Introduction to Web Design

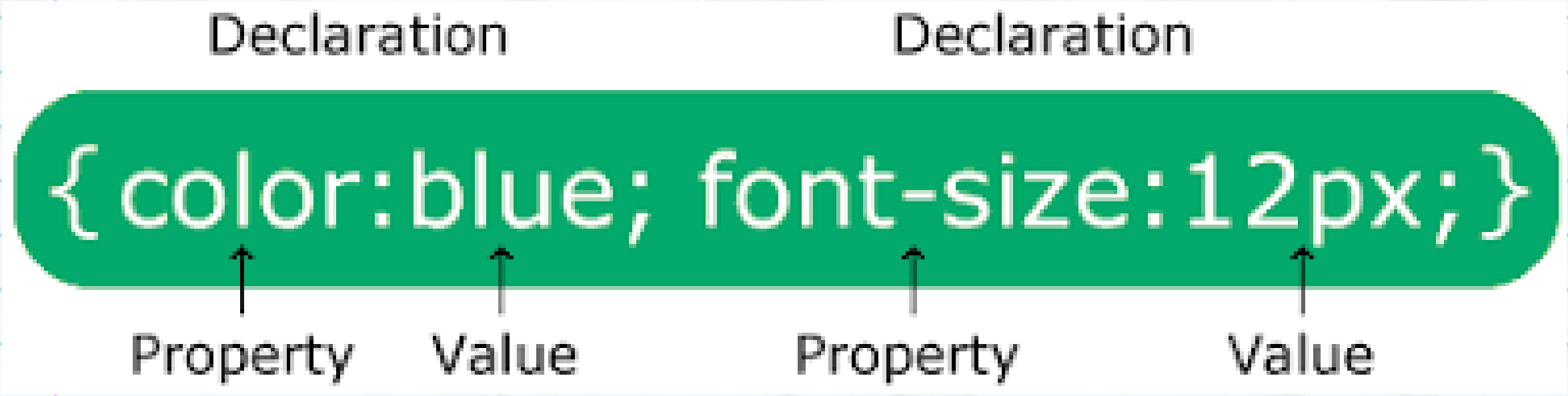
CSS Sessions

IBRAHIM M. RASHAD
Teaching Assisstant-specific edu

Cascading StyleSheet

Css

Css Syntax



CSS

Where to write Css

Inline

Internal

External

CSS

Cascading Order

Browser

External

Internal

Inline

If Conflict -> The **nearest** style will Applied

CSS

Css Comment

/* ..... */

CSS

Css Selectors

.Class Name

#ID

Element Name

Attribute name

* Astrick

[Attribute = Value]

[title~="flower"]

~

Selects all elements with a title attribute **containing** the word "flower"

[lang|="en"]

|

Selects all elements with a lang attribute value **equal** to "en" or **starting** with "en-"

a[href^="https"]

^

Selects every <a> element whose href attribute value **begins** with "https"

a[href$=".pdf"]

$

Selects every <a> element whose href attribute value **ends** with ".pdf"

a[href*="w3schools"]

$

Selects every <a> element whose href attribute value ***contains the substring*** "w3schools"

CSS

Colors

R G B

Color Name	red
Hex	#F44336
RGB(Red,Green,Blue)	rgb(255,0,0)
RGBA(Red,Green,Blue,Alpha)	rgba(255,0,0,0.6)

CSS

Colors

R G B

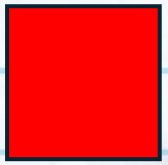
hsl(Hue, Saturation, Lightness)

hsl(Hue, Saturation, Lightness, Alpha)

H: 0 - 360

S : 0 – 100%

L : 0 – 100%



hsl(0, 100%, 50%)

hsla(0, 100%, 50%,0.6)

CSS

Background

background-color — Opacity *Vs* Alpha

background-image — *url ('image path')*

background-repeat — *no-repeat repeat-x repeat-y*

background-size — *auto – length – Percentage - cover - contain*

background-position — *Left – Right – Center – Top - Bottom*

X axis & y axis = Percent or Pixels

background-attachment — *Scroll – fixed - local*

CSS

Background Shorthand

```
background:
[background-color]
[background-image]
[background-repeat]
[background-attachment]
[background-position];
```

CSS

Css Gradient

- Linear Gradients (goes down/up/left/right/diagonally)
- Radial Gradients (defined by their center)
- Conic Gradients (rotated around a center point)

```
background-image: linear-gradient(
direction,
color-stop1,
color-stop2,
...);
```

Use angle instead of direction

```
background-image: linear-gradient(180deg, red, yellow);
```

CSS

Css Gradient

- **Radial Gradients (defined by their center)**

```
 background-image: radial-gradient(
red,
yellow,
green);
```

```
background-image: radial-gradient(
shape size at position,
start-color, ...,
last-color);
```

```
 background-image: radial-gradient(circle, red,
yellow, green);
```

CSS

Css Gradient

Conic Gradients (rotated around a center point)

```
background-image: conic-gradient(red, yellow, green);
```

CSS

Full Website Background

Demo

CSS

Borders

border-width

Px

border-style

Dotted Dashed
Solid Double
Groove Ridge
Inset Outset
None hidden

border-Color

RGB
HEX
HSL

Border-[top – right – bottom – left]: width style color

CSS

Borders Radius

border-radius

Px - Percent

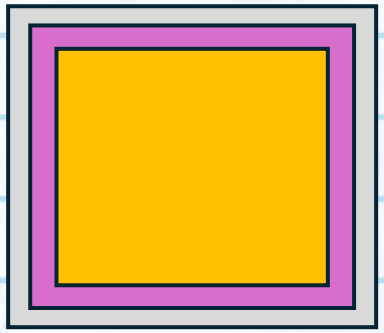
Border-top-left-radius

CSS

Padding & Margin

Padding

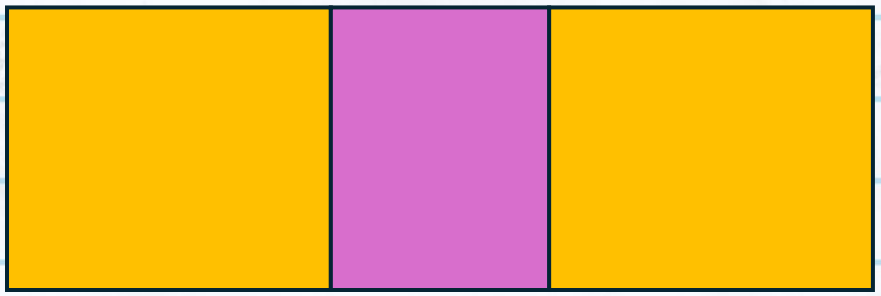
Px – Percent – cm - pt



No Negative Value

Margin

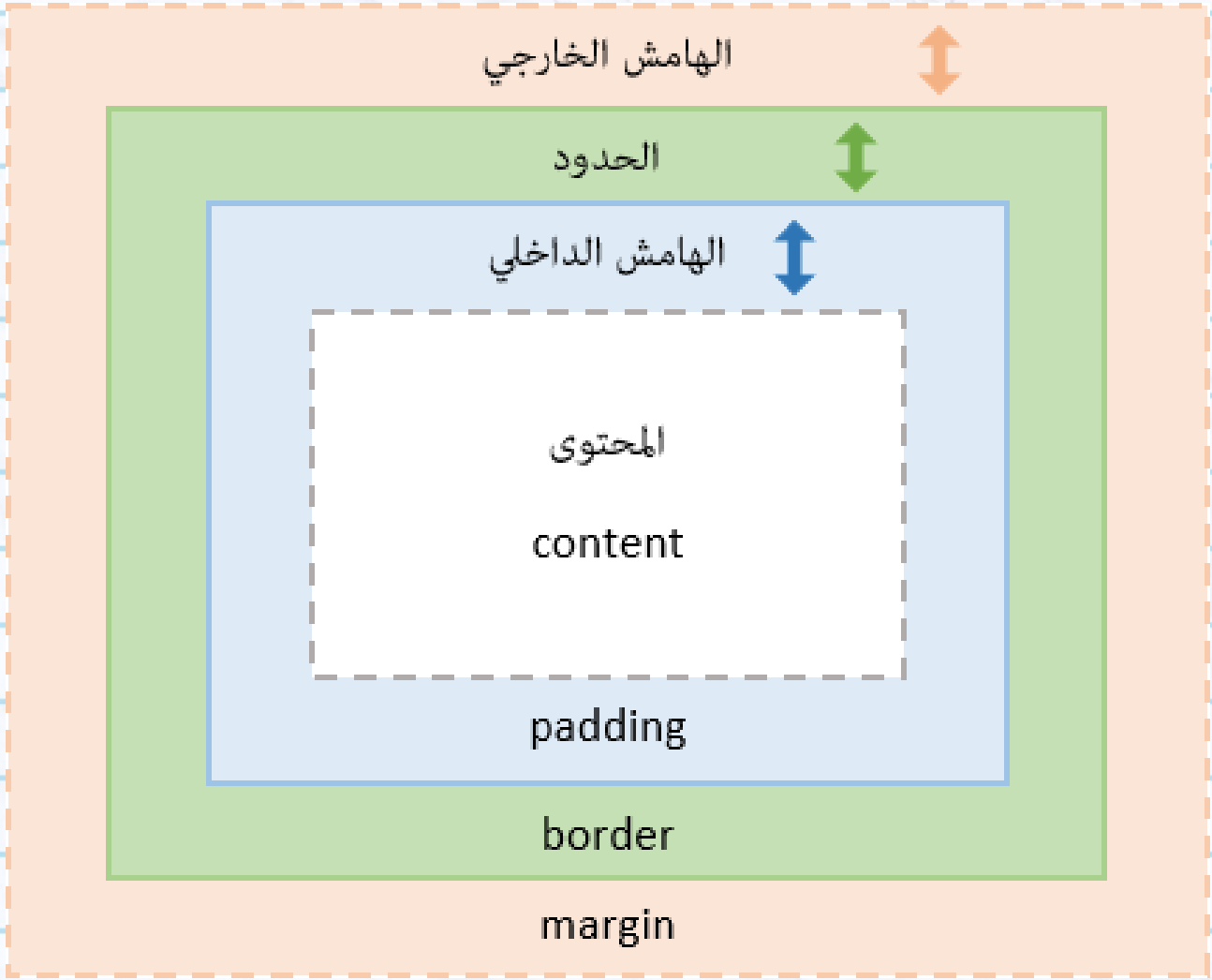
Px – Percent – cm - pt



Negative Value available

CSS

Padding – Margin - Border



CSS

Display

block

inline-block

inline

none

`Visibility: hidden` VS `display:none`

CSS

CSS Length Value & Units

absolute

Unit	Name	Equivalent to
`cm`	Centimeters	1cm = 37.8px = 25.2/64in
`mm`	Millimeters	1mm = 1/10th of 1cm
`Q`	Quarter-millimeters	1Q = 1/40th of 1cm
`in`	Inches	1in = 2.54cm = 96px
`pc`	Picas	1pc = 1/6th of 1in
`pt`	Points	1pt = 1/72nd of 1in
`px`	Pixels	1px = 1/96th of 1in

relative

rem
em
vw
Vh
Calc()
Percentages

CSS

Fonts

font-size

Absolute units
Relative units

```
font-size: 40px;
```

Font-Style

Normal
Italic
oblique

```
font-style: italic;
```

```
font-style: oblique 10deg;
```

Font-Family

Sans-serif
Cursive
Google Fonts

```
font-family: "Trebuchet MS", Helvetica, sans-serif;
```

Google Fonts Effect

- shadow-multiple
- Anaglyph
- Fire
- fire-animation
- outline
- 3d

```
<link rel="stylesheet" href="https://fonts.googleapis.com/css?family=Sofia">
```

CSS

Text

- Text-Color
- Text Alignment
- Text Decoration
- Text Spacing
- Text Shadow
- Text Transformation

Color: name,hex,rgb,hsl

text-align: center,left,right,justify
text-align-last center,right,justify
Direction: rtl,ltr
vertical-align: baseline,text-top,text-bottom, sub, super

Line > text-decoration-line : overline, line-through, underline, *both*
color>text-decoration-color: red
style> text-decoration-style : wavy, dotted, dashed , solid
thickness >text-decoration-thickness: px

(shorthand)

text-decoration: ***line*** *color style thickness*

CSS

Text

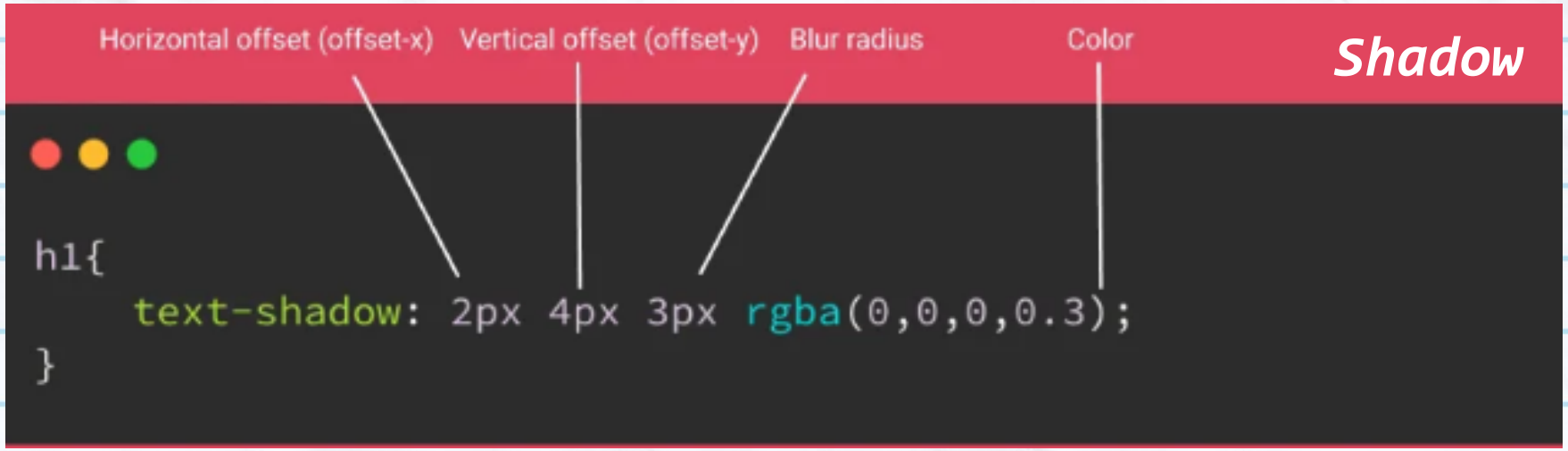
- Text-Color
- Text Alignment
- Text Decoration
- Text Spacing
- Text Shadow
- Text Transformation

spacing

- text-indent:
- letter-spacing:
- line-height :
- word-spacing :
- white-space:

```
text-indent: 50px;
letter-spacing: 5px;
line-height: 0.8;
word-spacing: 10px;
white-space: nowrap;
```

Shadow



- Uppercase
- Lowercase
- capitalize

CSS

Position

- static
- relative
- fixed
- absolute
- sticky

CSS

Pseudo (classes & Elements)

- :link
- :visited
- :hover
- :active
- :focus

- :first-child
- :last-child
- :first-of-type
- :nth-child( )

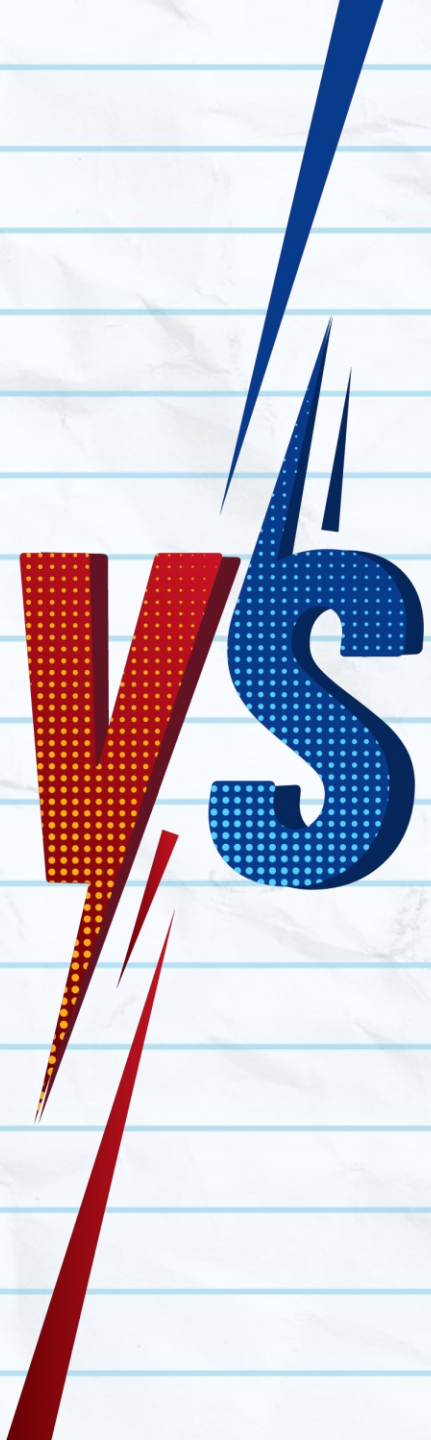
- ::after
- ::before

Shadow

CSS

Em unit

parent



Shadow

Rem unit

root

CSS

Flex Box

Flex Container

- flex-direction
- flex-wrap
- justify-content
- align-items
- align-content

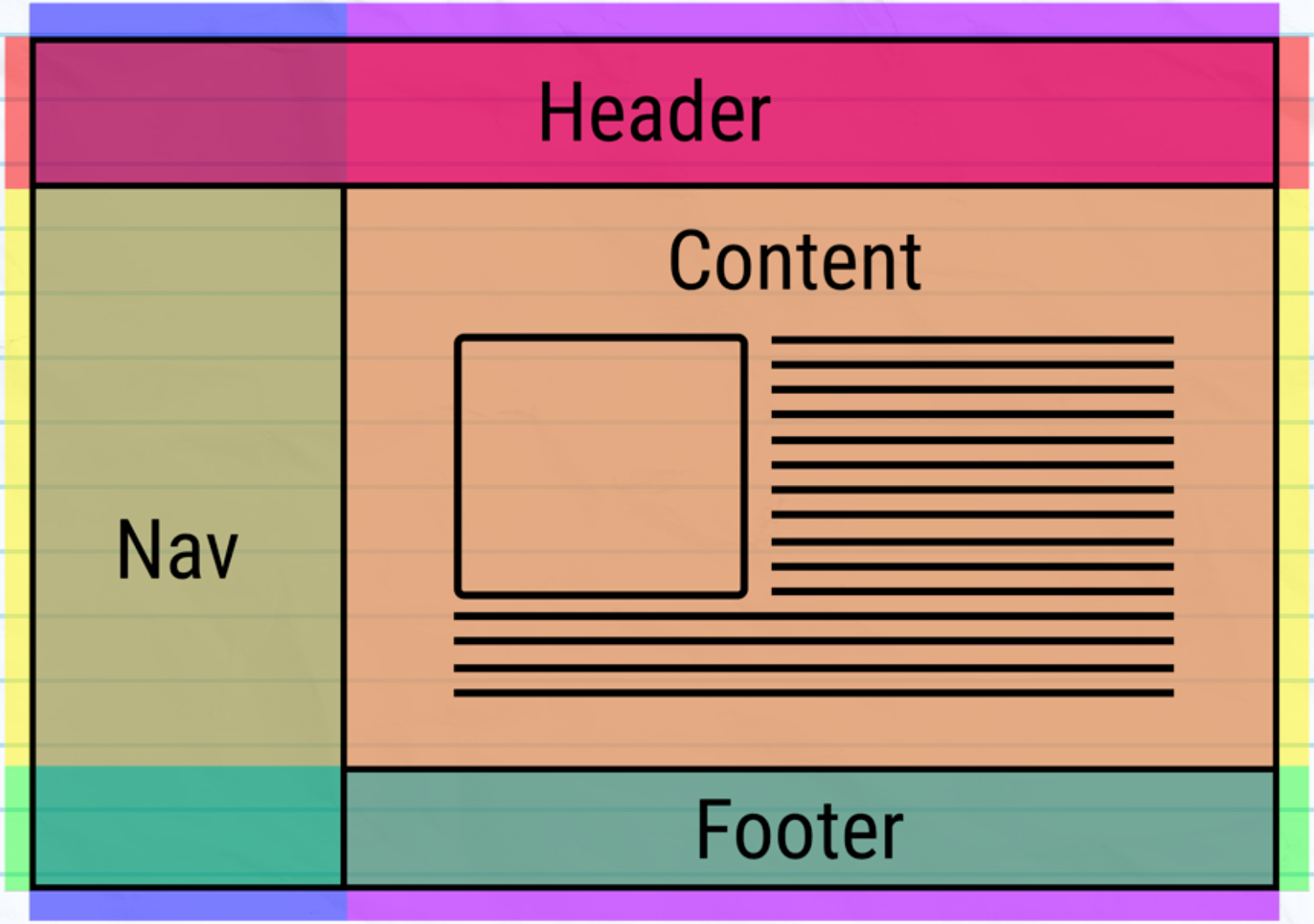
Flex items

- order
- flex-grow
- flex-shrink
- flex-basis
- align-self
- flex

Shadow

CSS

Grid Layout



CSS

Grid Layout

Container

Grid-template-columns

```
grid-template-columns: auto auto auto auto;
```

```
grid-template-columns: 80px 200px auto 30px;
```

Grid-template-rows

```
grid-template-rows: auto auto; (default)
```

```
grid-template-rows: 80px 200px;
```

justify-content

align-content

1fr

```
grid-template-rows: auto 1fr auto ;
```

CSS

Grid Layout

Item

grid-column

Start from / end before

```
.item1 {
    grid-column: 1 / 5;
  }
```

```
.item1 {
    grid-column: 1 / span 3;
  }
```

grid-row

Start from / end before

```
.item1 {
    grid-row: 1 / 4;
  }
```

grid-area

```
.item8 {
    grid-area: 1 / 2 / 5 / 6;
  }
```

S-row | S-col | e-row | e-col

```
.item8 {
    grid-area: 2 / 1 / span 2 / span 3;
  }
```

S-row | S-col | N-rows | N-cols

CSS

Grid Layout Naming Areas

Container

grid-template-areas

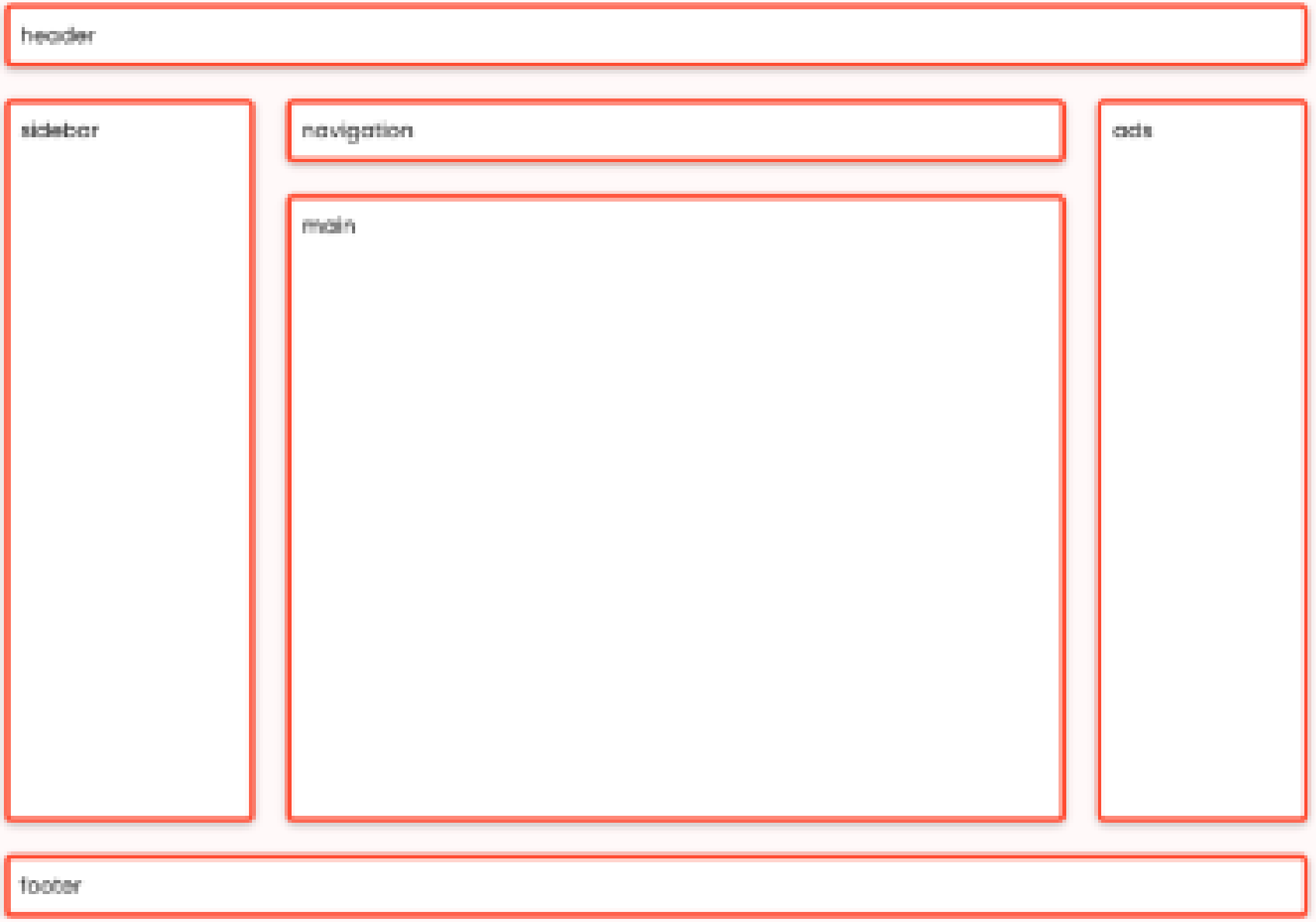
```
.container {
    grid-template-areas: 'myArea myArea . . . ';
  }
```

Set area name in item style

Demo

CSS

Grid Layout ex



CSS

Transform

Rotate()

```
div {
    transform: rotate(20deg);
}
```

Scale ()

```
div {
    transform: scale(1.2);
}

div {
    transform: scale(0.8);
}
```

Translate()

index.html

```
8   div {
9   transform: translate(40px, 80px);
10  }
```

Skew

```
div {
    transform: skewX(20deg);
}

div {
    transform: skew(-20deg);
}
```

```
matrix(scaleX, skewY, skewX, scaleY, translateX, translateY)
```

CSS

3D Transform

Rotate3d()

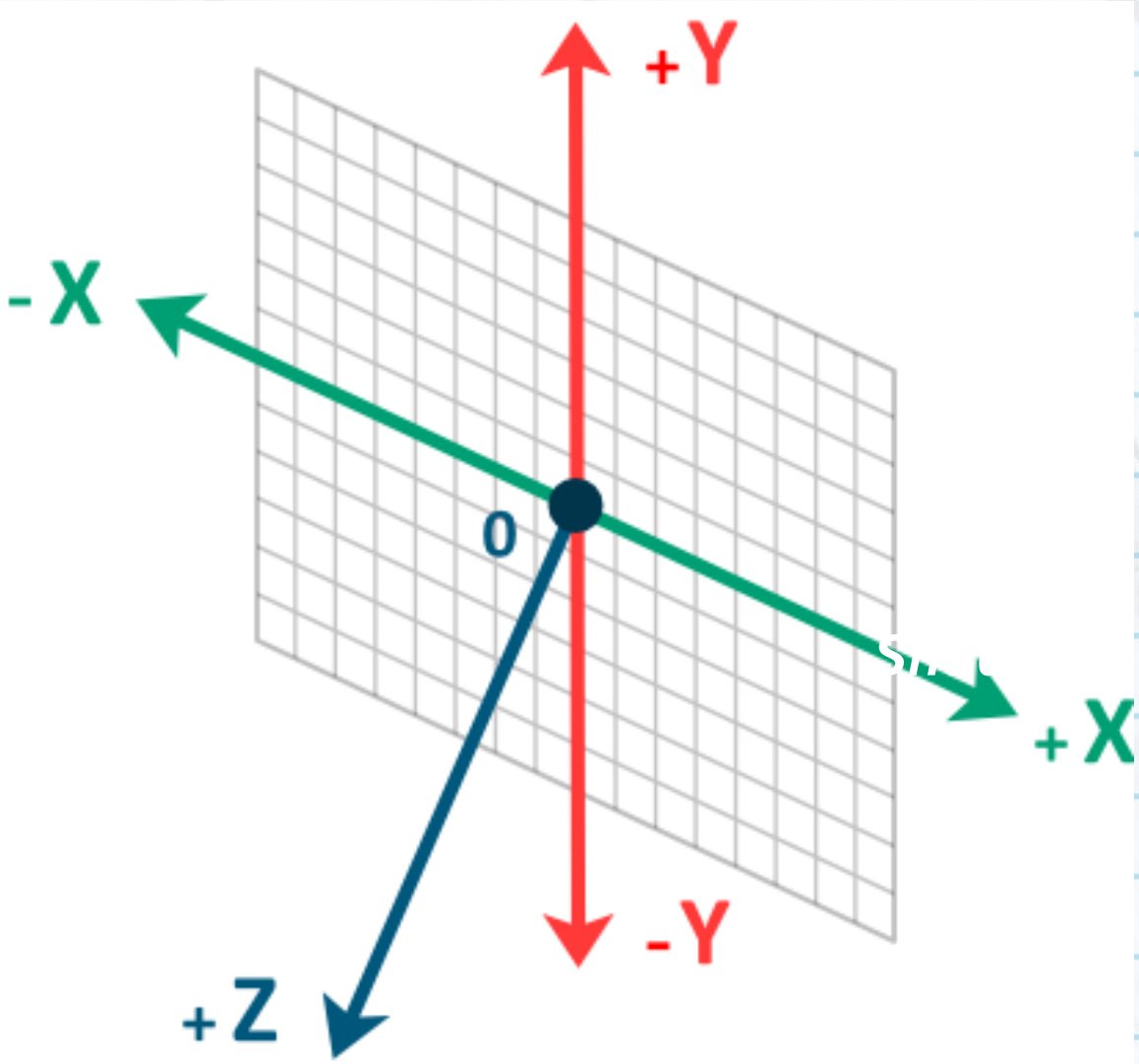
```
#demo {
    transform: rotate3d(1, 1, 1, 45deg);
}
```

Translate3d()

```
#demo {
    transform: translate3d(30px, 40px, -20px);
}
```

Scale3d ()

```
#demo {
    transform: scale3d(1.5, 1.2, 2);
}
```



perspective

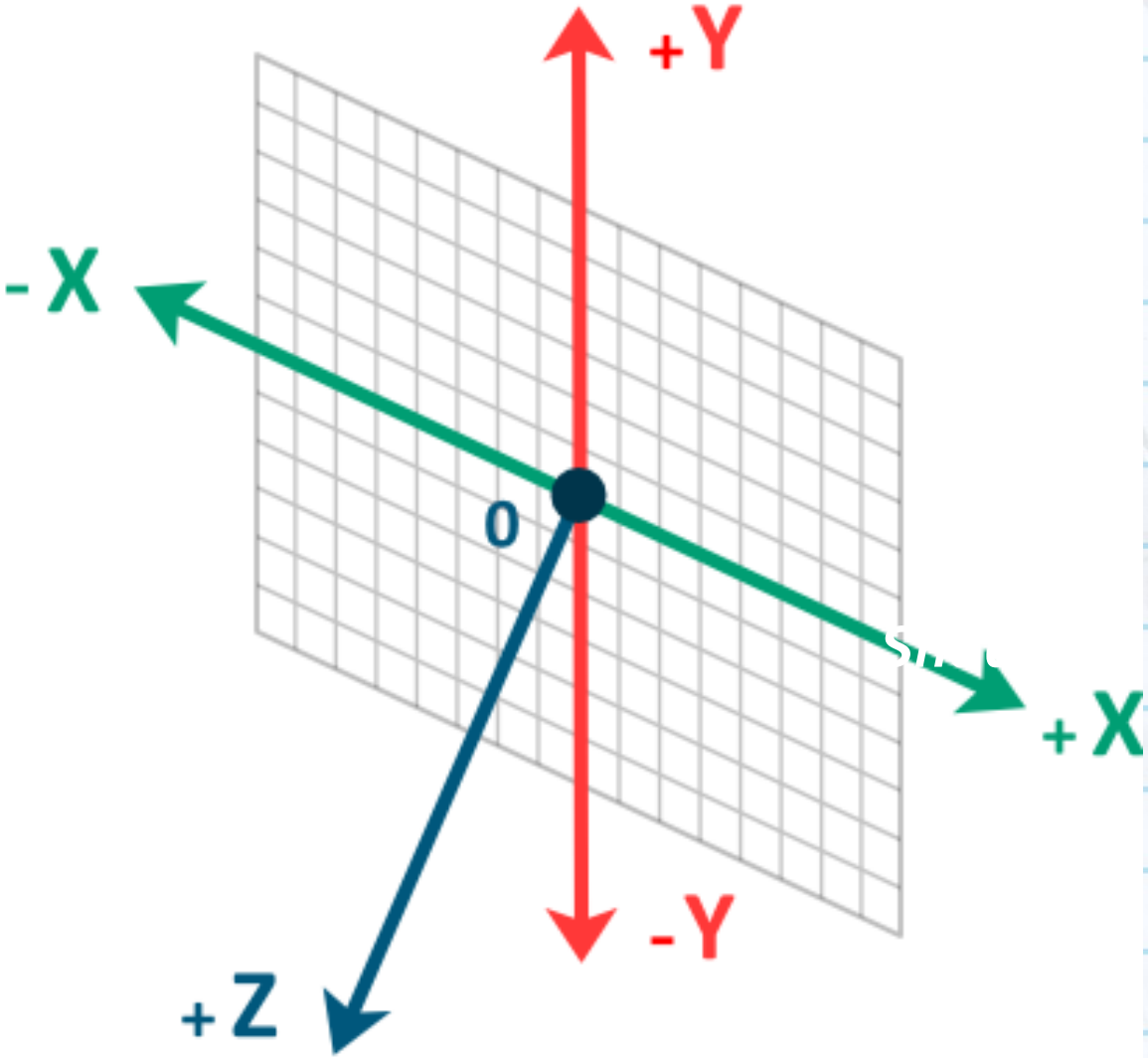
perspective-origin

CSS

3D Transform

perspective-origin

```
#demo {
    transform-origin: left top;
    transform: rotateZ(20deg);
}
```



CSS

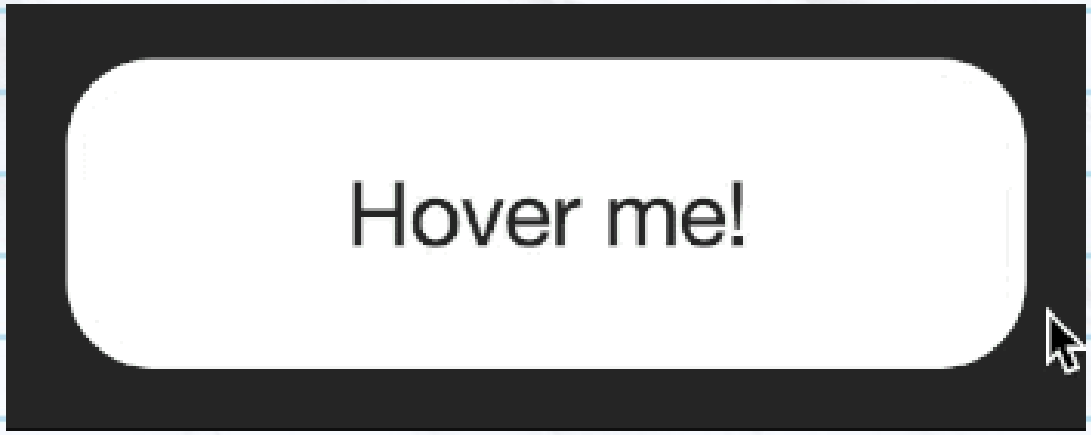
Transitions

transition-property

transition-duration

transition-delay

transition-timing-function



Shadow

Ease ,

Linear ,

ease in,

ease out,

ease-in-out

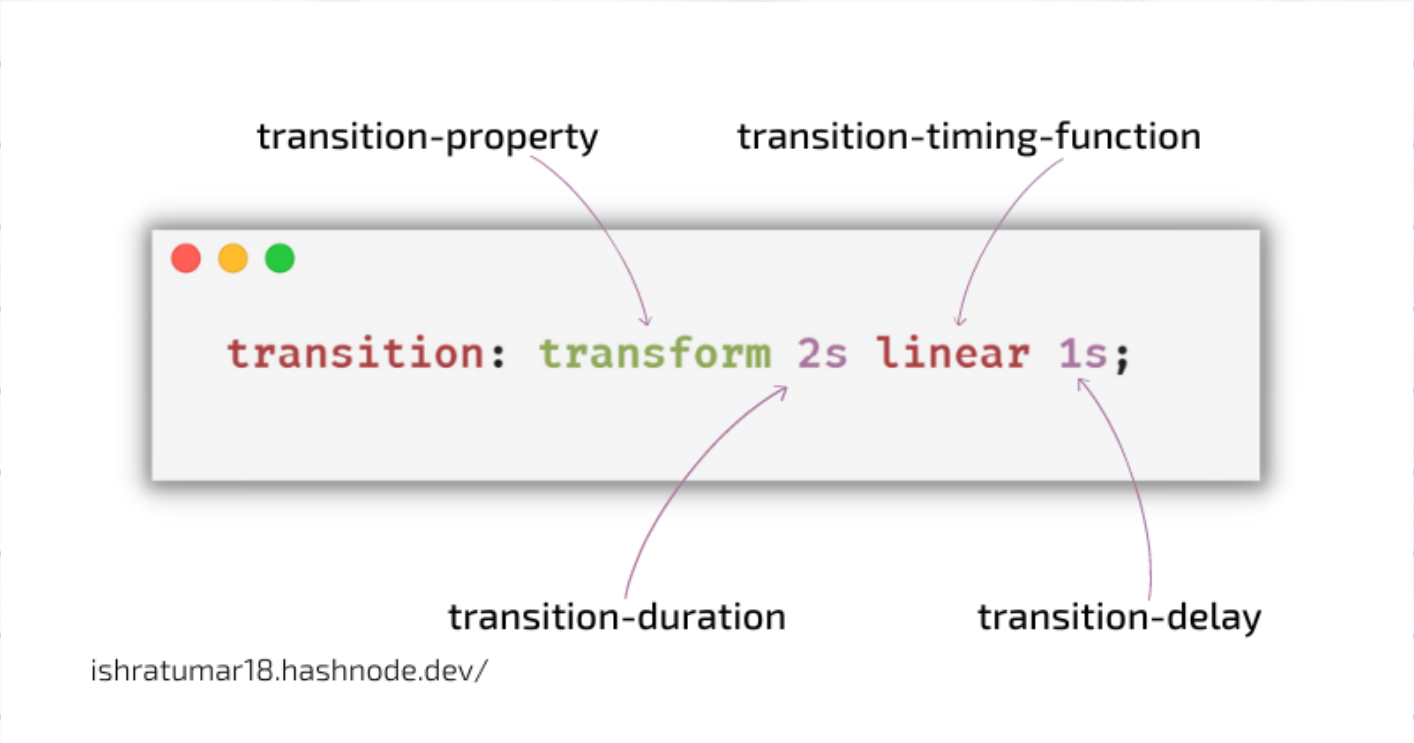
cubic-bezier(x1, y1, x2, y2)

steps(n, <jumpterm>)

CSS

Transitions

Transition Shorthand



Shadow

CSS

Animation

@keyframes

Animation-fill-mode

animation-name

animation-iteration-count

animation-duration

animation-direction

animation-delay

animation-timing-function

CSS

Animation

```
@keyframes example {
    from {
        background-color: red;
    }
    to {
        background-color: blue;
    }
}

div {
    background-color: red;
    animation-name: example;
    animation-duration: 3s;
}
```

Shadow

CSS

Animation

```
@keyframes example {
    0% {
        background-color: orange;
    }
    33% {
        background-color: red;
    }
    66% {
        background-color: blue;
    }
    100% {
        background-color: green;
    }
}
```

Shadow

CSS

Animation

animation-iteration-count

```
div {
    animation-name: example;
    animation-duration: 4s;
    animation-iteration-count: 3;
}
```

Int | infinite | default=1

Shadow

CSS

Animation

animation-direction

```
div {
    background-color: red;
    animation-name: example;
    animation-duration: 3s;
    animation-direction: alternate;
    animation-iteration-count: infinite;
}
```

Need count more than 1 or infinite

Shadow

Alternate | reverse | alternate-reverse | default=normal

S to E back S	E to S	E to S Back E	S to E

CSS

Animation

animation-direction

```css
div {
    width: 100px;
    height: 100px;
    position: relative;
    border-radius: 10px;
    background-color: red;
    animation-name: example;
    animation-duration: 2s;
    animation-direction: alternate;
    animation-iteration-count: infinite;
}
```

```css
@keyframes example {
    from {
        left: 10px;
        background-color: red;
        transform: rotateZ(0deg);
    }
    to {
        background-color: blue;
        left: calc(100% - 110px);
        transform: rotateZ(360deg);
    }
}
```

CSS

Animation

animation-fill-mode

None | forward | backward | both

default	Last frame	Frist frame	Start & end state

CSS

Animation

animation-play-state

paused

running

Default

Demo

CSS

Animation

Animation Shorthand

animation:

- name
- duration
- timing
- delay
- count
- Direction
- fill-mode
- state

```
div {
    width: 100px;
    height: 100px;
    border-radius: 10px;
    position: relative;
    animation-name: example;
    animation-duration: 4s;
    animation-timing-function: linear;
    animation-delay: 2s;
    animation-iteration-count: infinite;
    animation-direction: alternate;
    animation-fill-mode:both ;
    /*short Hand*/
    animation: example 4s linear 2s infinite alternate both;
}
```

CSS

```css
#focus-container {
    perspective: 800px;
    display: flex;
    align-items: center;
    justify-content: center;
    height: 100vh;
    background: linear-gradient(135deg, #eee, #ddd);
}
section {
    width: 400px;
    height: 360px;
    transform-style: preserve-3d;
    position: relative;
    transition: all 0.7s ease;
}
#frist:hover {
    transform: rotateY(180deg);
}
div {
    position: absolute;
    left: 0;
    top: 0;
    backface-visibility: hidden;
    width: 100%;
    height: 270px;
    outline: 1px solid red;
}
```

CSS

Media Query

```
<style>

   div {color: red;}

   @media (max-width: 500px) {
   div {color: blue;}
   }

</style>
```

```
<style>

   div {color: red;}

   @media (min-width: 500px) and (max-width: 700px) {
   div {color: blue;}
   }

</style>
```

Max-width : value less than

min-width : value greater than