

# 27. Responsive Website

## What is Responsive Web Design?

Responsive web design makes your web page look good on all devices.

Responsive web design uses only HTML and CSS.

Responsive web design is not a program or a JavaScript.



# 27. Responsive Website

1. Adapts layout for different screen sizes
2. Flexible layouts
3. Optimizes images and assets
4. Enhances user experience on mobile and desktop

## Responsive

iPhone SE

iPhone XR

✓ iPhone 12 Pro

Pixel 5

Samsung Galaxy S8+

Samsung Galaxy S20 Ultra

iPad Air

iPad Mini

Surface Pro 7

Surface Duo

Galaxy Fold

Samsung Galaxy A51/71

Nest Hub

Nest Hub Max

Facebook for Android v407 on Pixel 6

Edit...

# 28. Relative Units



## CSS Units Cheat Sheet

**px**

Absolute pixel value

**%**

A percentage of the parent element.  
100% is the width of the parent element

**em**

Relative to the font size of the element

**vh**

Relative to 1% of the viewport's height

**rem**

Relative to the font size of  
the root element

**vw**

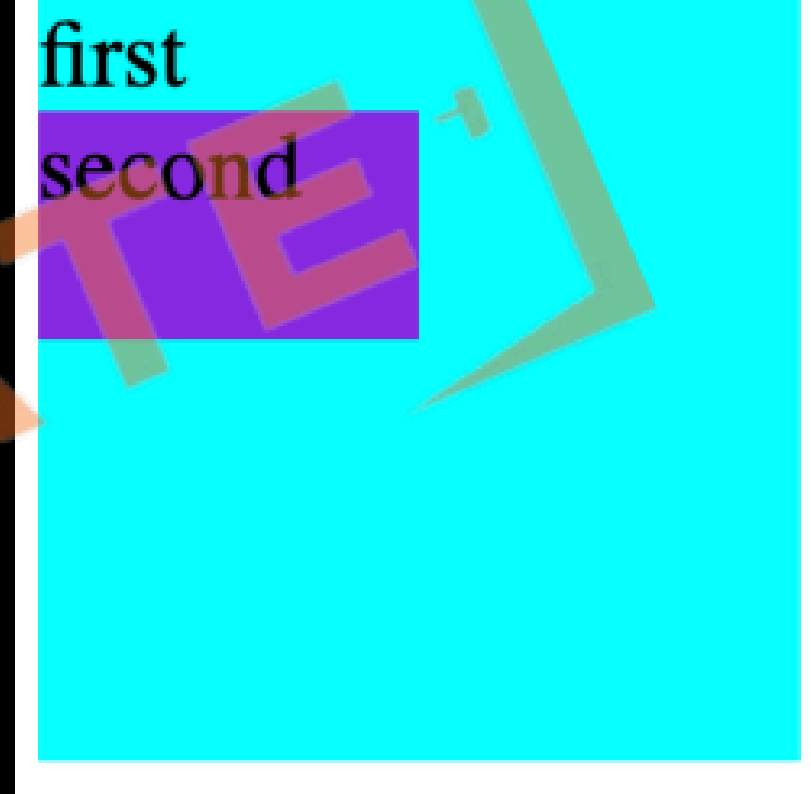
Relative to 1% of the viewport's width

## 28. Relative Units (Percentage)

```
#first {  
  height: 200px;  
  width: 200px;  
  background-color: ■ aqua;  
  font-size: 25px;  
}
```

```
#second {  
  background-color: ■ blueviolet;  
  width: 50%;  
  height: 30%;  
}
```

```
<body>  
  <div id="first">  
    first  
    <div id="second">  
      second  
    </div>  
  </div>  
</body>
```



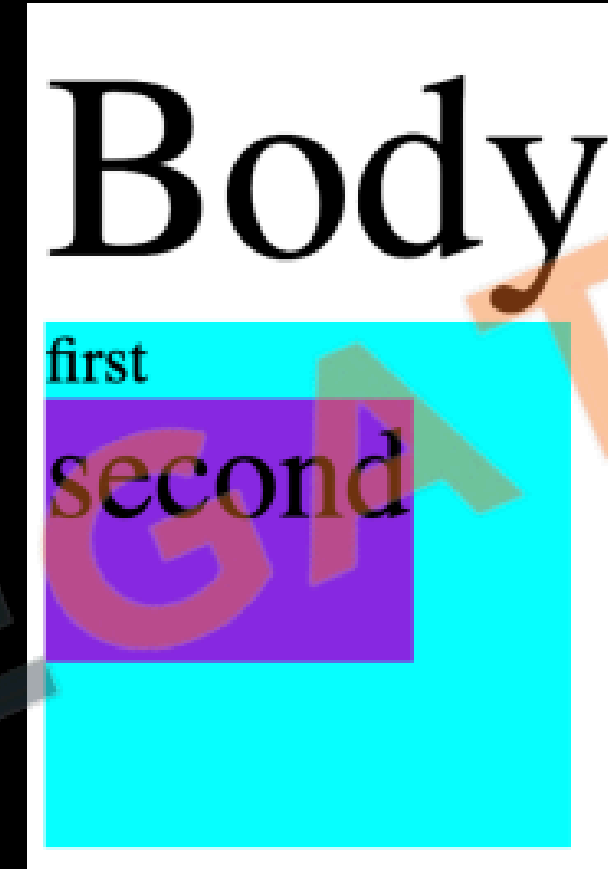
- **Relative Sizing:** Facilitates dynamic sizing **relative to parents**.
- **Adaptability:** Ensures **responsiveness** across various screens.
- **Dimensions:** Quickly set width and height as a percentage.

# 28. Relative Units (EM)

```
body {  
  font-size: 100px;  
}  
  
#first {  
  height: 200px;  
  width: 200px;  
  background-color: aqua;  
  font-size: 25px;  
}
```

```
#second {  
  background-color: blueviolet;  
  width: 70%;  
  height: 50%;  
  font-size: 2em;  
}
```

```
<body>  
  Body  
  <div id="first">  
    first  
    <div id="second">  
      second  
    </div>  
  </div>  
</body>
```



- **Relative Unit:** Sized relative to the parent element's font size.
- **Scalability:** Facilitates easy scaling of elements for responsive design.
- **Font Sizing:** Commonly used for setting font sizes adaptively.

## 28. Relative Units (REM)

```
* {  
  font-size: 50px;  
}  
  
#first {  
  height: 200px;  
  width: 200px;  
  background-color: aqua;  
  font-size: 10px;  
}
```

```
#second {  
  background-color: blueviolet;  
  width: 70%;  
  height: 50%;  
  font-size: 2rem;  
}
```

```
<body>  
  Body  
  <div id="first">  
    first  
    <div id="second">  
      second  
    </div>  
  </div>  
</body>
```

Body

first

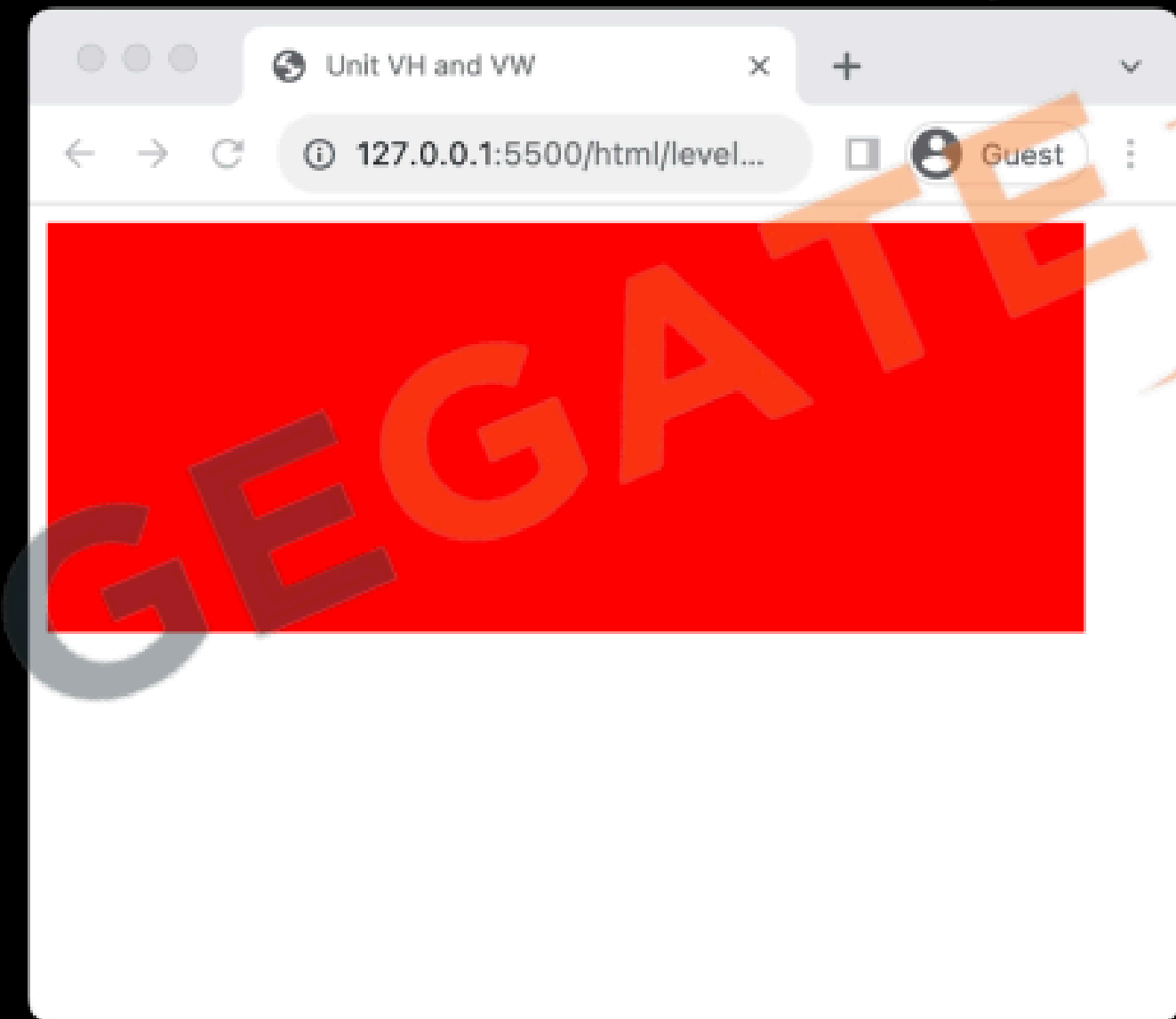
second



- **Relative Sizing:** Facilitates dynamic sizing relative to root element.
- **Adaptability:** Ensures responsiveness across various screens.
- **Dimensions:** Quickly set width and height as a percentage.

# 28. Relative Units (vw/vh)

```
<head>
  <title>Unit VH and VW</title>
  <style>
    #first {
      height: 50vh;
      width: 90vw;
      background-color: red;
    }
  </style>
</head>
<body>
  <div id="first"></div>
</body>
```



- **Viewport Relative Units:** Units based on viewport's width (vw) or height (vh) for responsive design.
- **Responsive Layouts:** Essential for creating adaptive layouts; e.g., height: 100vh for full-screen sections.
- **Element Sizing:** Useful for defining heights and widths that scale with the viewport.