

Lesson:

More on CSS function



List of Concepts Involved:

- Introduction to CSS function
- attr()
- calc()
- max()
- min()
- var()

Introduction to CSS function

CSS functions are statements that invoke special data processing or calculations to return a CSS value for a CSS property. CSS value function represents more complex data types and they make take some input arguments to calculate the return value.

attr()

attr() function is a function that is used to retrieve the value of an attribute from an HTML element and use it as a property value within the CSS styling.

Syntax of **attr()** function

```
Unset
property: attr(attribute_name)
```

Example of attr() function

index.html

```
Unset
<body>
  <p blood-group="A+" class="container">
    My Blood Group is
  </p>
</body>
```

style.css

```
Unset
p::after {
  content: attr(blood-group);
  color: red;
}

/* This will result, any <p> element with a "blood-group" attribute to
display its value in red text after the paragraph's original content.*/
```

Browser output

My Blood Group is A+

calc()

calc() CSS function is a function that You can utilize to execute calculations while defining values for CSS properties.

Syntax of calc() function

```
Unset
property: calc(expression)
```

The expression can be any simple expression combining the following operators, using standard operator precedence rules:

- + Addition.
- - Subtraction.
- * Multiplication
- / Division

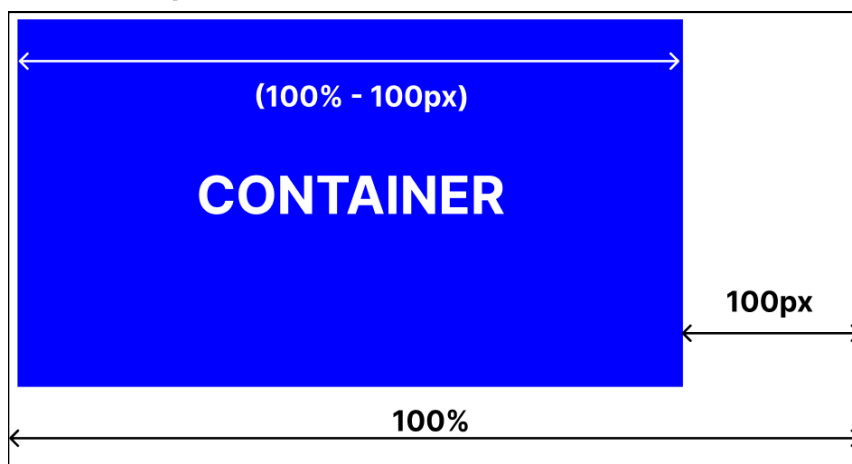
Example of calc() function in CSS

```
Unset
<style>
  #container {
    width: calc(100% - 100px);
    height: 50vh;
    background-color: blue;
  }
</style>
<body>
  <div id="container"></div>
</body>
```

In the above example, we have set the width of the container by calculating using the calc() function as follows,
width = calc(100% - 100px)

It means, the final width will be the total width available - 100px

Browser output:-



max()

The max() function in CSS is a function that can be used to set the largest value from a list of comma-separated expressions as the value of a CSS property value.

Syntax of max() function in CSS

```
Unset
properties: max(value1, value2)
```

Example max() function in CSS

index.html

```
Unset
<body>
  <section class="container">
    <div>box</div>
  </section>
</body>
```

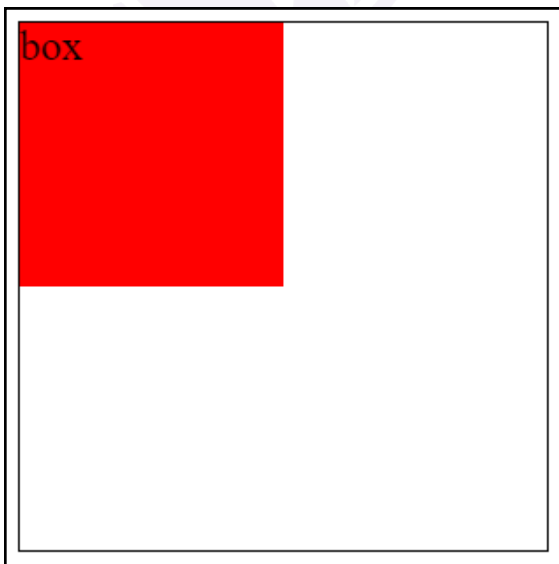
Example max() function in CSS

index.html

```
Unset
.container {
  width: 200px;
  height: 200px;
  border: 1px solid;
}
div {
  background: red;
  height: 100px;
  width: max(50%, 100px);
}

/* In this example, the width of the div element will be always of maximum
with 50% or 100px of width with respect to the parent container */
```

Browser output -



min()

The min() function in CSS is a function that can be used to set the smallest value from a list of comma-separated expressions as the value of a CSS property value.

Syntax of min() function in CSS

```
Unset
properties: min(value1, value2)
```

Example of min() CSS function

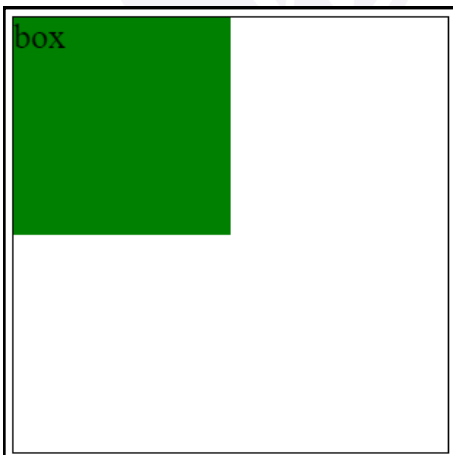
index.html

```
Unset
<body>
  <section class="container">
    <div>box</div>
  </section>
</body>
```

Style.css

```
Unset
.container {
  width: 200px;
  height: 200px;
  border: 1px solid;
}
div {
  background: green;
  height: 100px;
  width:min(50%, 100px);
}
/* In this example, the width of the div element will be always of minimum
with 50% or 100px of width with respect to the parent container */
```

Browser output -



Note - both the **max()** and **min()** function in CSS behaviour can be understood more by resizing the browser output screen

var()

The var() function in CSS is a function that is used to define and use custom CSS variables, also known as CSS custom properties, CSS variables allow us to store and reuse values throughout the stylesheet, making it easier to maintain and update styles throughout the project.

Syntax of var() function in CSS

```
Unset
// firstly var CSS properties value declaration in the root
i.e
:root {
  --variable-name: CSS properties;
}
// use the custom CSS properties with the var() function
i.e
selector {
  CSS properties: var(--variable-name)
}
```

Example of var() function in CSS

index.html

```
Unset
<div class="container">
  <h1>Custom properties Demo</h1>
</div>
```

style.css

```
Unset
:root {
  --red: #b00;
  --blue: #4679bd;
  --grey: #ddd;
}
.container {
  color: var(--red);
  background: var(--grey);
  border: 1px solid var(--red);
}
```

Browser output -

Custom properties Demo