

RESPONSIVE
DESIGN.

CSS VARIABLES
ANIMATIONS

DESIGN TOOLS



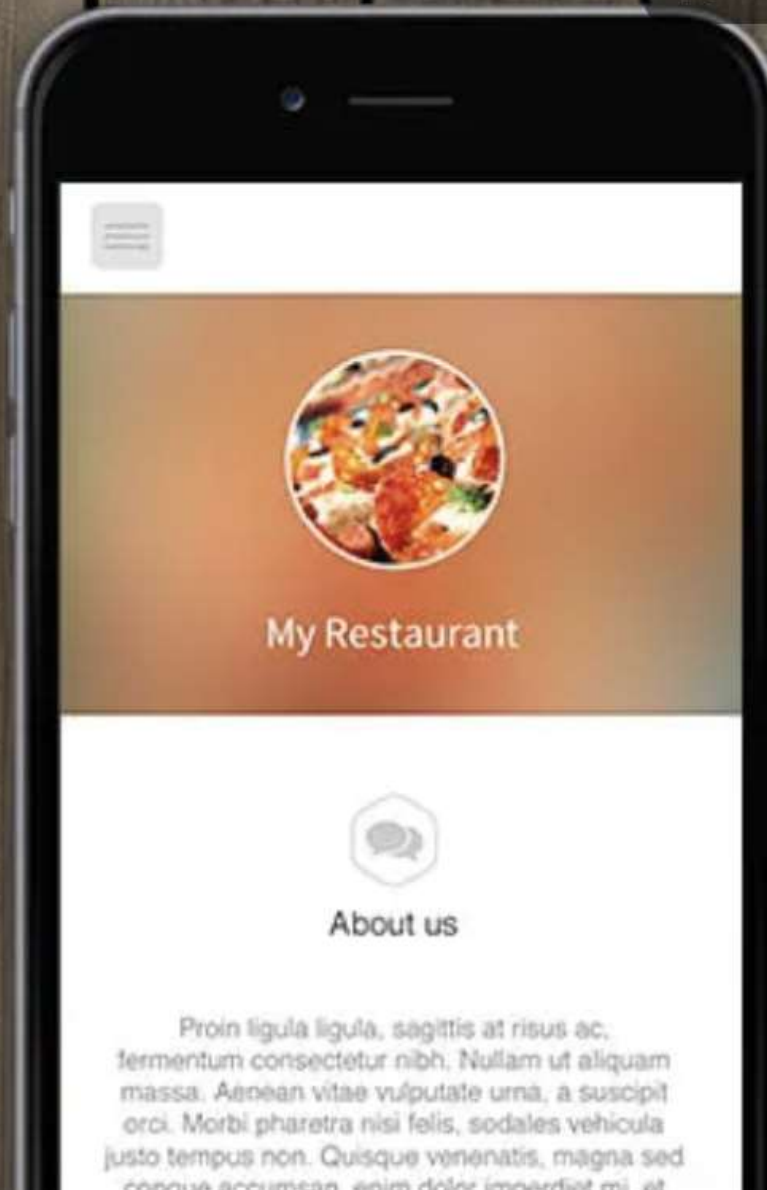
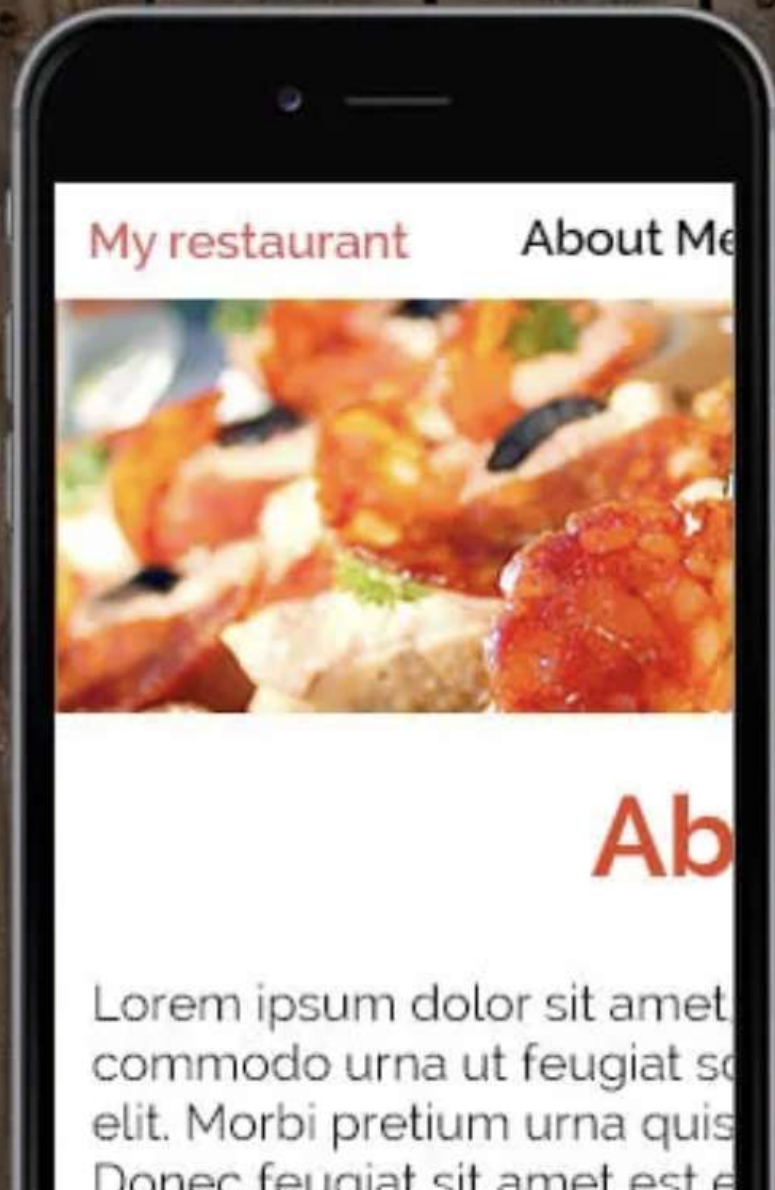
What is responsive design ?



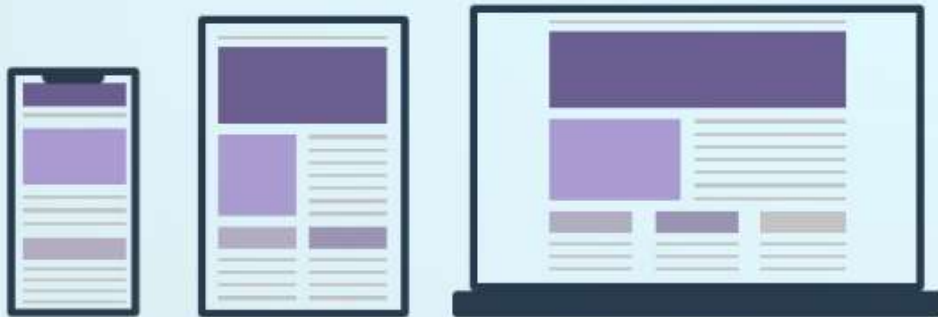
Unresponsive

Responsive

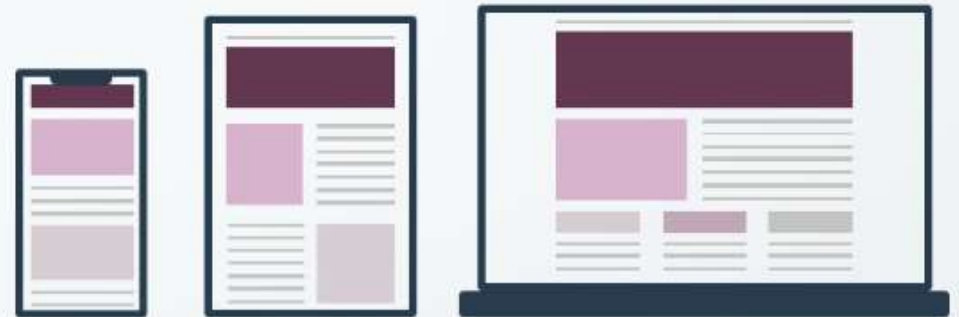
Full Screen



RESPONSIVE DESIGN



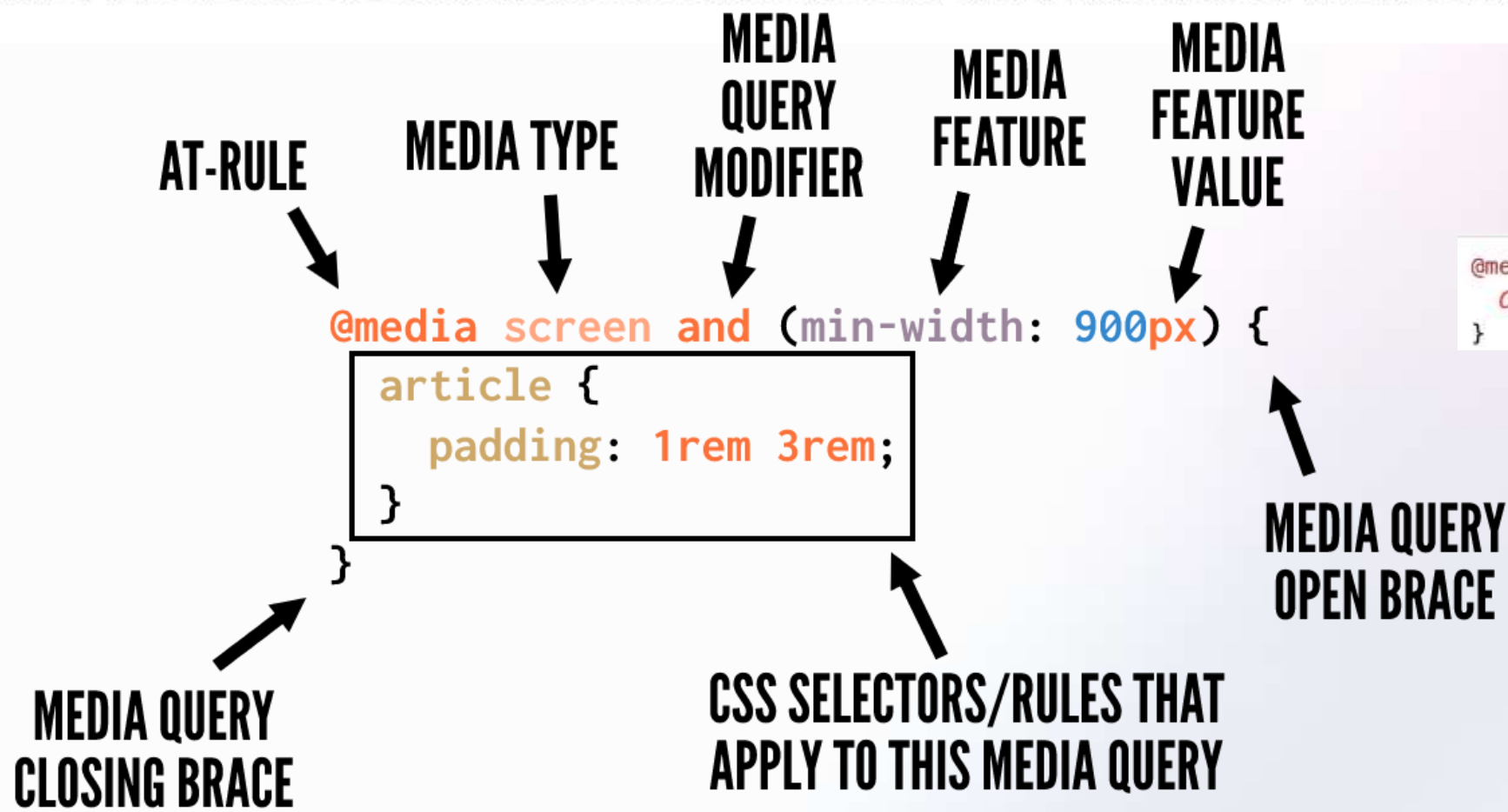
ADAPTIVE DESIGN



CSS Media

The `@media` rule, introduced in CSS2, made it possible to define different style rules for different media types.

Examples: You could have one set of style rules for computer screens, one for printers, one for handheld devices, one for television-type devices, and so on.



```
@media not|only mediatype and (expressions) {  
  CSS-Code;  
}
```

```
<link rel="stylesheet" media="mediatype and|not|only (expressions)" href="print.css">
```

CSS Media Types

Value	Description
all	Used for all media type devices
print	Used for printers
screen	Used for computer screens, tablets, smart-phones etc.
speech	Used for screenreaders that "reads" the page out loud

Device breakpoints

```
/* Extra small devices (phones, 600px and down) */  
@media only screen and (max-width: 600px) {...}
```

```
/* Small devices (portrait tablets and large phones, 600px and up) */  
@media only screen and (min-width: 600px) {...}
```

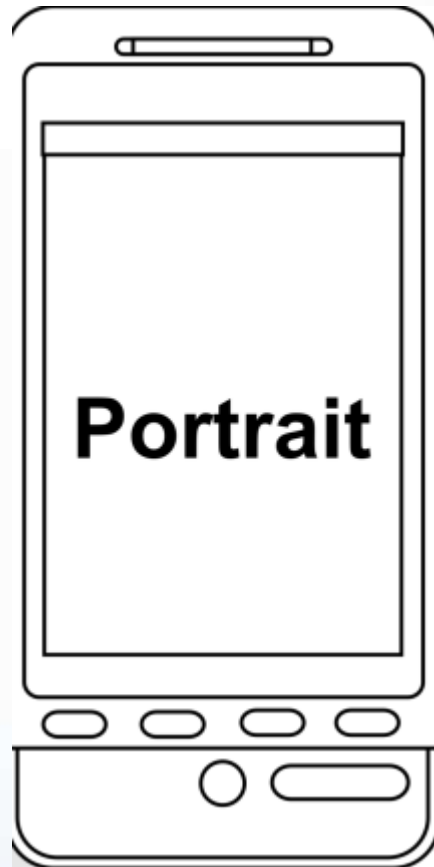
```
/* Medium devices (landscape tablets, 768px and up) */  
@media only screen and (min-width: 768px) {...}
```

```
/* Large devices (laptops/desktops, 992px and up) */  
@media only screen and (min-width: 992px) {...}
```

```
/* Extra large devices (large laptops and desktops, 1200px and up) */  
@media only screen and (min-width: 1200px) {...}
```

Orientation: Portrait / Landscape

```
@media only screen and (orientation: landscape) {  
  body {  
    background-color: lightblue;  
  }  
}
```



Mix

```
@media print {  
  body { font-size: 10pt; }  
}  
  
@media screen {  
  body { font-size: 13px; }  
}  
  
@media screen, print {  
  body { line-height: 1.2; }  
}  
  
@media only screen  
  and (min-width: 320px)  
  and (max-width: 480px)  
  and (resolution: 150dpi) {  
  body { line-height: 1.4; }  
}
```

CSS Animations

```
/* The animation code */
```

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

```
/* The element to apply the animation to */
```

```
div {  
  width: 100px;  
  height: 100px;  
  background-color: red;  
  animation-name: example;  
  animation-duration: 4s;  
}
```

```
@keyframes example {  
  0%   {background-color:red; left:0px; top:0px;}  
  25%  {background-color:yellow; left:200px; top:0px;}  
  50%  {background-color:blue; left:200px; top:200px;}  
  75%  {background-color:green; left:0px; top:200px;}  
  100% {background-color:red; left:0px; top:0px;}  
}
```

The `animation-delay` property specifies a delay for the start of an animation.

The `animation-iteration-count` property specifies the number of times an animation should run.

CSS Animations

The `animation-direction` property specifies whether an animation should be played forwards, backwards or in alternate cycles.

The animation-direction property can have the following values:

- `normal` - The animation is played as normal (forwards). This is default
- `reverse` - The animation is played in reverse direction (backwards)
- `alternate` - The animation is played forwards first, then backwards
- `alternate-reverse` - The animation is played backwards first, then forwards

The `animation-timing-function` property specifies the speed curve of the animation.

The animation-timing-function property can have the following values:

- `ease` - Specifies an animation with a slow start, then fast, then end slowly (this is default)
- `linear` - Specifies an animation with the same speed from start to end
- `ease-in` - Specifies an animation with a slow start
- `ease-out` - Specifies an animation with a slow end
- `ease-in-out` - Specifies an animation with a slow start and end
- `cubic-bezier(n,n,n,n)` - Lets you define your own values in a cubic-bezier function

CSS Animations

The `animation-fill-mode` property specifies a style for the target element when the animation is not playing (before it starts, after it ends, or both).

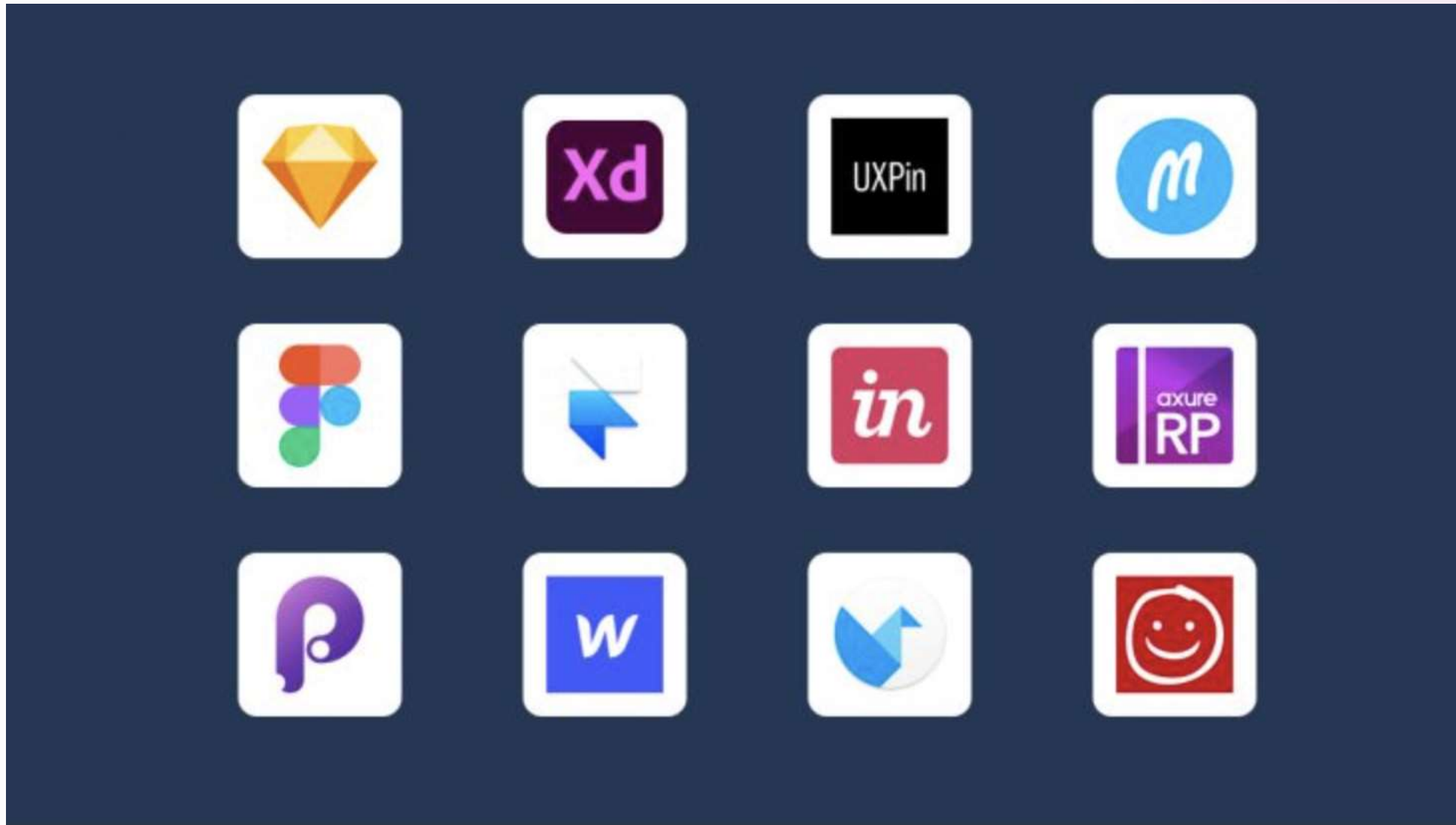
The animation-fill-mode property can have the following values:

- `none` - Default value. Animation will not apply any styles to the element before or after it is executing
- `forwards` - The element will retain the style values that is set by the last keyframe (depends on animation-direction and animation-iteration-count)
- `backwards` - The element will get the style values that is set by the first keyframe (depends on animation-direction), and retain this during the animation-delay period
- `both` - The animation will follow the rules for both forwards and backwards, extending the animation properties in both directions

```
div {  
  animation-name: example;  
  animation-duration: 5s;  
  animation-timing-function: linear;  
  animation-delay: 2s;  
  animation-iteration-count: infinite;  
  animation-direction: alternate;  
}
```

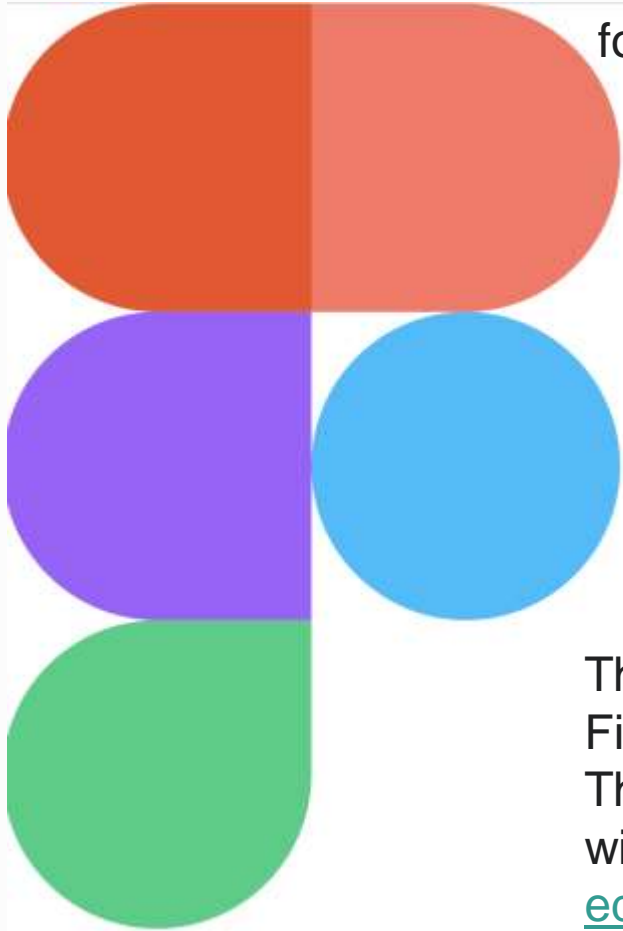
```
div {  
  animation: example 5s linear 2s infinite alternate;  
}
```

DESIGN TOOLS



FIGMA

Figma is a collaborative browser-based interface design tool, with additional offline features enabled by desktop applications for [macOS](#) and [Windows](#).



The Figma mobile app for [Android](#) and [iOS](#) allows viewing and interacting with Figma prototypes in real-time on mobile and tablet devices. The feature set of Figma focuses on [user interface](#) and [user experience](#) design, with an emphasis on real-time collaboration,^[1] utilising a variety of [vector graphics editor](#) and [prototyping](#) tools.

<https://www.figma.com/file/Xj5yL5qpckqMrk2xYiQbSD/UH13WFtYfb36n4iP?node-id=4%3A6>

CSS Variables

```
:root {  
  --main-bg-color: brown;  
}
```

```
element {  
  background-color: var(--main-bg-color)  
}
```

`var(--name, value)`

Value	Description
<i>name</i>	Required. The variable name (must start with two dashes)
<i>value</i>	Optional. The fallback value (used if the variable is not found)

Note: The variable name must begin with two dashes (--) and it is case sensitive!