

Lesson:

Custom Properties



Topics

- Understanding CSS Custom Properties
- Explaining CSS Custom Properties with Example

Understanding CSS Custom Properties

CSS custom properties which are sometimes referred to as CSS variables or cascading variables are entities defined by CSS authors that contain specific values to be reused throughout a document.

They are set using custom property notation example

--**main-color:black** and are accessed using the **var()** function i.e. color: var(--main-color);

Complex websites have very large amounts of CSS, often with a lot of repeated values.

For example, the same color might be used in hundreds of different places, requiring global search and replacement if that color needs to change. Custom properties allow a value to be stored in one place and then referenced in multiple other places. An additional benefit is semantic identifiers.

For example, --**main-text-color** is easier to understand than **#00ff00**

Note - When naming CSS variables, it contains only letters and dashes just like other CSS properties. Examples are like line-height, -moz-box-sizing. But it should start with double dashes (--)

These are invalid variable names

```
--123color: blue;
--#color: red;
--bg_color: yellow;
--$width: 100px
```

These are valid variable names -

```
--color: red;
--bg-color: yellow;
--width: 100px
```

Explaining CSS Custom Properties with Example

CSS custom properties example can be of Variable color, variable Dimension and much more, which can be achieved with the var() CSS function discussed in the previous module.

Variable Color

index.html

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

style.css

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

Browser output -



Variable Dimensions

index.html

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

style.css

```
:root {
  --w200: 300px;
  --m10: 40px;
  --red: #b00;
}

.container {
  border: 1px solid var(--red);
  width: var(--w200);
  margin: var(--m10);
}
```

Browser output -



Example of Variable Cascading

CSS variables cascade in much the same way as other properties, and can be restated safely. Variables can be defined multiple times and only the definition with the highest specificity will apply to the element selected.

index.html

```
<body>
  <a class="button" href="#"> Button Green</a>
  <a class="button btn_red" href="#"> Button Red</a>
  <a class="button" href="#"> Button Hover On</a>
</body>
```

style.css

```
.button {
  --color: green;
  padding: 0.5rem;
  border: 1px solid var(--color);
  color: var(--color);
}
.button:hover {
  --color: blue;
}
.btn_red {
  --color: red;
}
```

Browser output -



The above example demonstrates how CSS variables can be used to create dynamic and cascading styles. The variables allow us to change the appearance of elements in response to user interactions or specific assignments.