*ICT-Start – Session 01*

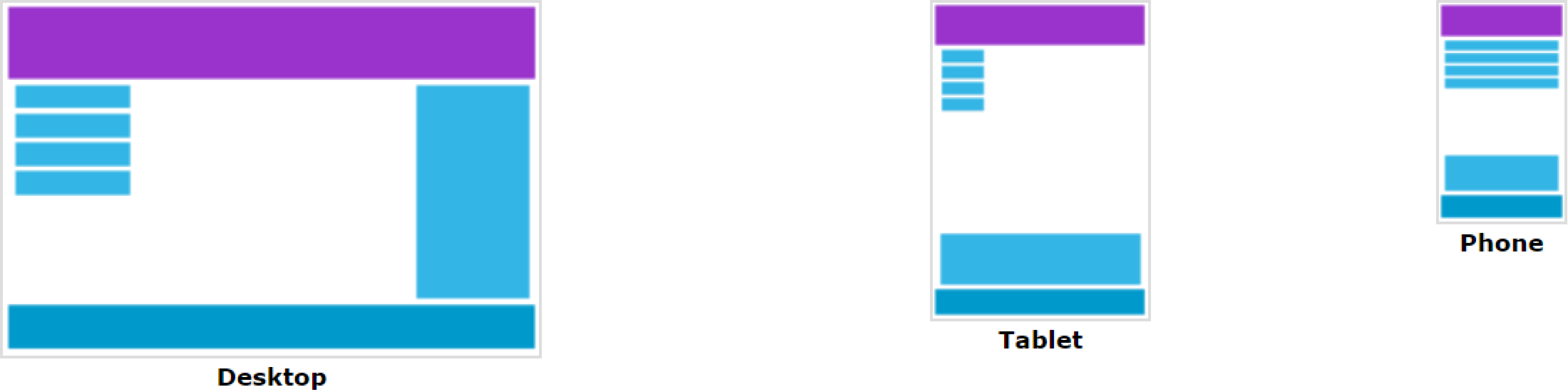
# Module 2: Creating static web pages using HTML5 and CSS3

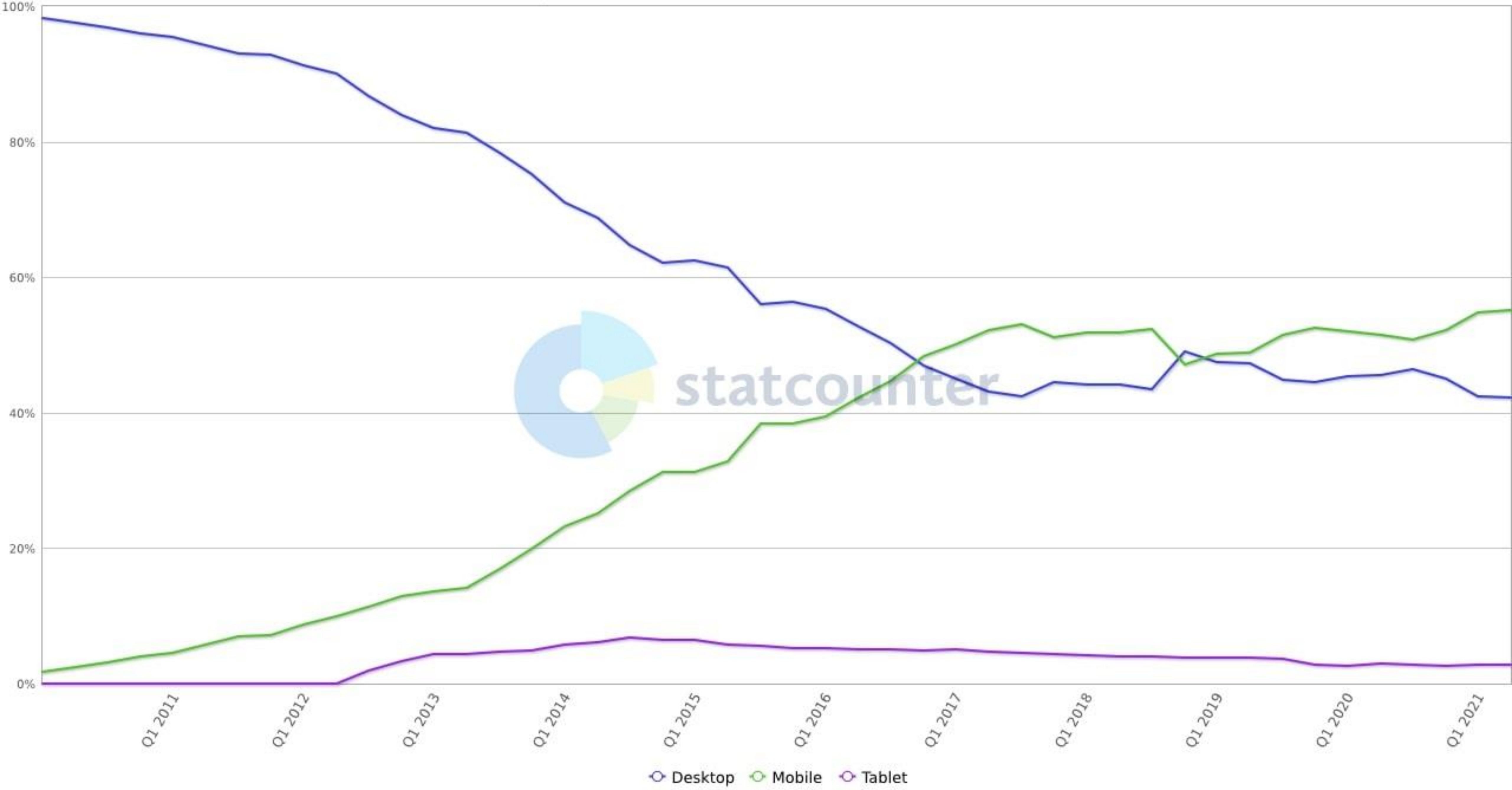
**M) Responsive Layout**

**December 2022**

# Responsive design

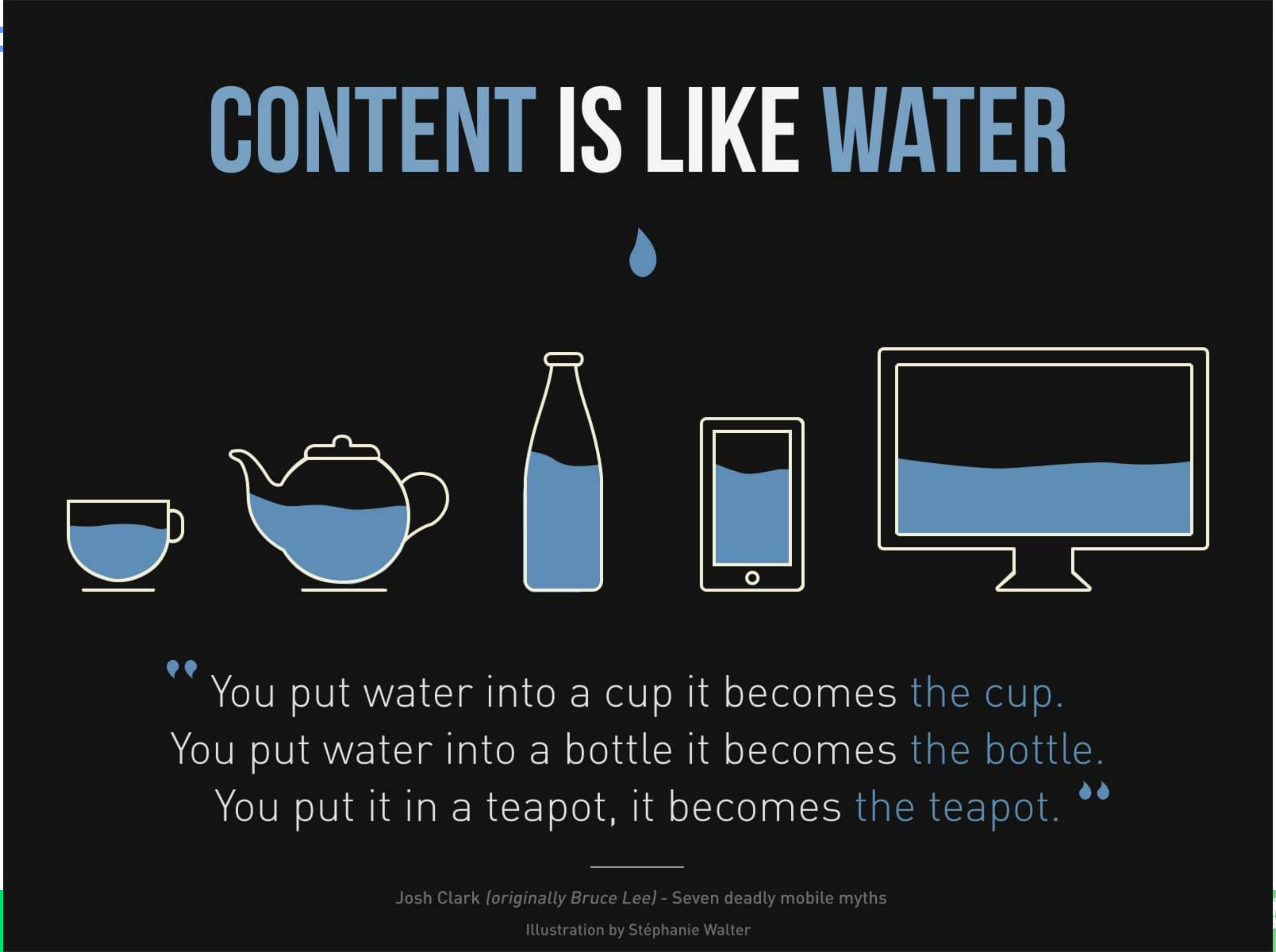
- Automatically resize, hide, shrink, or enlarge, a website, to make it look good on all devices (desktops, tablets, and phones)
- Why does a responsive design matter?





StatCounter Global Stats

Desktop vs Mobile vs Tablet Market Share Worldwide from Q1 2010 - Q2 2021



# CONTENT IS LIKE WATER

> “You put water into a cup it becomes the cup.
> You put water into a bottle it becomes the bottle.
> You put it in a teapot, it becomes the teapot.”

Josh Clark *(originally Bruce Lee)* - Seven deadly mobile myths

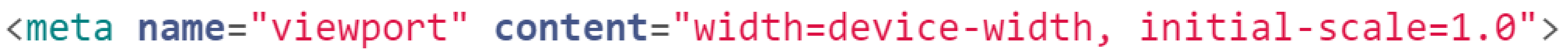
Illustration by Stéphanie Walter

# Responsive design

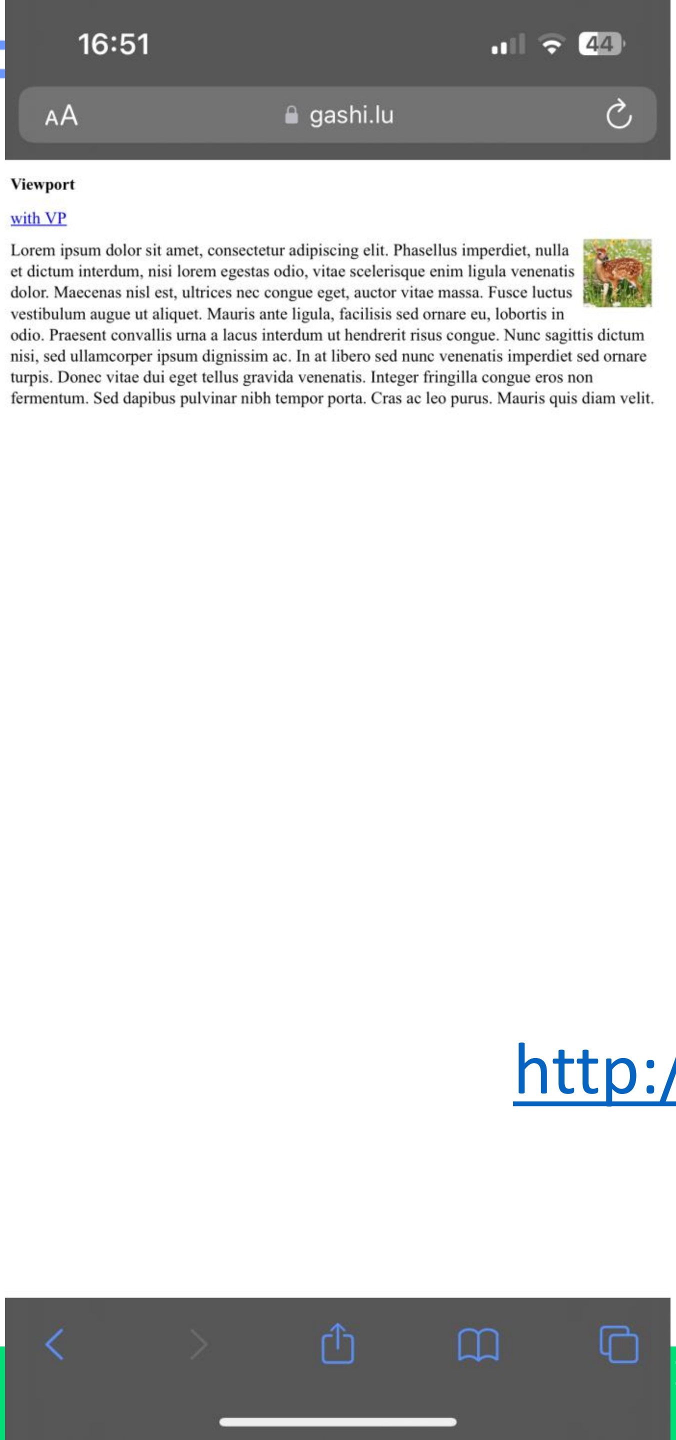
- Many ways to achieve
- Main ideas and best practices will be presented

# Viewport

- Part of the document you're currently viewing
- By setting the viewport to the device width, the browser can adjust and scale it's content
- Special `meta` tag:



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



**Viewport**

with VP

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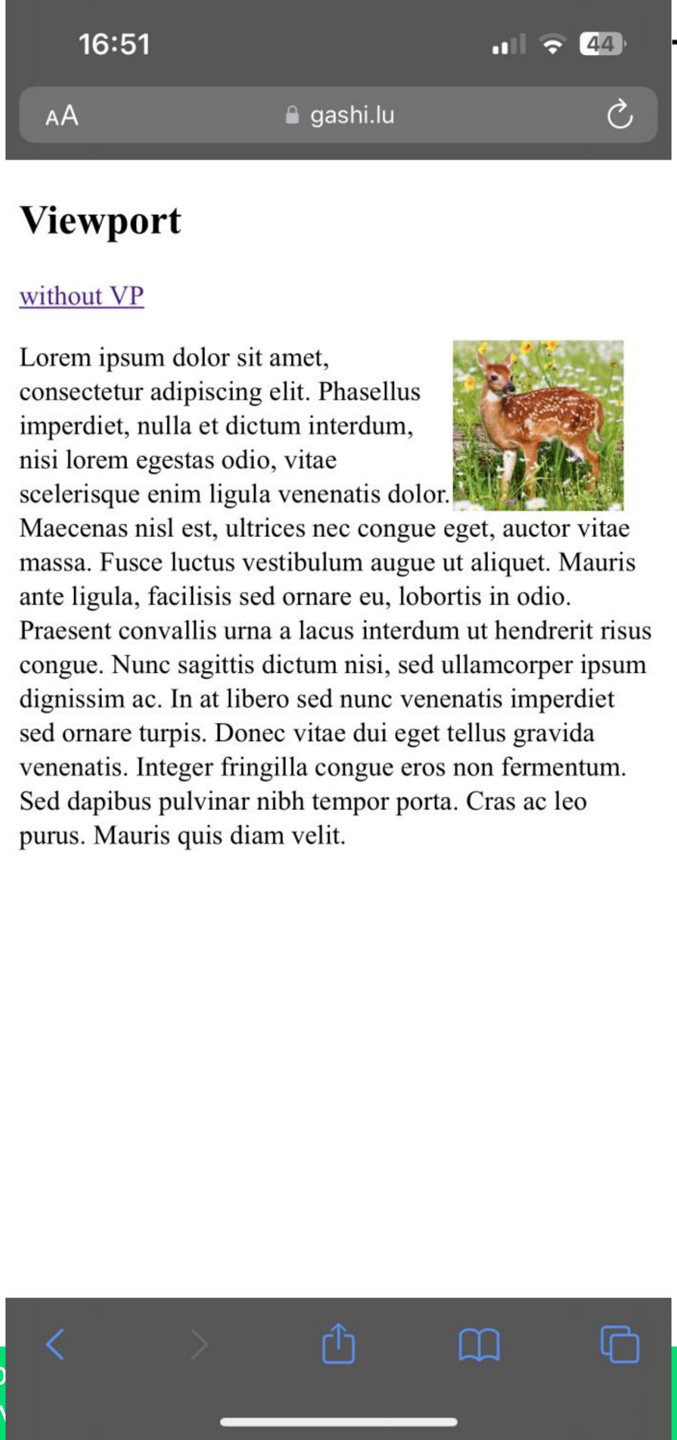

**Viewport**

without VP

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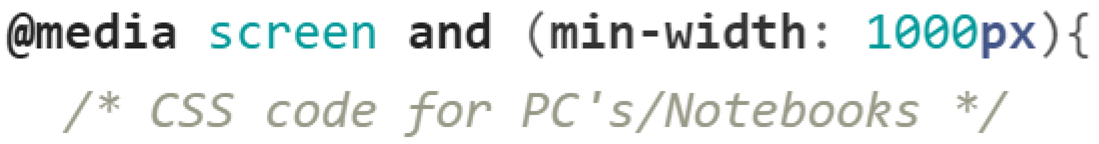
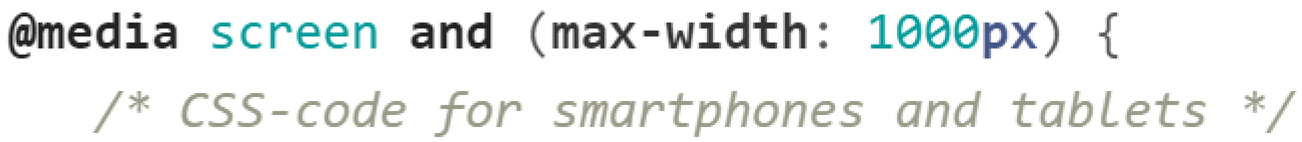
http://edulink.lu/ixtr

# CSS Media queries

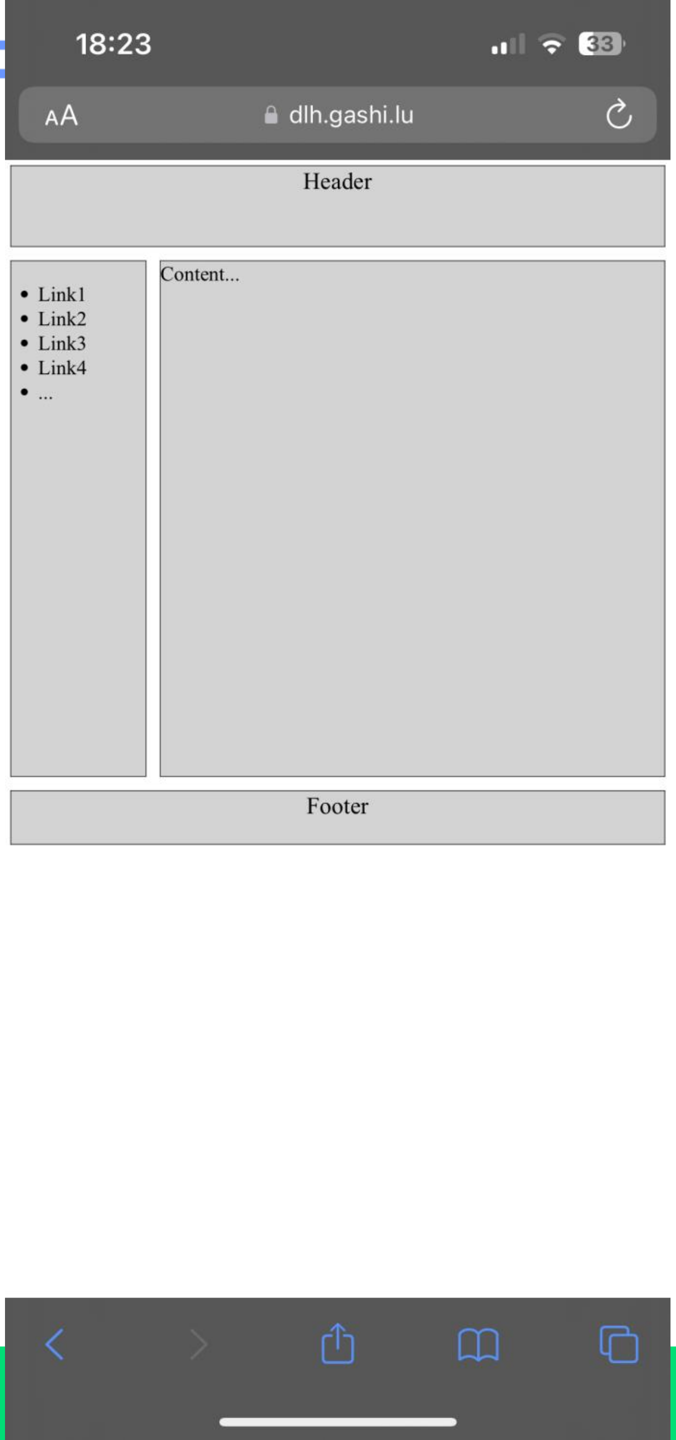
- Simple filters to change styles based on the type or features of devices (e.g. width, height, orientation, etc)



```
@media screen and (min-width: 1000px){
  /* CSS code for PC's/Notebooks */
```



```
@media screen and (max-width: 1000px) {
   /* CSS-code for smartphones and tablets */
```



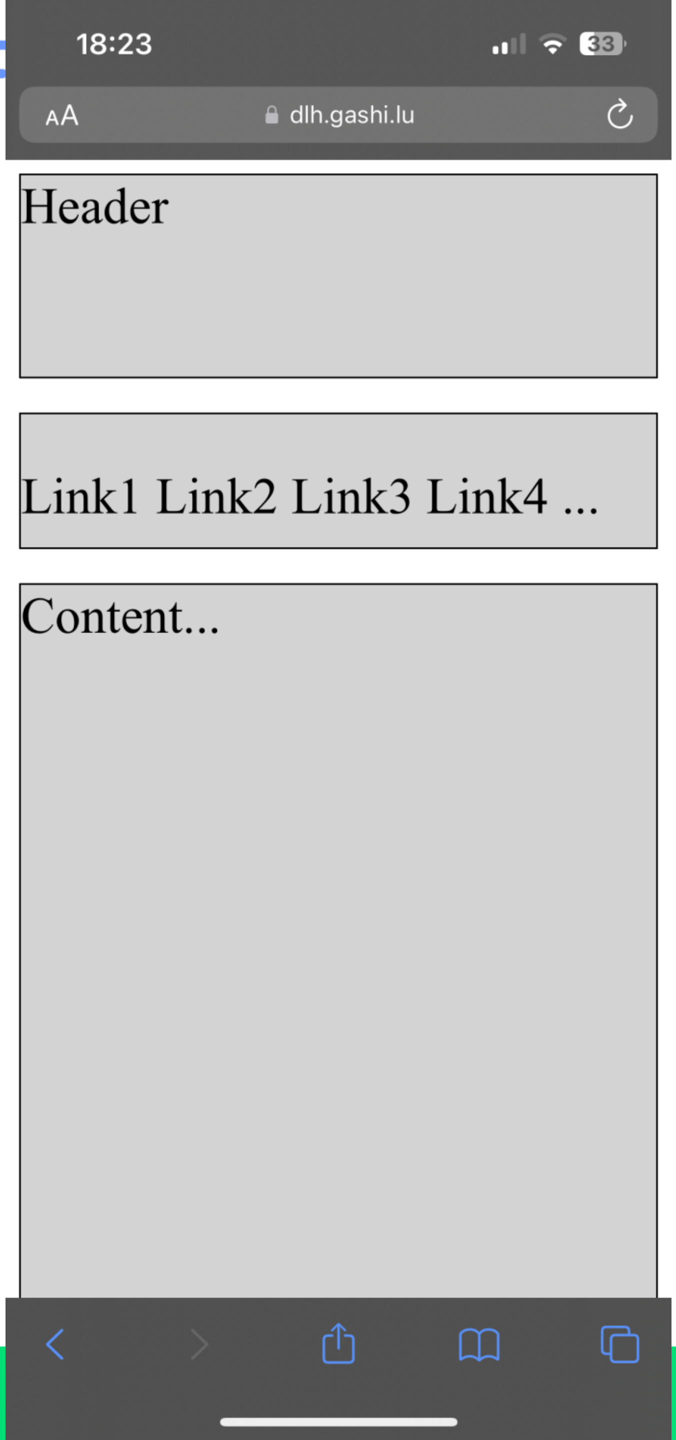
Header

- Link1
- Link2
- Link3
- Link4
- ...

Content...

Footer

```
<style>
.grid-item {
  background-color: lightgray;
  border: 1px solid black;
  font-size: 30px;
}
  @media screen and (min-width: 1000px){
    /* CSS code for PC's/Notebooks */
    .grid-container{
      display: grid;
      grid-template-columns: 200px auto  ;
      grid-template-rows: 120px  auto 80px ;
      grid-column-gap: 20px;
      grid-row-gap: 20px; /* or grid-gap for column+row */
      text-align: left;
      min-height: 1000px;
    }
    .grid-header, .grid-footer{
      grid-column: 1 / span 2;
      text-align: center;
    }
  }
  @media screen and (max-width: 1000px) {
     /* CSS-code for smartphones and tablets */
```



Header

Link1 Link2 Link3 Link4 ...

Content...

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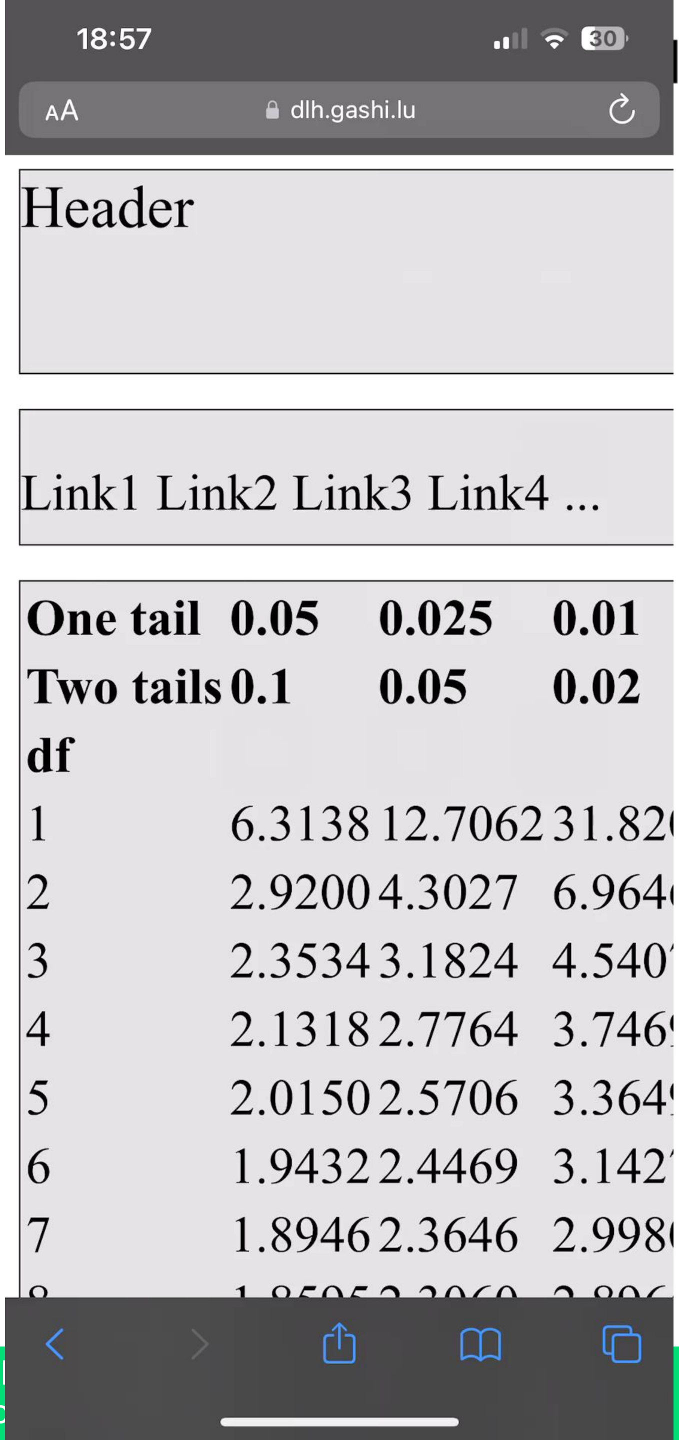
  font-size: 30px;
}
  @media screen and (min-width: 1000px){⋯
  @media screen and (max-width: 1000px) {
     /* CSS-code for smartphones and tablets */
      .grid-container{
        display: grid;
        grid-template-columns: auto;
        grid-template-rows: 120px  80px auto 80px ;
        grid-column-gap: 20px;
        grid-row-gap: 20px; /* or grid-gap for column+row */
        text-align: left;
        min-height: 1000px;
      }
      .grid-left-menu ul{
        padding-inline-start:0;
        float:left;
      }
      .grid-left-menu ul li{
        display: inline-block;
      }
      .grid-left-menu ul li a{
        text-decoration: none;
        color: inherit;
      }
  }
```

# Working with tables



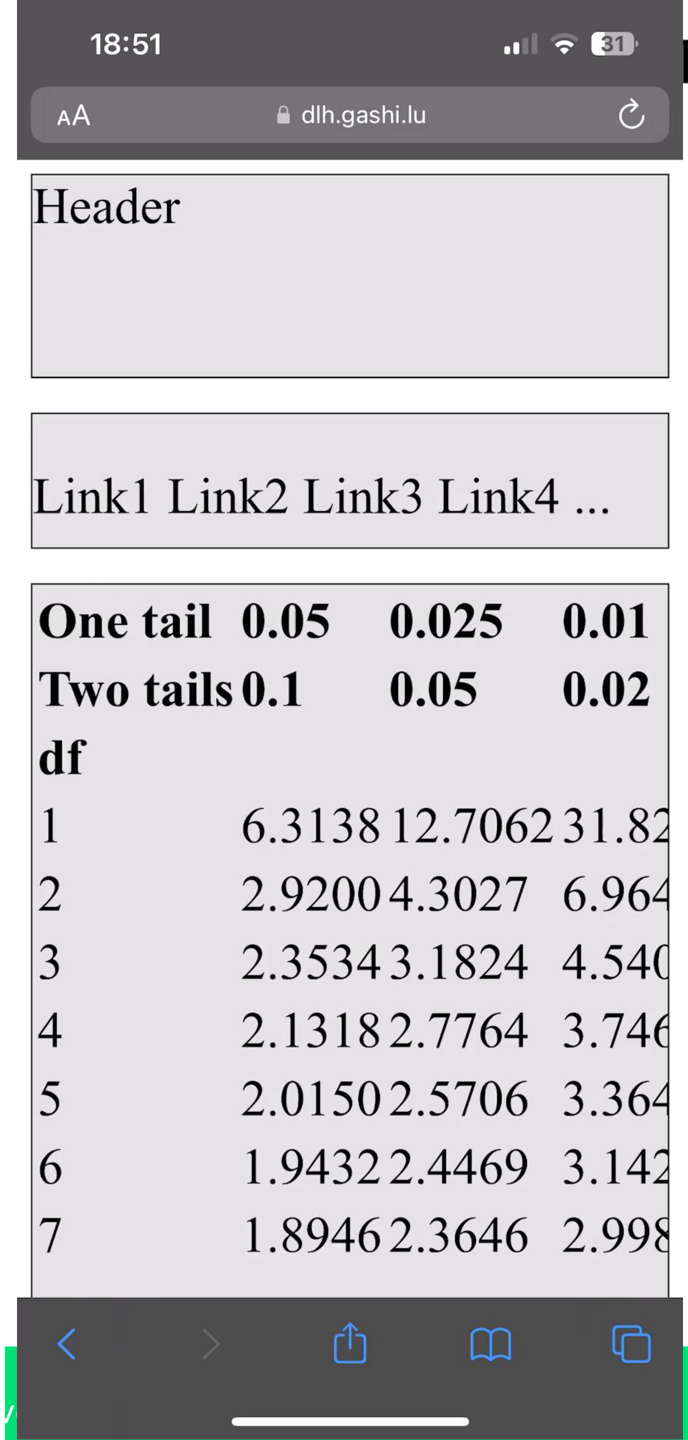
Header

Link1 Link2 Link3 Link4 ...

| One tail | 0.05 | 0.025 | 0.01 |
|---|---|---|---|
| Two tails | 0.1 | 0.05 | 0.02 |
| df | | | |
| 1 | 6.3138 | 12.7062 | 31.82 |
| 2 | 2.9200 | 4.3027 | 6.964 |
| 3 | 2.3534 | 3.1824 | 4.540 |
| 4 | 2.1318 | 2.7764 | 3.746 |
| 5 | 2.0150 | 2.5706 | 3.364 |
| 6 | 1.9432 | 2.4469 | 3.142 |
| 7 | 1.8946 | 2.3646 | 2.998 |

# Working with tables

```
  main{
    overflow-x: scroll;
  }
  </style>
</head>
<body>
  <div class="grid-container">
    <header class="grid-item grid-header">Header</header>
    <aside class="grid-item grid-left-menu">…
    <main class="grid-item grid-content">
      <table>
    <tr>
    <th>One tail</th>
    <th>0.05</th>
    <th>0.025</th>
```



Header

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| 7 | 1.8946 | 2.3646 | 2.998 |

# General tips

- Set the viewport
- Work as much as possible with percentages for widths
- Use CSS Grid for the layout
- Use CSS Media Queries to handle different screen sizes
- Define a scroll for horizontal overflows

# Exercices