

# Webdesign

Responsive Webdesign

<https://github.com/wemakeweb/webdesign-tut/>

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# Flexible Layouts

Css Einheiten

## Absolute Einheiten

px, (in), (cm)

## Relative Einheiten

em - Abhängig von der Fontsize des parent Element

rem - Abhängig von der Fontsize des <html> Element

% - Abhängig von den Dimensionen des parent

# Flexible Layouts

em

Abhängig von der Fontsize des parent  
Elements

- Achtung Stacking

```
<style>  
  body { font-size: 62.5%; }  
  h1 { font-size: 2.4em; } /* =24px */  
  p { font-size: 1.4em; } /* =14px */  
  li { font-size: 1.4em; } /* =14px? */  
</style>
```

# Flexible Layouts

rem

Abhängig von der Fontsize des <html>

Element

- kein Stacking

```
<style>
  body { font-size: 62.5%; }
  h1 { font-size: 2.4rem; } /* =24px */
  p { font-size: 1.4rem; } /* =14px */
  li { font-size: 1.4rem; } /* =14px */
</style>
```

# Flexible Layouts

%

Abhängig von den Dimensionen des parent

# Flexible Layouts

## Starres Layout

```
<div class="container">
  <section>...</section>
  <aside>...</aside>
</div>

<style>
  .container {
    width: 660px;
  }
  section {
    float: left;
    margin: 10px;
    width: 420px;
    height: 200px;
    background: lightGray;
  }
  aside {
    float: right;
    margin: 10px;
    width: 200px;
    height: 200px;
    background: lightGray;
  }
</style>
```

# Flexible Layouts

```
<div class="container">
  <section>...</section>
  <aside>...</aside>
</div>

<style>
  .container {
    max-width: 660px;
  }
  section {
    float: left;
    height: 200px;
    background: lightGray;
    margin: 1.515151%; /* 10px / 660px = .01515151 */
    width: 63.636363%; /* 420px / 660px = .63636363 */
  }
  aside {
    float: right;
    height: 200px;
    background: lightGray;
    margin: 1.515151%; /* 10px / 660px = .01515151 */
    width: 30.303030%; /* 200px / 660px = .30303030 */
  }
</style>
```



# Flexible Layouts

Nützliche Css Eigenschaften

```
.element{  
  
    max-width: 200px; /* maximale Breite */  
    min-width: 100px; /* minimale Breite */  
    width: 20%;  
  
    min-height: 150px; /* minimale Höhe */  
    max-height: 300px; /* maximale Höhe */  
}
```

# Media Queries

Einbinden

```
<!-- Seperatem CSS File -->  
<link href="styles.css" rel="stylesheet" media="all and (max-width: 1024px)">
```

```
<style>  
    /* media Rule */  
    @media all and (max-width: 1024px) {...}  
</style>
```

# Media Queries

Regeln

- Types

```
@media screen, print { ... }
```

- Dimensions

```
@media (min-device-width: 640px) { ... }
```

- Orientation / Aspect Ratio

```
@media screen and (device-aspect-ratio: 16/9) { ... }
```

```
@media (orientation:portrait) { ... }
```

# Media Queries

Verknüpfung

```
@media all and (min-width: 800px) and (max-width: 1024px) {...}
```

```
@media only screen and (orientation: portrait) {...}
```

# Media Queries

## Dimensions

device-width	Breite des Geräte Displays min-device-width max-device-width
device-height	Höhe des Geräte Displays min-device-height max-device-height
width	Breite des Browsers min-width max-width
height	Höhe des Browsers min-height max-height

# Media Queries

## Orientation



```
@media only screen and (orientation : portrait) {  
}
```



```
@media only screen and (orientation : landscape) {  
}
```

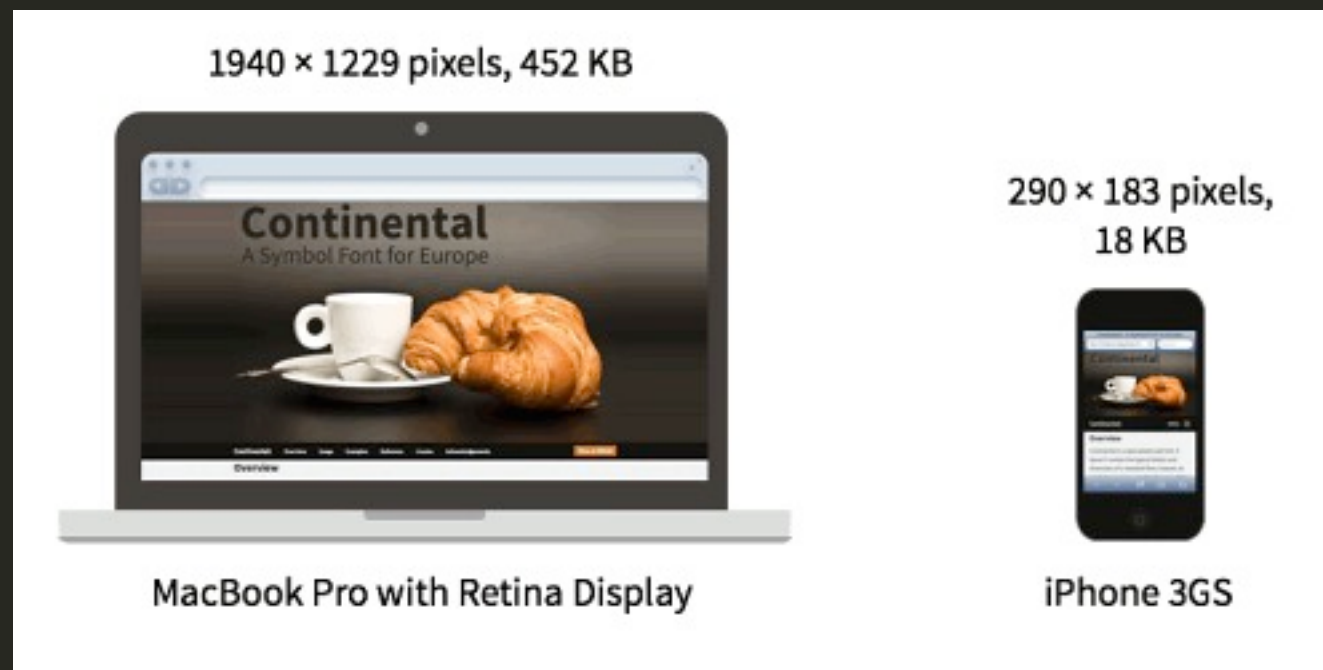
# Media Queries

Targeting

`Lesson02/Material/common-devices.css`

# Responsive Images

Ladezeit sparen





# Responsive Images

```
<!DOCTYPE html>
<html lang="en">
  <head>
    <meta charset="utf-8">
    <title></title>
    <style>
      img.smallscreen { display: none; }
      @media only screen and (max-width: 320px) {
        img {
          display: none;
        }
        img.smallscreen {
          display: inline;
        }
      }
    </style>
  </head>
  <body>
    
    
  </body>
</html>
```

# Responsive Images

```
<!DOCTYPE html>
<html lang="en">
  <head>
    <meta charset="utf-8">
    <title></title>
    <style>
      #image {
        background-image: url(largeimage.jpg);
      }
      @media only screen and (max-width: 320px) {
        #image {
          background-image: url(smallimage.jpg);
        }
      }
    </style>
  </head>
  <body>
    <div id="image"></div>
  </body>
</html>
```