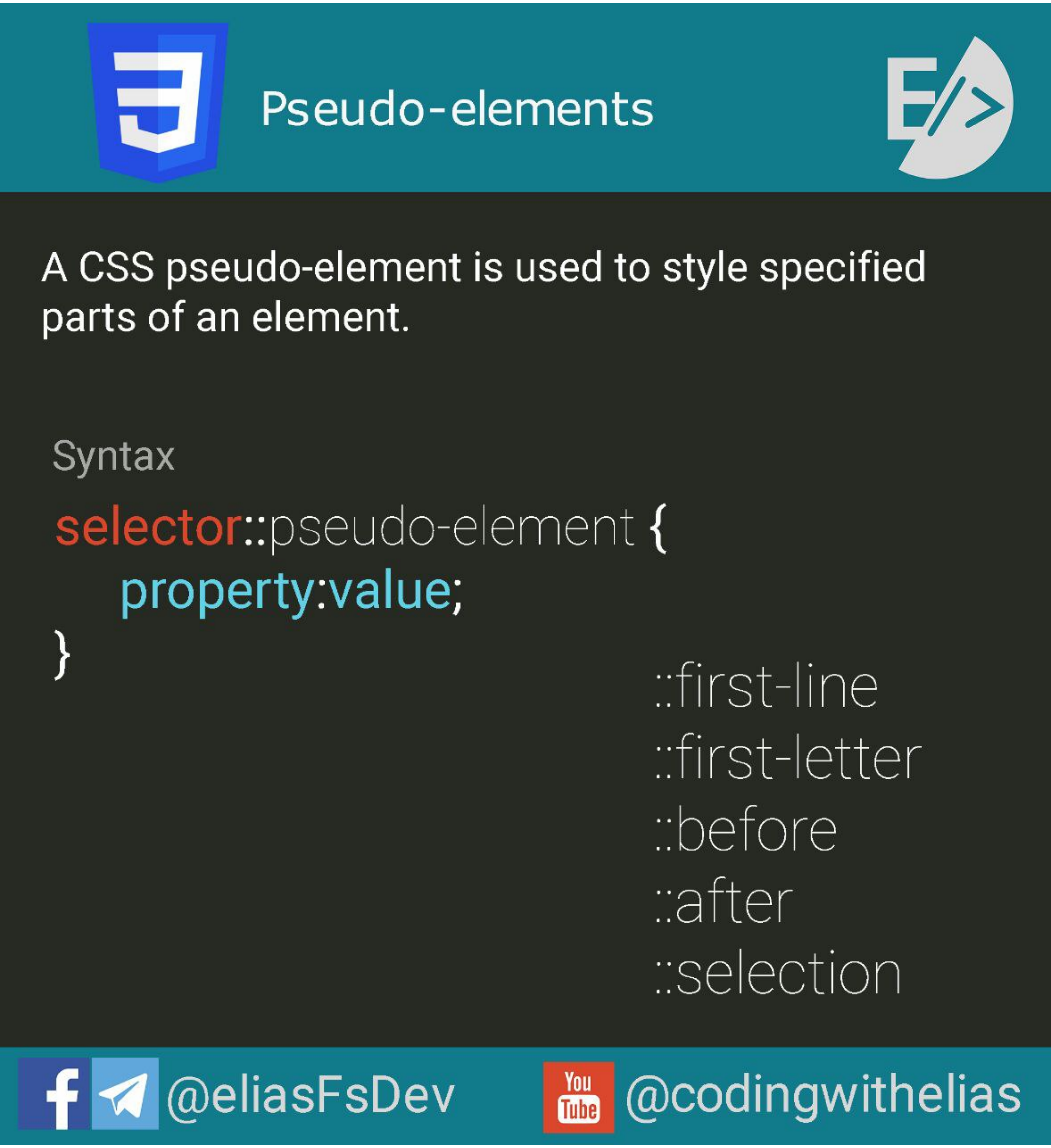

Pseudo-elements

A CSS pseudo-element is used to style specified parts of an element.

Syntax

```
selector::pseudo-element {
    property:value;
}
```

::first-line
::first-letter
::before
::after
::selection

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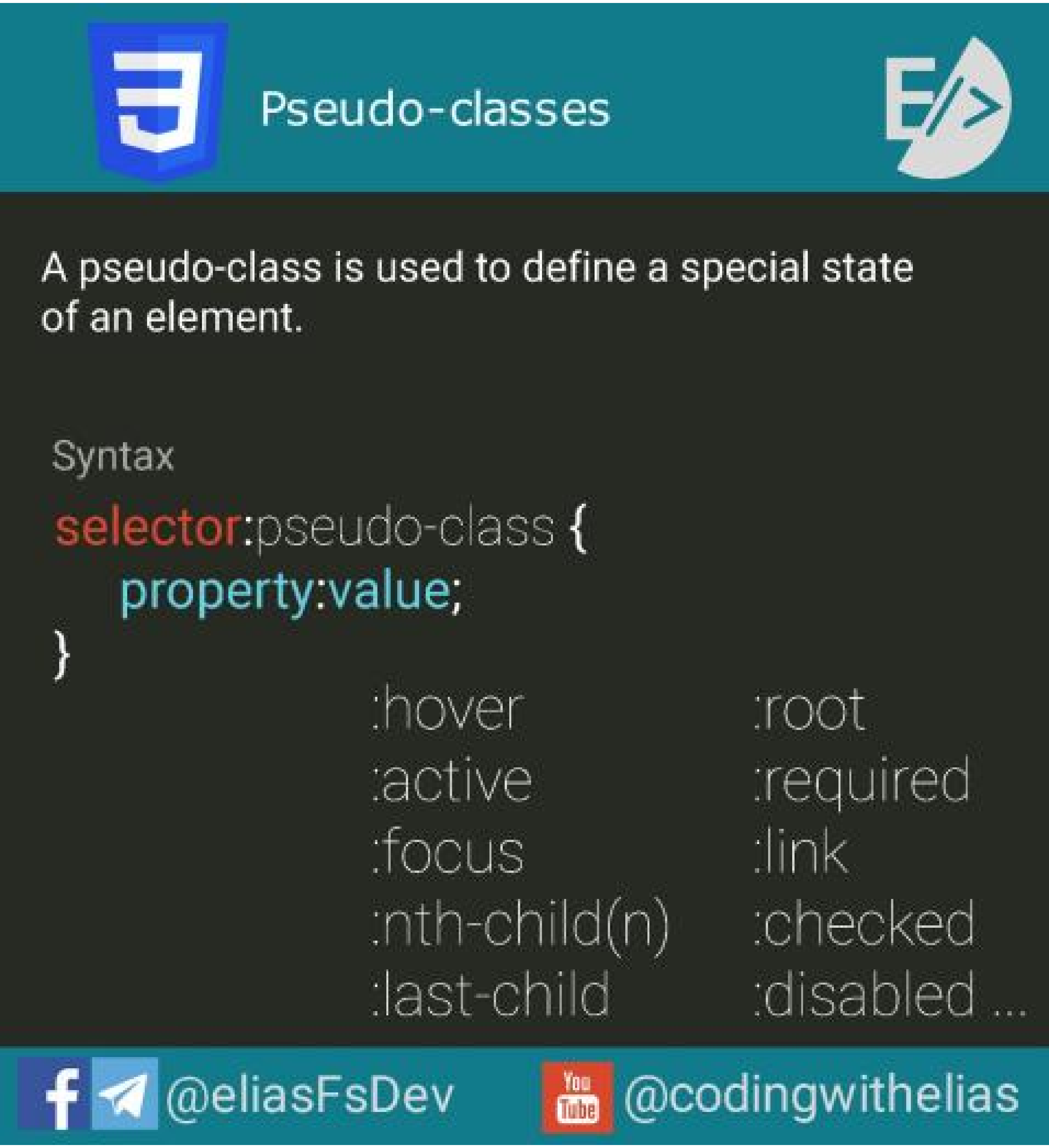
Pseudo-classes

A pseudo-class is used to define a special state of an element.

Syntax

```
selector:pseudo-class {
    property:value;
}
```

:hover
:active
:focus
:nth-child(n)
:last-child
:root
:required
:link
:checked
:disabled ...



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:link
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:disabled ...

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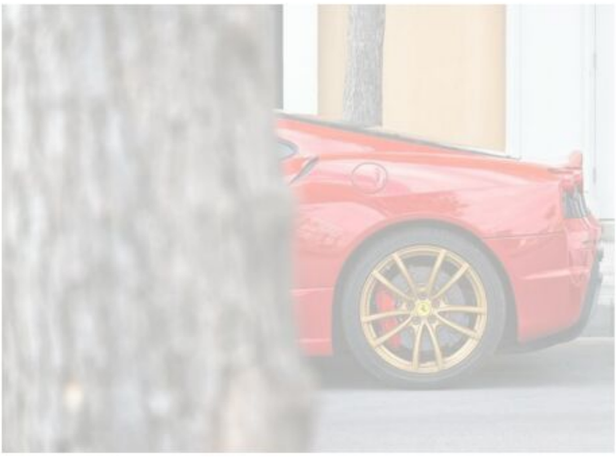
Opacity

The opacity property specifies the opacity/transparency of an element.

The opacity property can take a value from 0.0 - 1.0.

```css
opacity: 1;
```



```css
opacity: 0.3;
```

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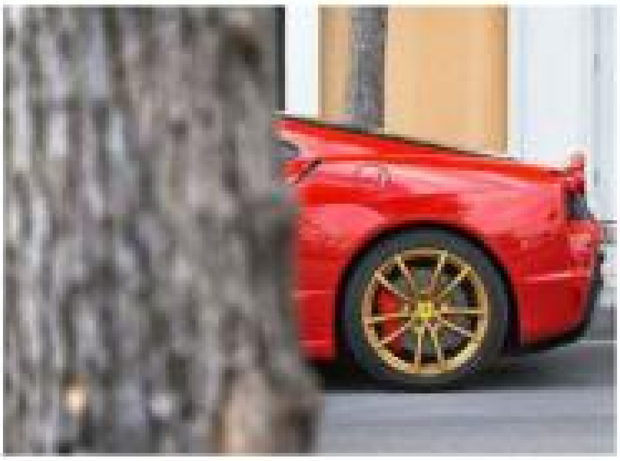
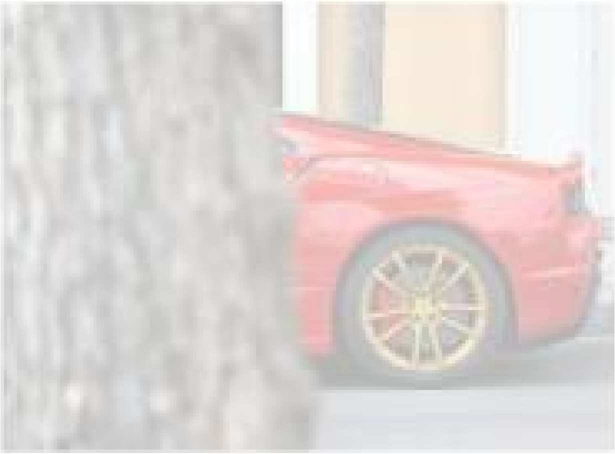


```css
opacity: 1;
```



```css
opacity: 0.3;
```

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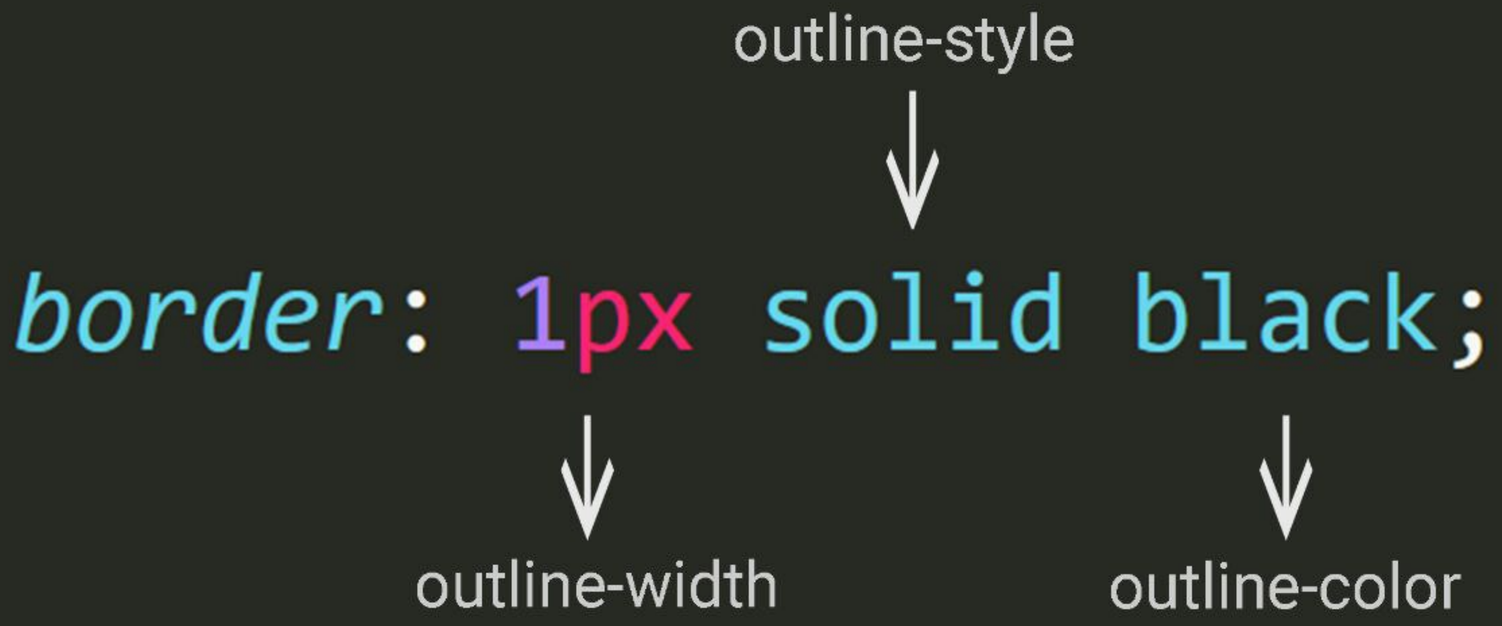
Outline

An outline is a line that is drawn around elements, OUTSIDE the borders, to make the element "stand out"

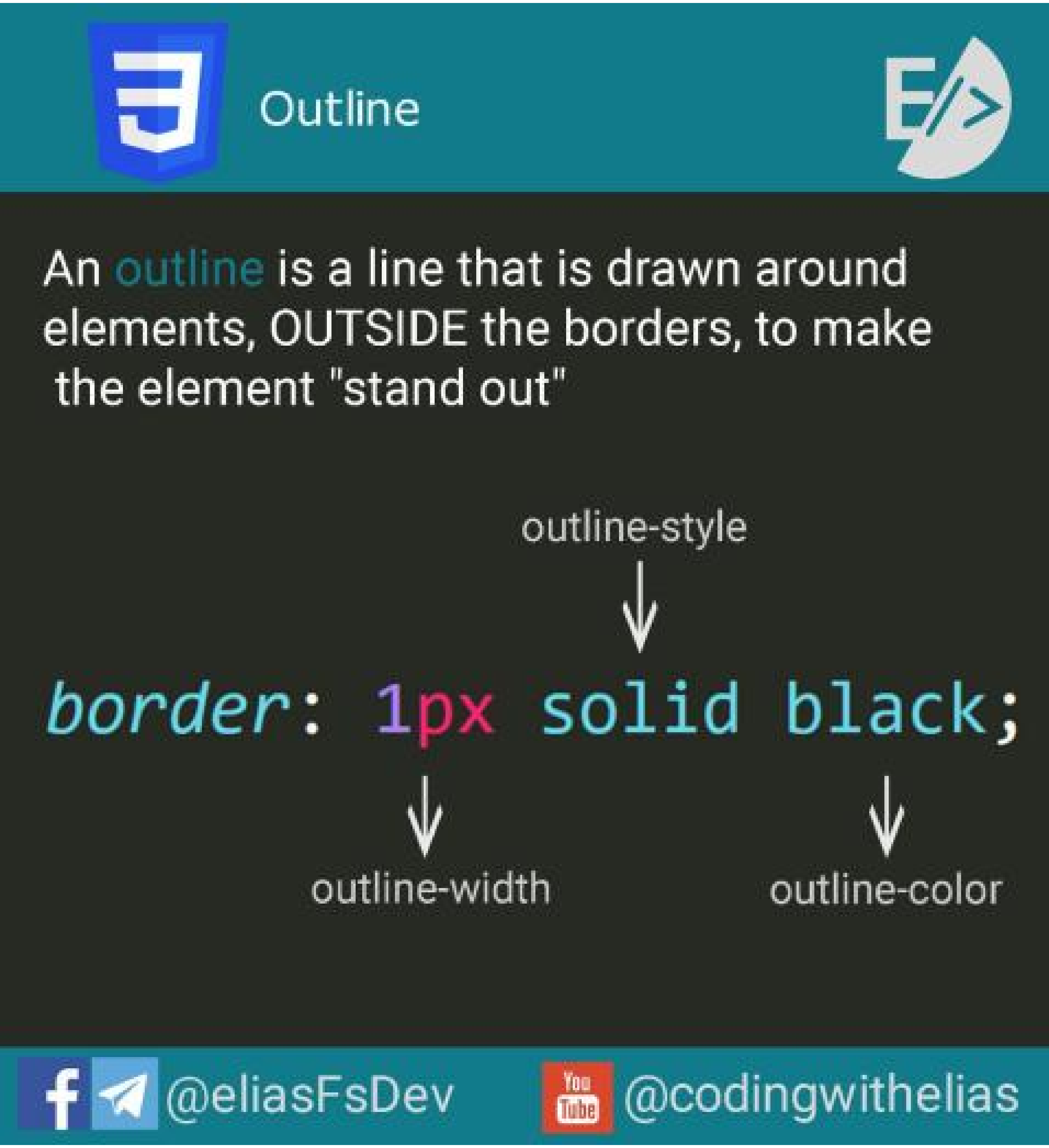


outline-style

```
border: 1px solid black;
```

outline-width

outline-color



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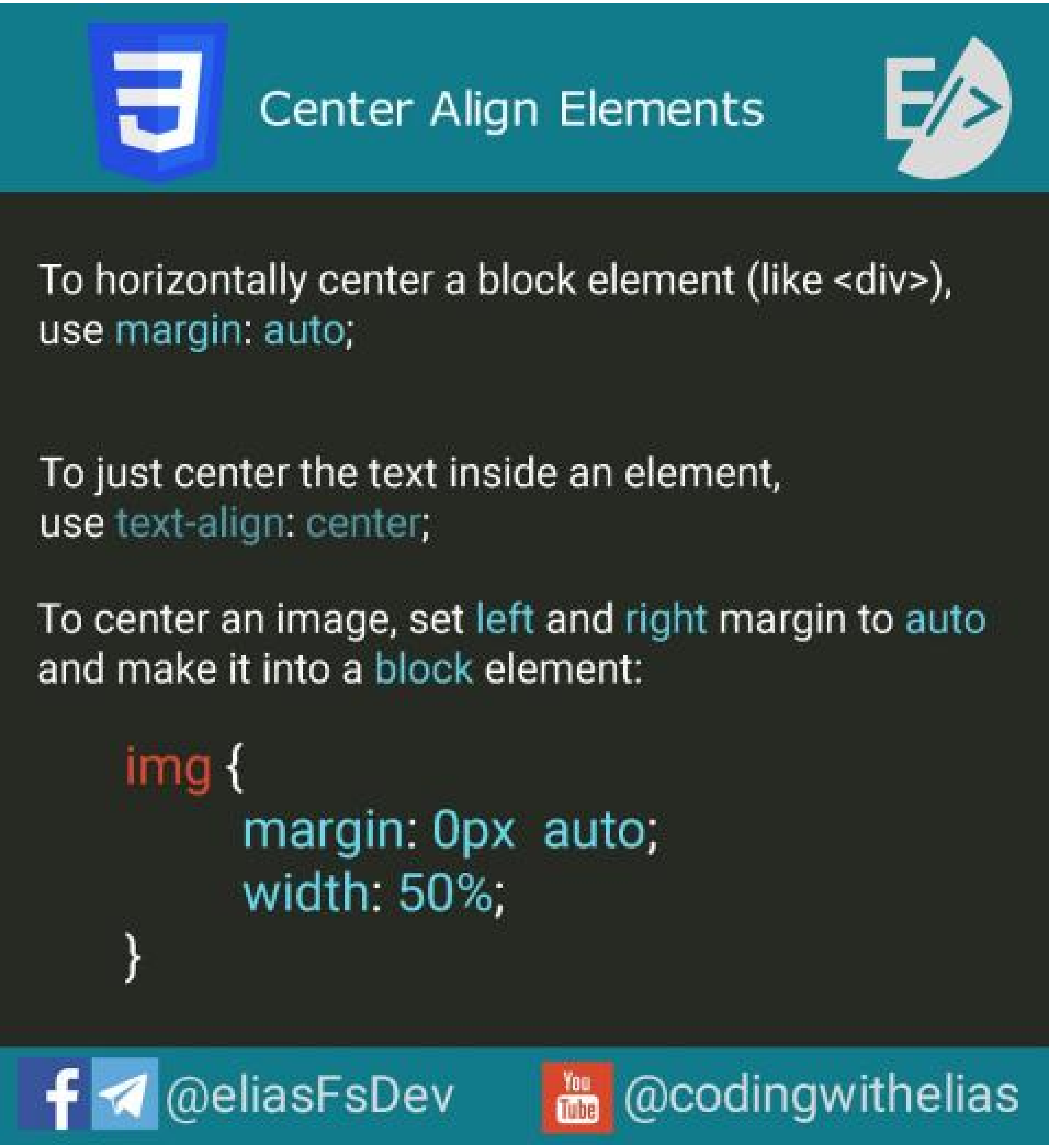
Center Align Elements

To horizontally center a block element (like <div>), use margin: auto;

To just center the text inside an element, use text-align: center;

To center an image, set left and right margin to auto and make it into a block element:

```
img {
        margin: 0px  auto;
        width: 50%;
}
```



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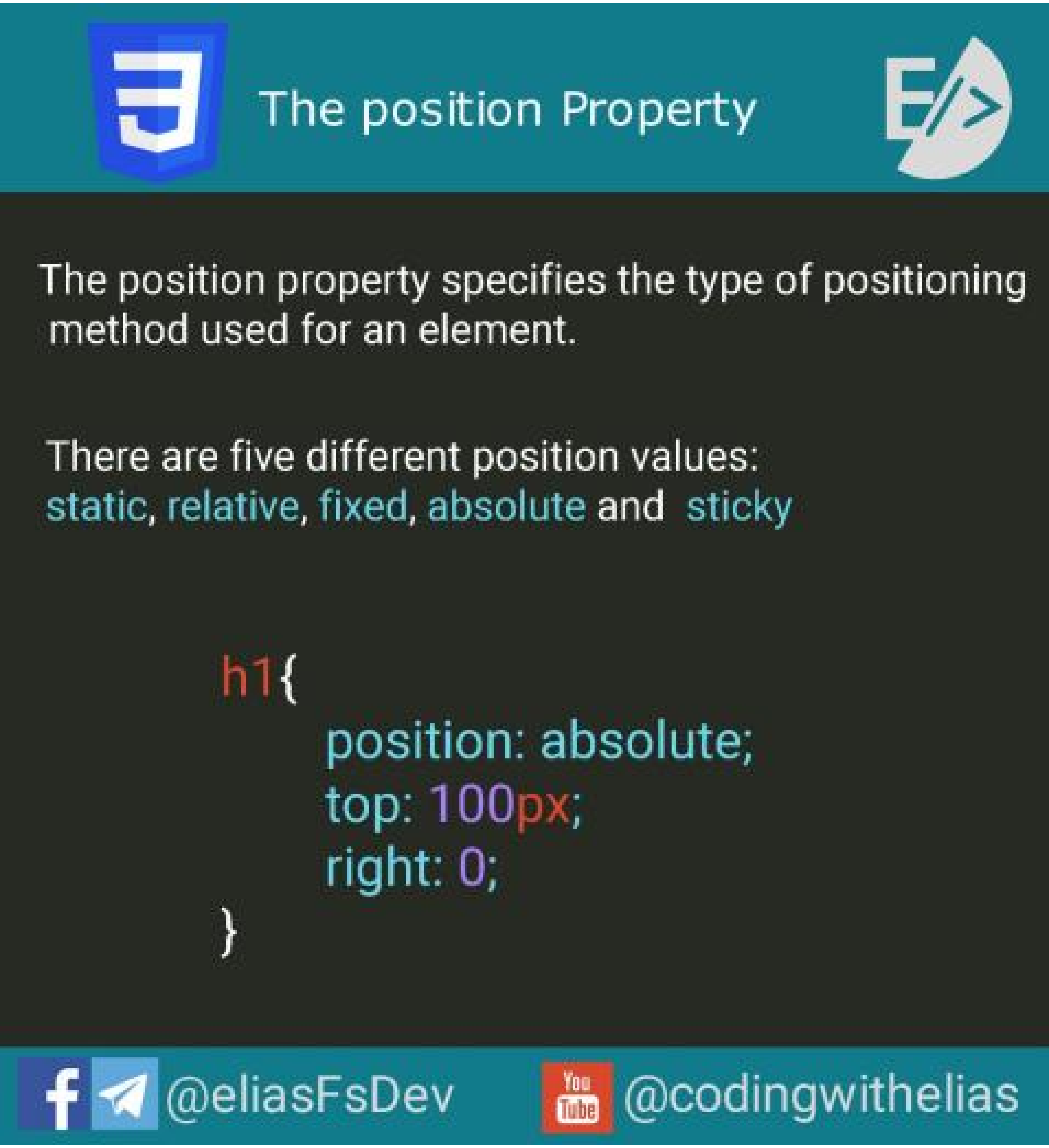
The position Property

The position property specifies the type of positioning method used for an element.

There are five different position values: static, relative, fixed, absolute and sticky

```
h1{
        position: absolute;
        top: 100px;
        right: 0;
}
```



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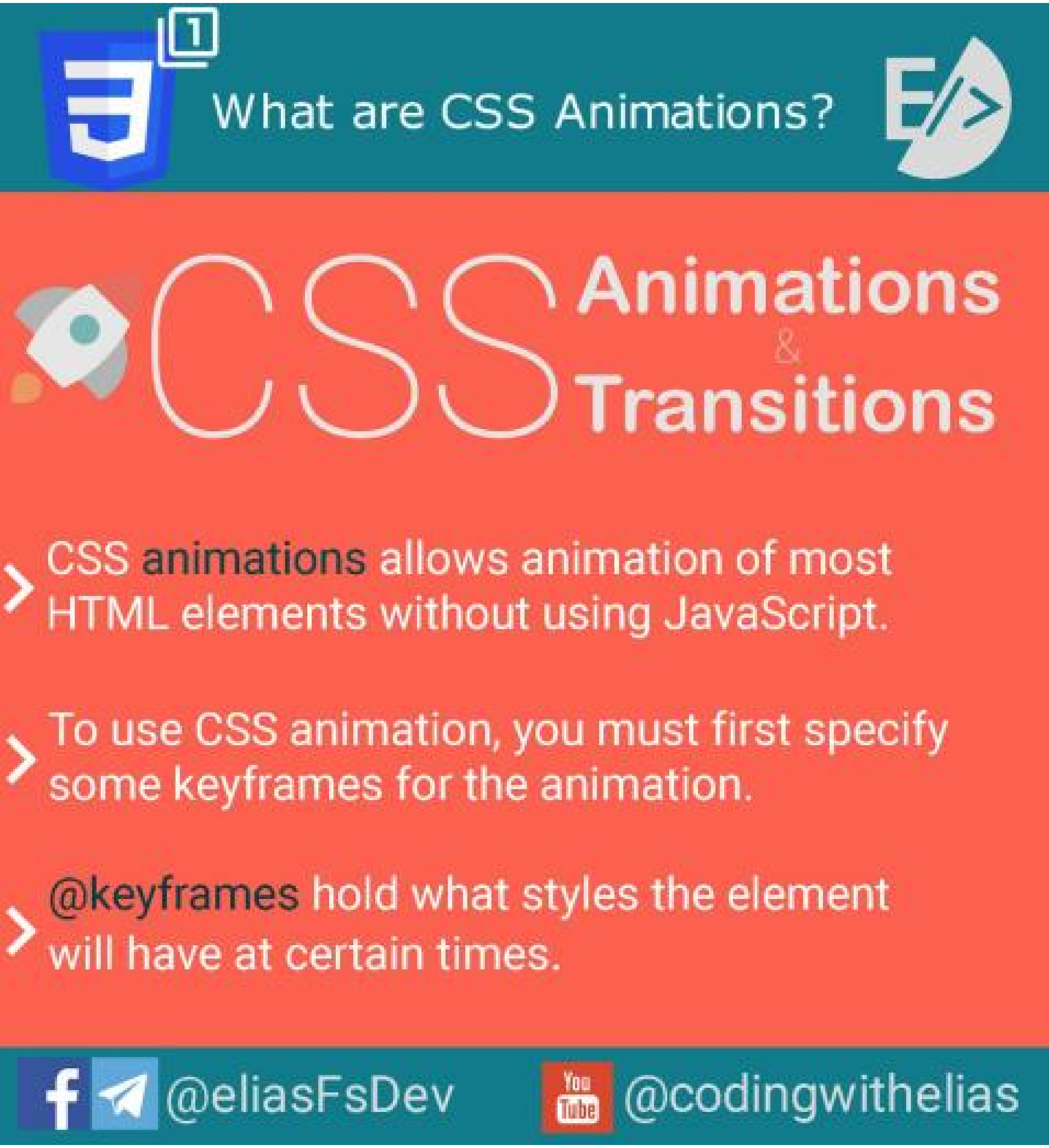
What are CSS Animations?

CSS Animations & Transitions

- CSS animations allows animation of most HTML elements without using JavaScript.
- To use CSS animation, you must first specify some keyframes for the animation.
- @keyframes hold what styles the element will have at certain times.



1

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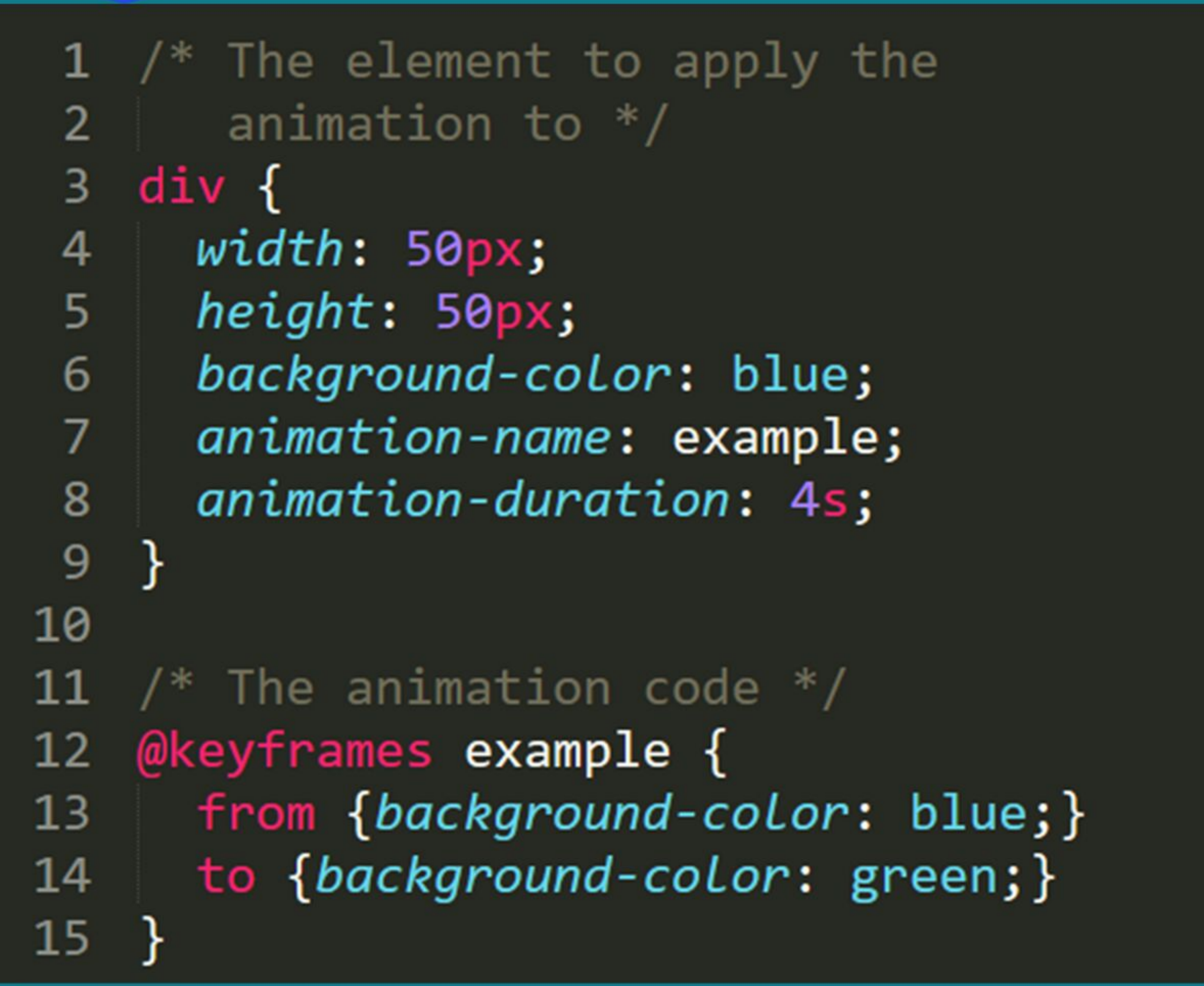
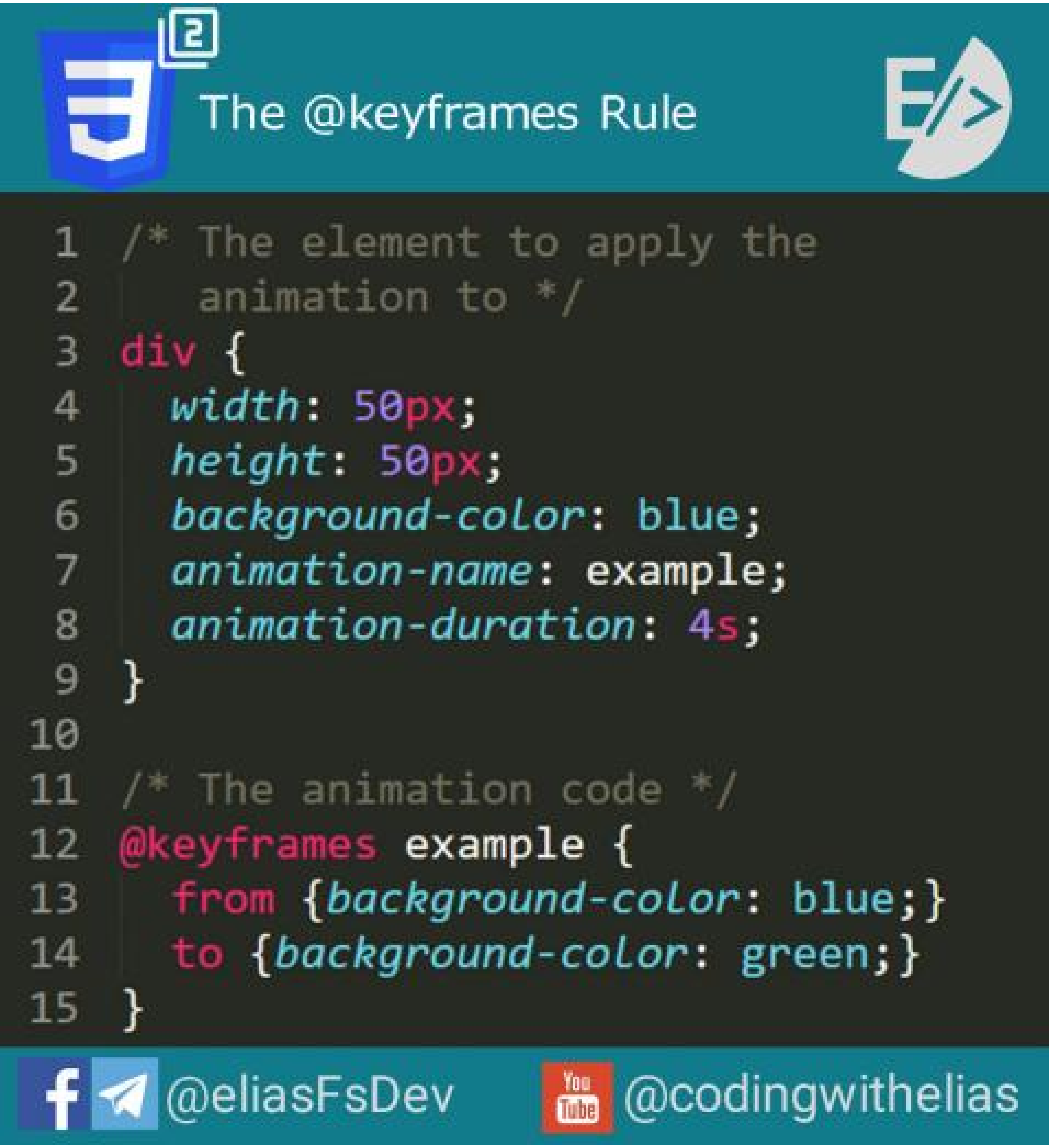
The @keyframes Rule



```css
/* The element to apply the
   animation to */
div {
  width: 50px;
  height: 50px;
  background-color: blue;
  animation-name: example;
  animation-duration: 4s;
}

/* The animation code */
@keyframes example {
  from {background-color: blue;}
  to {background-color: green;}
}
```



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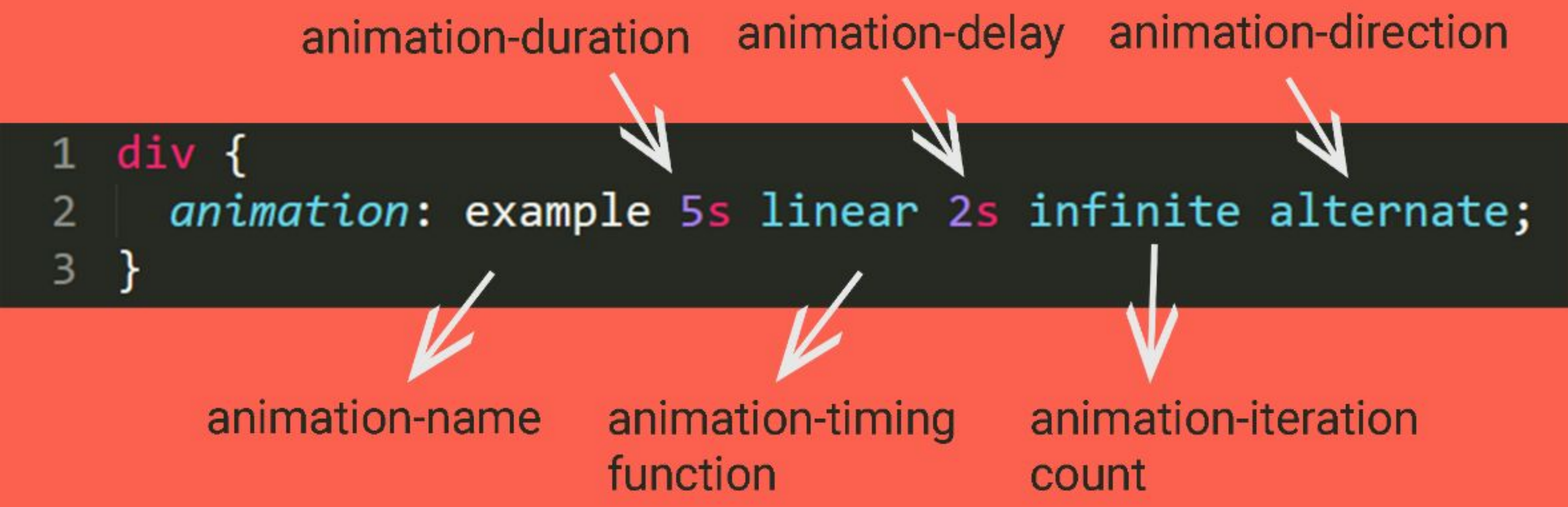
CSS Animation Properties -1

- **animation** A shorthand property for setting all the animation properties



animation-duration

animation-delay

animation-direction

```
div {
  animation: example 5s linear 2s infinite alternate;
}
```

animation-name

animation-timing function

animation-iteration count

- **animation-name** Specifies the name of the @keyframes animation
- **animation-delay** Specifies a delay for the start of an animation
- **animation-direction** Specifies whether an animation hould be played orwards, backwards or in alternate cycles

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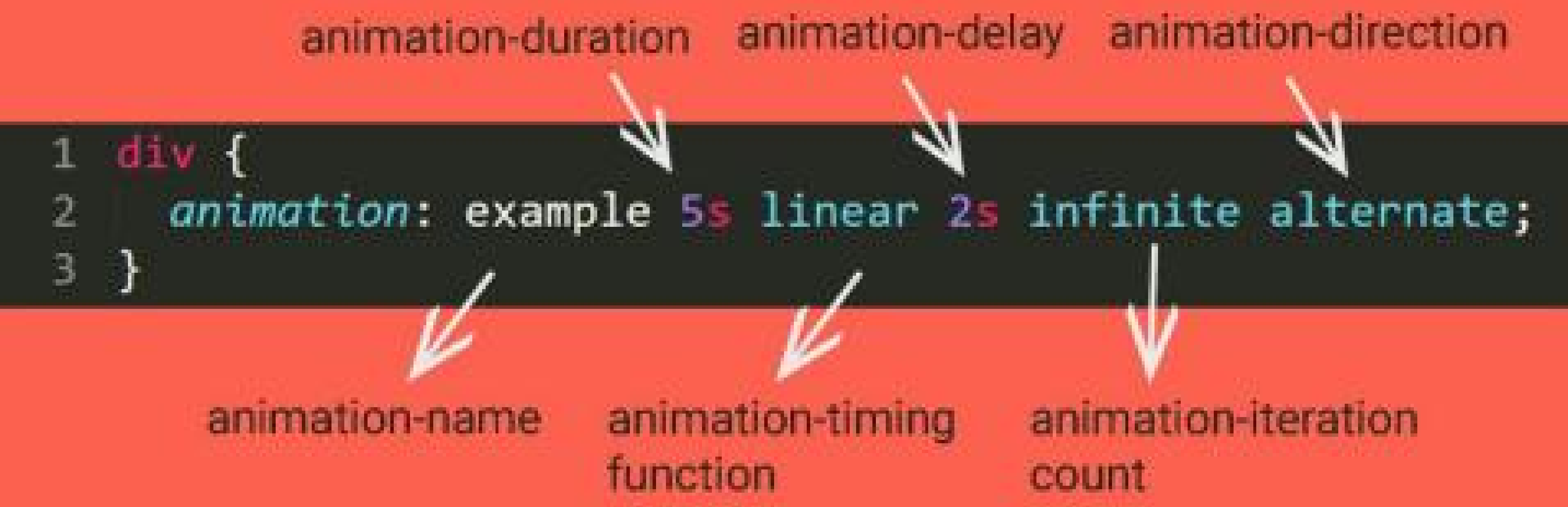
CSS Animation Properties -1

animation A shorthand property for setting all the animation properties



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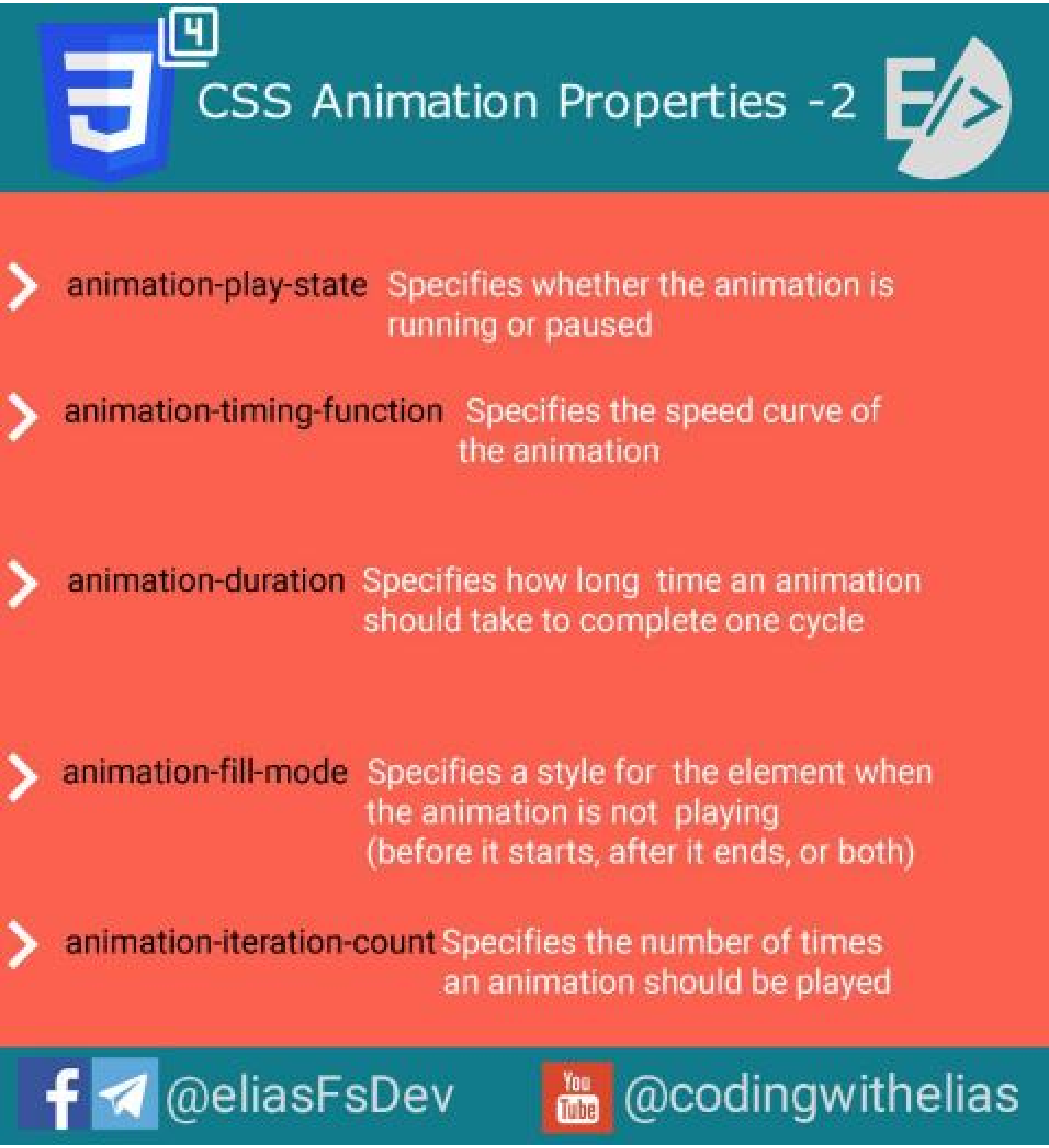
CSS Animation Properties -2

- animation-play-state Specifies whether the animation is running or paused
- animation-timing-function Specifies the speed curve of the animation
- animation-duration Specifies how long time an animation should take to complete one cycle
- animation-fill-mode Specifies a style for the element when the animation is not playing (before it starts, after it ends, or both)
- animation-iteration-count Specifies the number of times an animation should be played



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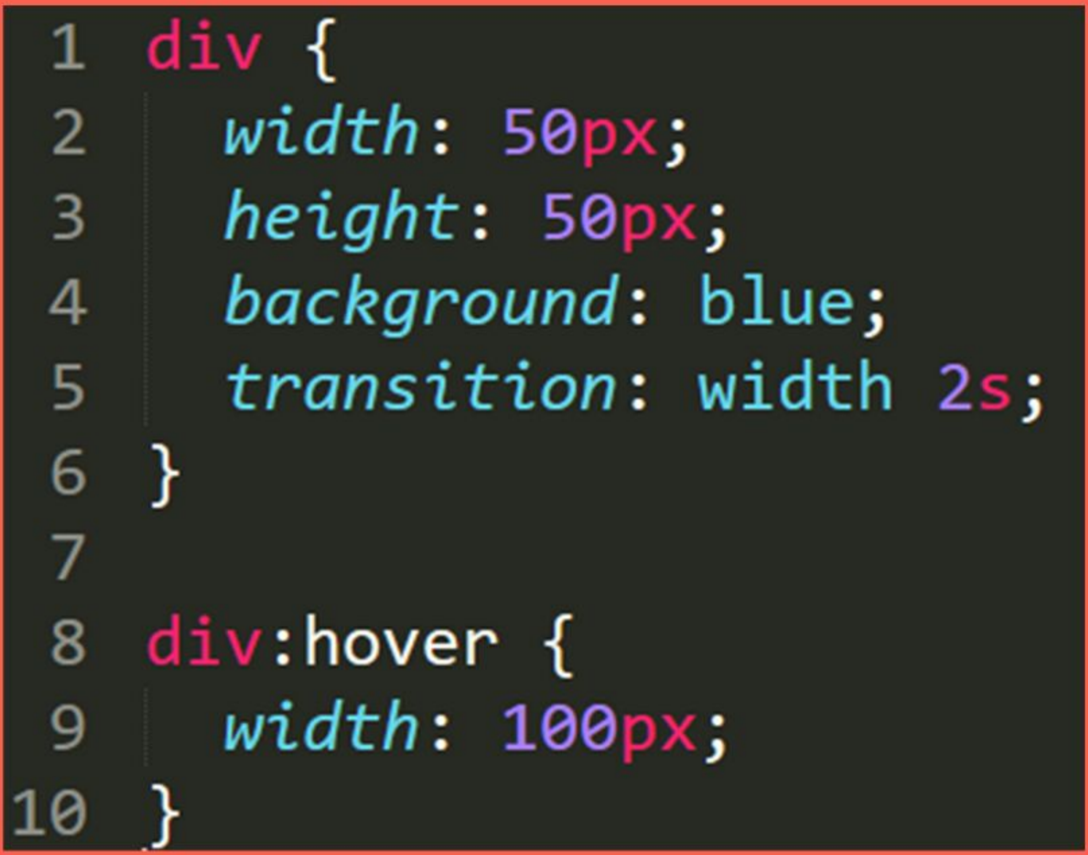
CSS Transitions

CSS transitions allows you to change property values smoothly (from one value to another), over a given duration.



```css
div {
  width: 50px;
  height: 50px;
  background: blue;
  transition: width 2s;
}

div:hover {
  width: 100px;
}
```

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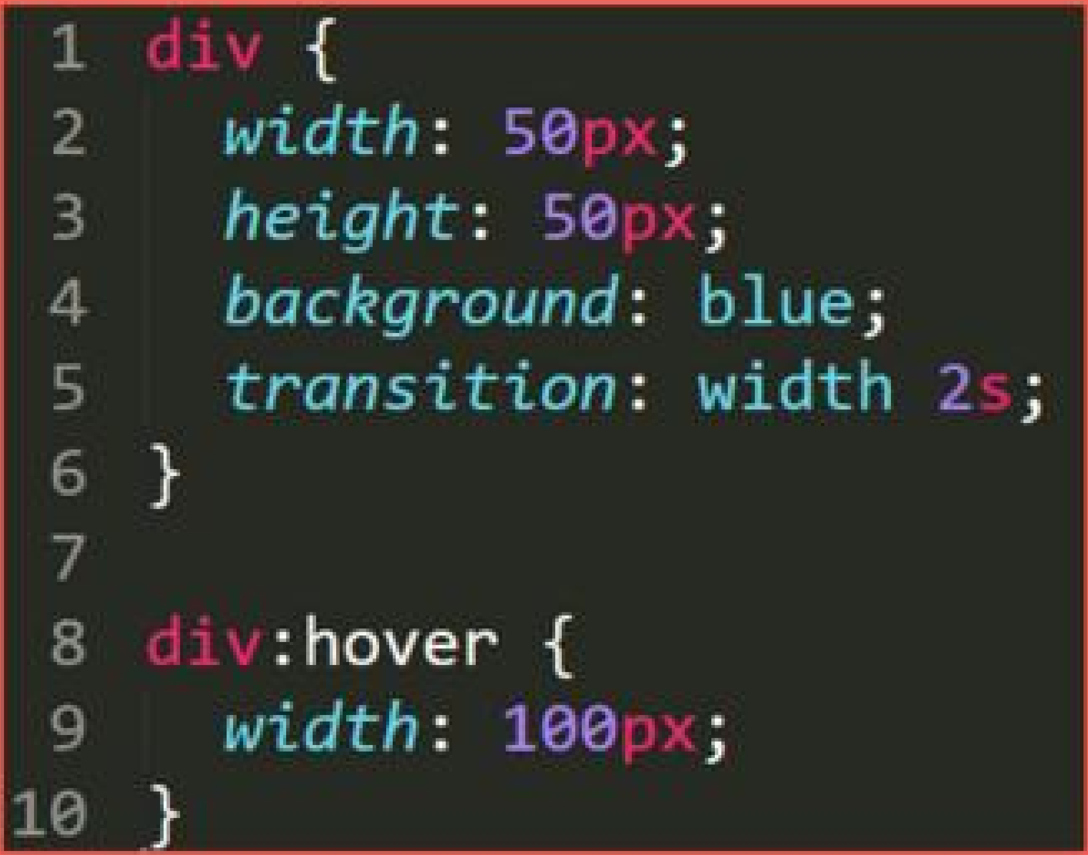

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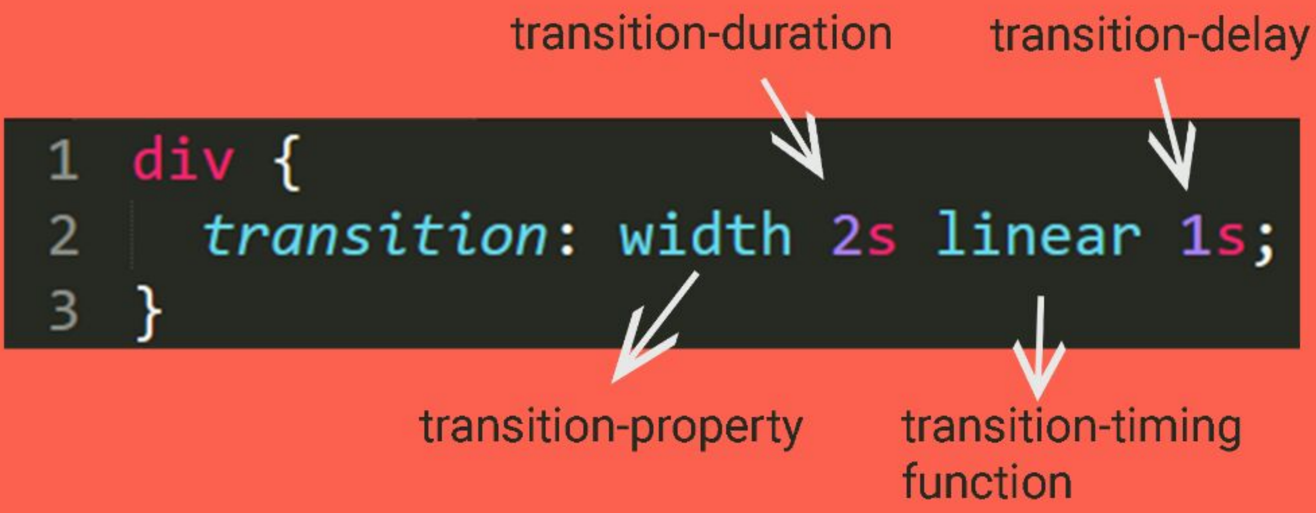
CSS Transition Properties

- **transition** A shorthand property for setting the four transition properties into a single property



```css
div {
  transition: width 2s linear 1s;
}
```

transition-duration

transition-delay

transition-property

transition-timing function

- **transition-delay** Specifies a delay (in seconds) for the transition effect
- **transition-duration** Specifies how many seconds or milliseconds a transition effect takes to complete
- **transition-property** Specifies the name of the CSS property the transition effect is for
- **transition-timing-function** Specifies the speed curve of the transition effect

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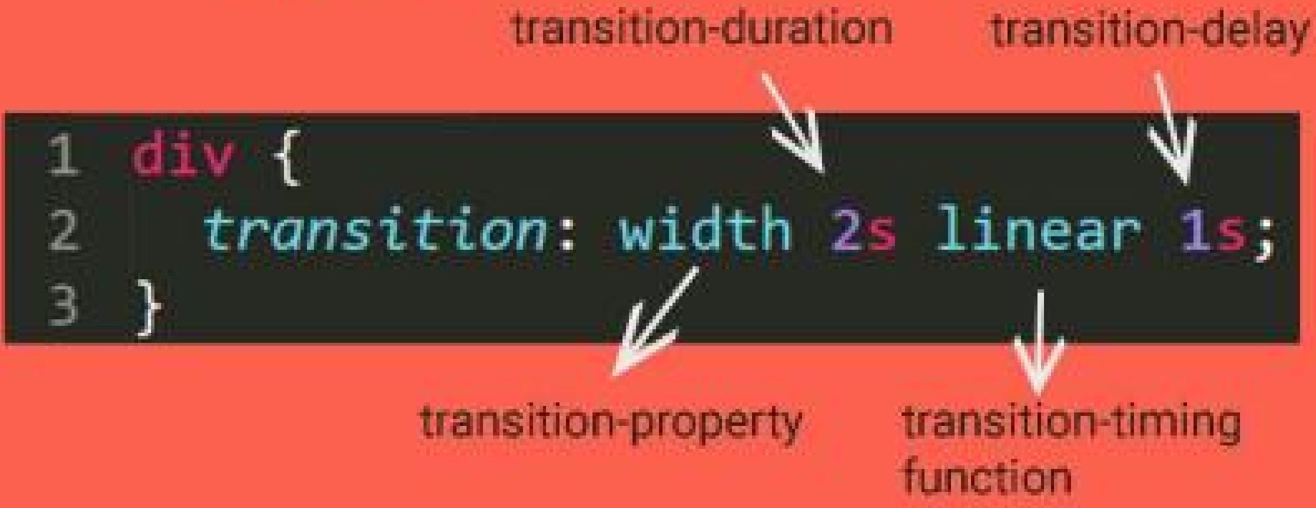

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