Responsive Web Design is easy



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Rule #1 - viewport

<head>

<meta name="viewport" content="width=device-width, initial-scale=1.0">

</head>

Without "viewport" on mobile

With "viewport" on mobile





Lorem ipsum dolor sit amet, consectetuer adipiscing elit, sed diam nonummy nibh euismod tincidunt ut laoreet dolore magna aliquam erat volutpat. Ut wisi enim ad minim veniam, quis nostrud exerci tation ullamcorper suscipit lobortis nisl ut aliquip ex ea commodo consequat. Duis autem vel eum iriure dolor in hendrerit in vulputate velit esse molestie consequat, vel illum dolore eu feugiat nulla facilisis at vero eros et accumsan et iusto odio dignissim qui blandit praesent luptatum zzril delenit augue duis dolore te feugait nulla facilisi. Nam liber tempor cum soluta nobis eleifend ontion conque nibil imperdiet domine

Rule #2 - Create Mobile First

Desktop first

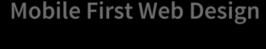
```
/* Example */
/* from Opx until 720px */
@media (max-width: 720px) {
   body {
    background-color: green;
   }
}
```

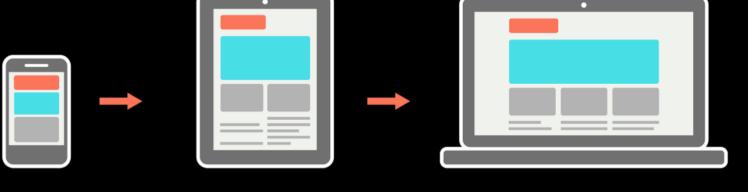


Responsive Web Design

Mobile first

```
/* Example */
/* from 420px until next @media */
@media (min-width: 420px) {
   body {
   background-color: green;
}
```



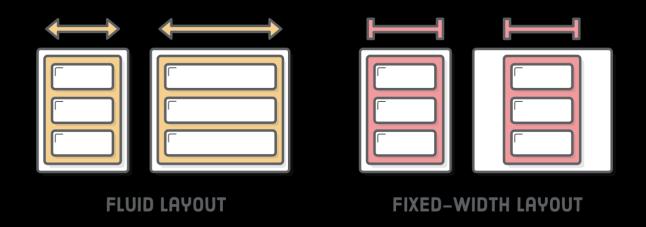


Rule #3 - use @media queries

```
/* Mobile styles */
                                          /* Tablet styles */
                                          @media (min-width: 420px) {
body {
   background-color: red;
                                            body {
                                                background-color: green;
                                                  426px × 669px
    411px × 669px
                                                                     Elements
                                                                                Console
                       Elements
                                  Console
                                                            <head>...</head>
              ▶ <head>...</head>
                                                           ...▼<body> == $0
            ... ▼ <body> == $0
                                                                <!-- Code injected by live
                 <!-- Code injected by live
                                                           html body
             html body
                                                                  Computed
                                                                            Layout Eve
                                                            Styles
                   Computed
                              Layout Eve
             Styles
                                                           Filter
             Filter
                                                           element.style {
             element.style {
                                                           @media (min-width: 420px)
             body {
                                                           body {
               background-color:  red;
                                                             background-color: green;
             body {
                                                           body {
               display: block;
                                                             background color: red:
               margin: ▶ 8px;
                                                           body {
                                                             display: block;
                                                             margin: ▶ 8px;
```

```
/* Desktop styles */
@media (min-width: 560px) {
  body {
     background-color: pink;
       572px × 669px
                          Elements
                                     Console
                 ▶ <head>...</head>
               ... ▼ <body> == $0
                    <!-- Code injected by live
                html body
                       Computed Layout Eve
                 Styles
                Filter
                element.style {
                @media (min-width: 560px)
                body {
                  background-color: pink;
                @media (min-width: 420px)
                body {
                  background color: green;
                body {
                  background color:
```

Rule #4 - Responsive layout



FLUID LAYOUT

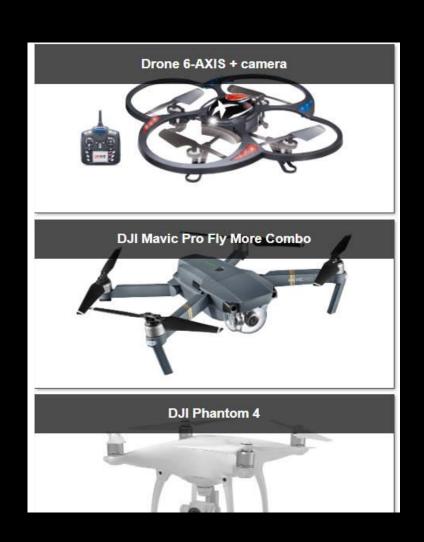
```
.container {
  width: 100%;
}
```

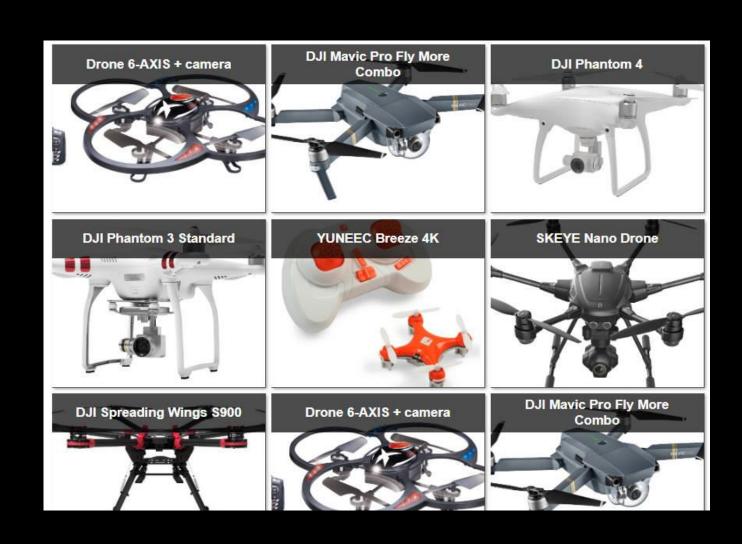
FIXED-WIDTH LAYOUT

```
/* Mobile styles */
.container {
    max-width: 100%;
}

max-width: 576px) {
    .container {
        max-width: 540px;
    }
}
```

Rule #5 - CSS Flexbox Layout

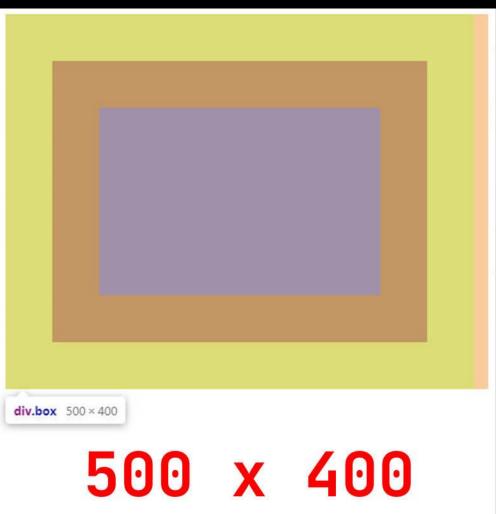




```
<div class="container">
25
     class="cards__item">...
32
     33 >
       ...
39
     ...
40 >
     47
     </div>
48
```

```
/* Mobile styles */
                            /* Tablet styles */
                                                           /* Desktop styles */
                                                           @media (min-width: 768px) {
                            @media (min-width: 576px) {
.container {
 max-width: 100%;
                              .container {
                                                              .container {
                                max-width: 540px;
                                                               max-width: 720px;
.cards {
 display: flex;
                              .cards {
                                                              .cards__item {
 flex-direction: column;
                                flex-direction: row;
                                                               width: 33.33%;
                                flex-wrap: wrap;
.cards__item {
 width: 100%;
                               .cards__item {
                                width: 50%;
```

Rule #5 - box-sizing: border-box



```
Elements
                      Console
                                 Sources
                                           Network
 head>...
 ▼ <body>
    <div class="box"></div> == $0
     <!-- Code injected by live-server -->
   <script type="text/javascript">...</script>
html body div.box
                   Layout Event Listeners
                                            DOM Breakpoints
Styles
        Computed
                                                             >>
                :hov .cls +
Filter
element.style {
                                          margin
                                            border
                                                      50
.box {
            style.css? ...766576781:1
                                               padding 50
  width: 300px;
  height: 200px;
                                           50
                                                   300 \times 200
                                                              50 50
  padding: ▶ 50px;
                                                      50
  border: ▶ 50px solid
     yellowgreen;
                                                      50
  background-color: tomato;
  box-sizing: content-box;
```

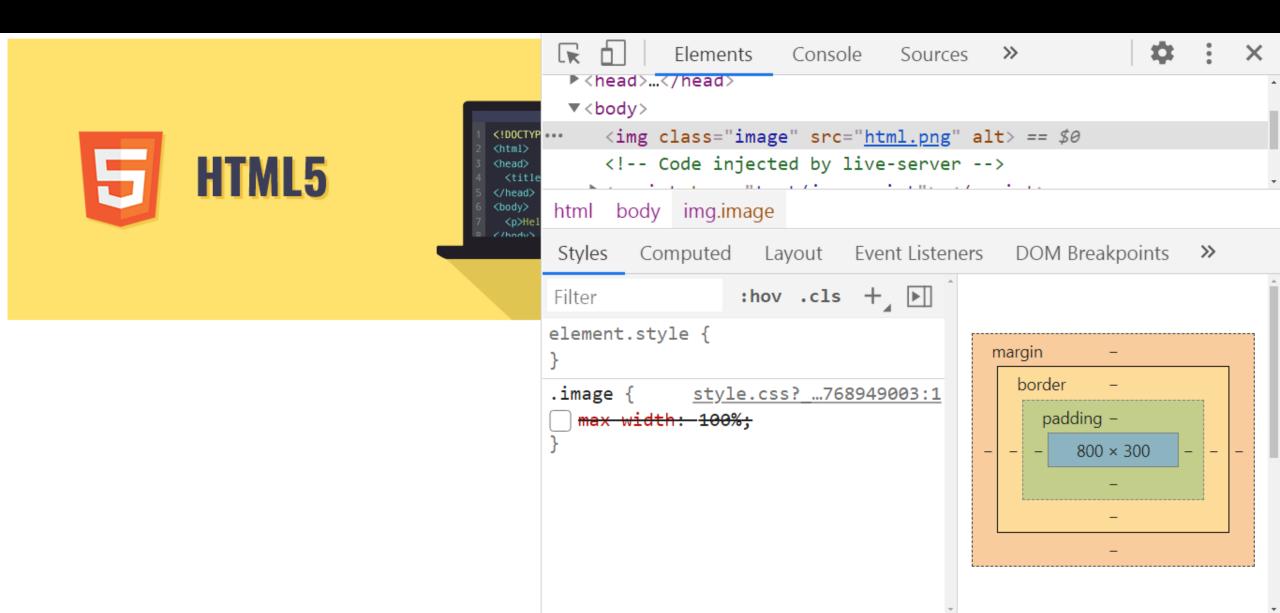
```
box-sizing: border-box;
```



OK

```
Elements
                                           Network
                       Console
                                 Sources
 <head>...</head>
 ▼ <body>
     <div class="box"></div> == $0
     <!-- Code injected by live-server -->
   <script type="text/javascript">...</script>
html body div.box
                   Layout
                                            DOM Breakpoints
Styles
        Computed
                            Event Listeners
                 :hov .cls + ▶
Filter
element.style {
                                          margin
                                            border
                                                      50
.box {
         style.css? ...766686774:1
                                                padding 50
  width: 300px;
  height: 200px;
                                                     100 \times 0
                                                              50
                                            50
                                                                 50
  padding: ▶ 50px;
                                                      50
  border: ▶ 50px solid
      yellowgreen;
                                                      50
  background-color: tomato;
  box-sizing: border-box;
```

Rule #5 - responsive images



```
img {
  max-width: 100%;
}
```





```
Elements
                    Console
                             Sources >>
 <head>...
 ▼ <body>
    <img class="image" src="html.png" alt> == $0
    <!-- Code injected by live-server -->
html body img.image
       Computed Layout Event Listeners
                                         DOM Breakpoints
Styles
               :hov .cls + ▶
Filter
element.style {
                                       margin
                                         border
.image { style.css? ...768949003:1
                                            padding -
  max-width: 100%;
                                             561 × 210.375
```