

TECHNOLOGY



Caltech | **Center for Technology &
Management Education**

Full Stack Java Developer

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CSS

Using Inheritance



Learning Objectives

By the end of this lesson, you will be able to:

- 👁 Define inheritance and its types
- 👁 Understand the advantages of using inheritance in CSS
- 👁 Learn to use the specificity to determine CSS property values
- 👁 Describe inline styles and bootstrap in CSS
- 👁 List the advantages of using Bootstrap in CSS



A Day in the Life of a Full Stack Developer

You are hired as a web developer in an organization and have been assigned an ongoing website development project. The code written to develop the website is quite complicated and could have been made very easily. You have been asked to enhance the code for better website performance and developer experience.

However, when you analyze the code, you see there is a lot of duplicate code, which could have been avoided by inheriting the same code at multiple places and with the help of bootstrap.

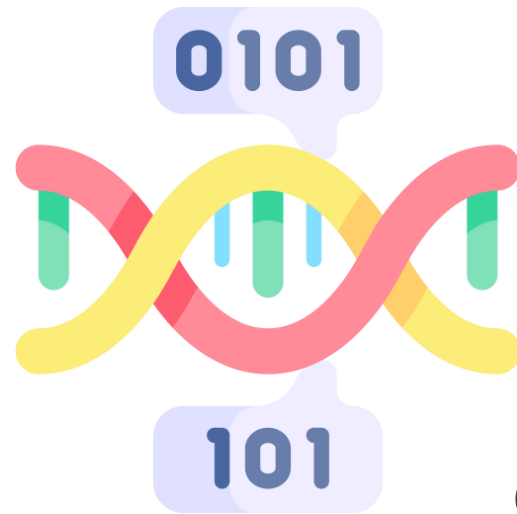
To do so, understand the concept of inheritance in CSS and use of bootstrap and determine the ways to enhance the code.



Inheritance in CSS

What Is Inheritance?

It is the process of passing down genetic information from parent to child.



Genetic materials are passed down from generation to another.

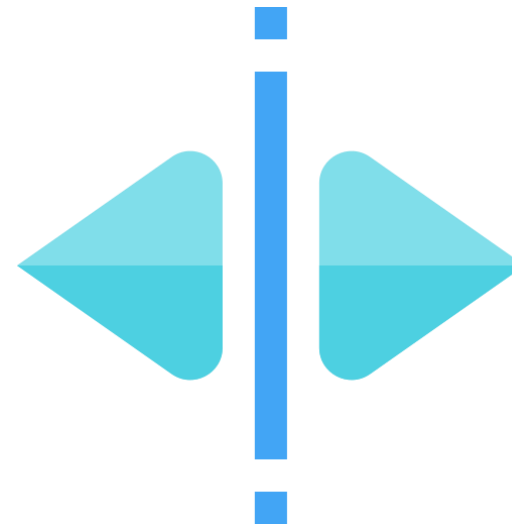
It controls what happens when a property on an element has no value specified.

What Is Inheritance?

CSS properties are divided into two parts:

Non-inherited properties

These are by default
set to the initial value
of the property.



Inherited properties

These are by default
set to the computed
value of the property.

What Is Inheritance?

The inherit keyword indicates that the property's value should be inherited from its parent element.

The inherit keyword is used in any CSS attribute.



Inherited properties are set to the parent element's computed value by default.

Inheritance: Example

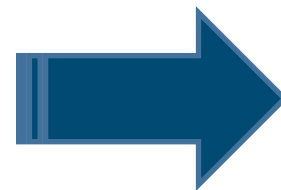
CSS code

```
<!DOCTYPE html>
<html>
<head>
<style>
span {
color: green.

border: 2px solid black.
}
.extra span {
color: inherit. }
</style>
</html>
```

```
<body>
<div>
Here a <span> element </span> which is green, as span elements are.
</div>
<div class=" extra" style=" color: purple">
Here is <span> a span element </span> which is purple because it
inherits from its parent. </div>
<div style=" color: orange">
Here is <span> a span element </span> which is green, as span
elements are set to be.
</div>
</body>
</html>
```

Output:



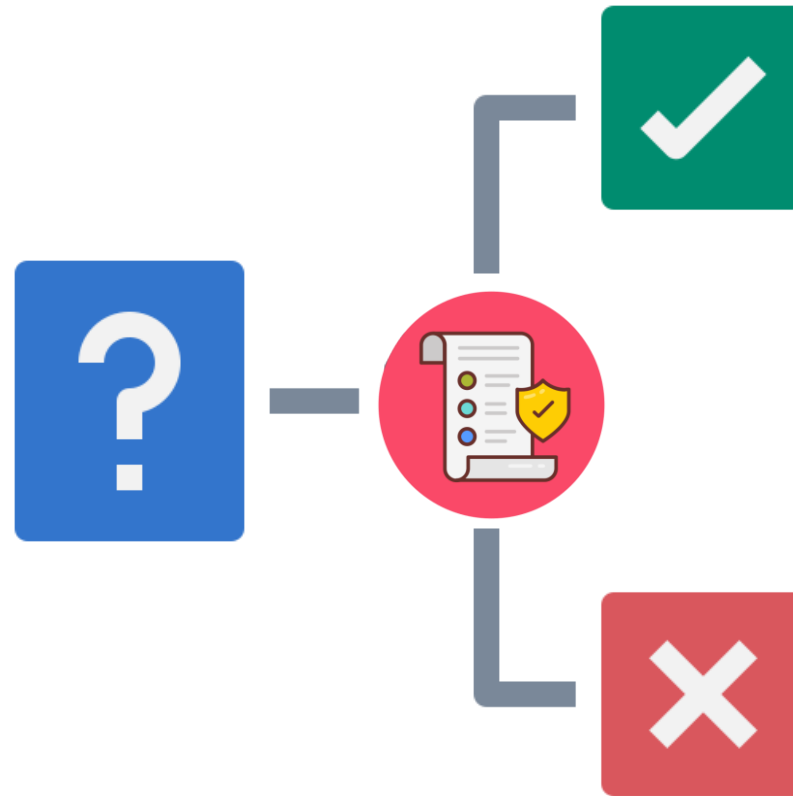
Here is a span element which is green, as span elements are set to be.
Here is a span element which is purple, because it inherits from its parent.
Here is a span element which is green, as span elements are set to be.

Specificity

What Is Specificity?

Specificity helps to determine which CSS property values are most relevant to an element.

The matching rules determine specificity.



What Is Specificity?

Specificity helps to determine which CSS property values are most relevant to an element.



Specifying Rules

The rule that is closer to the element will be styled when multiple rules are specified.



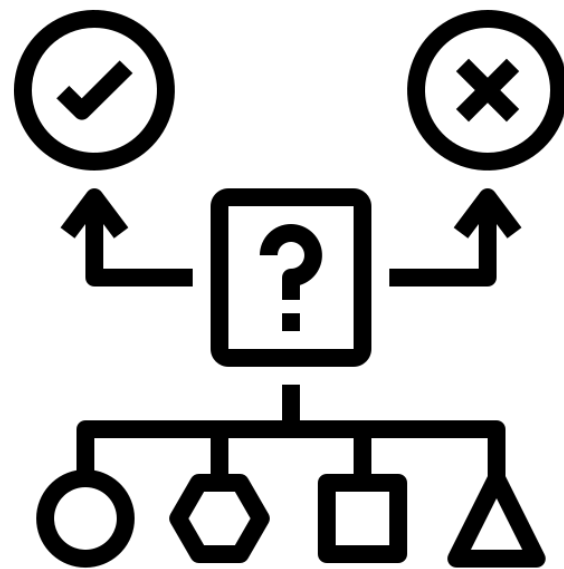
Rules with more specific selectors have greater specificity.



Integrate Bootstrap

Bootstrap in CSS

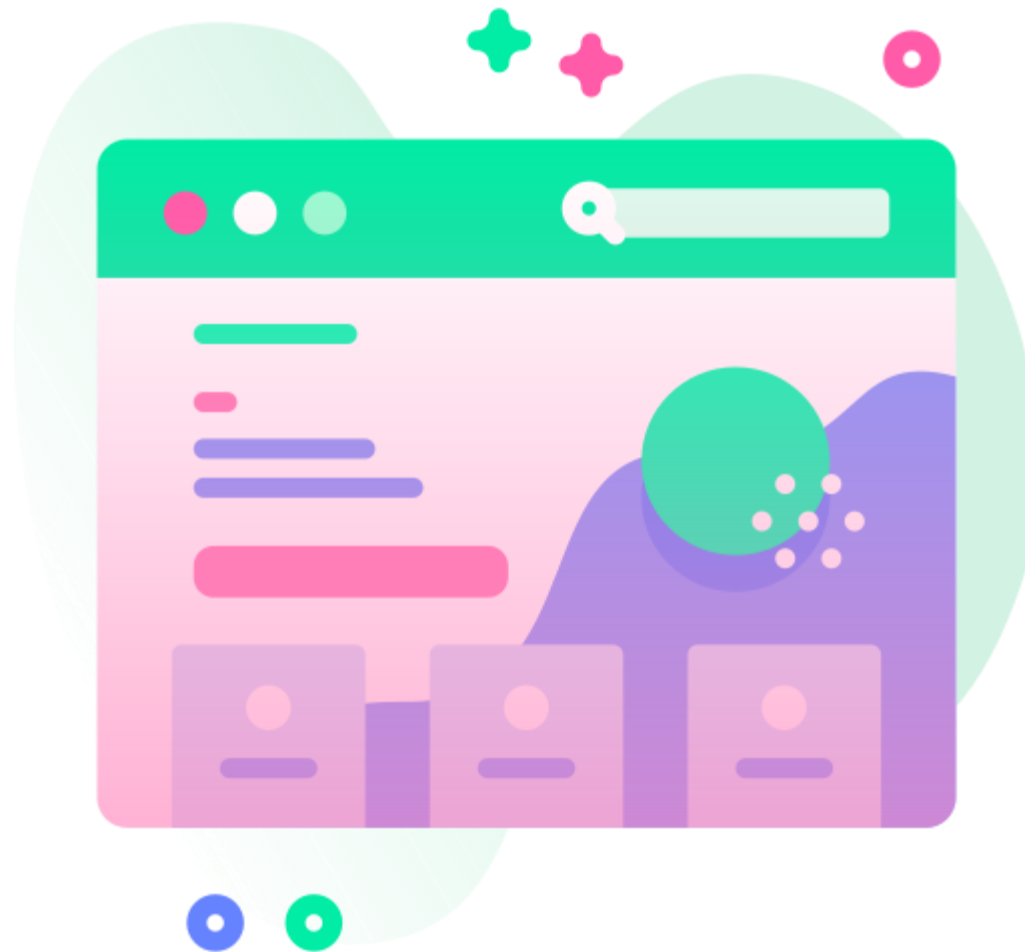
It is a free front-end framework that makes web development faster and easier.



The matching rules determine specificity.

Responsive Designs in Bootstrap

With bootstrap, one can create responsive designs.

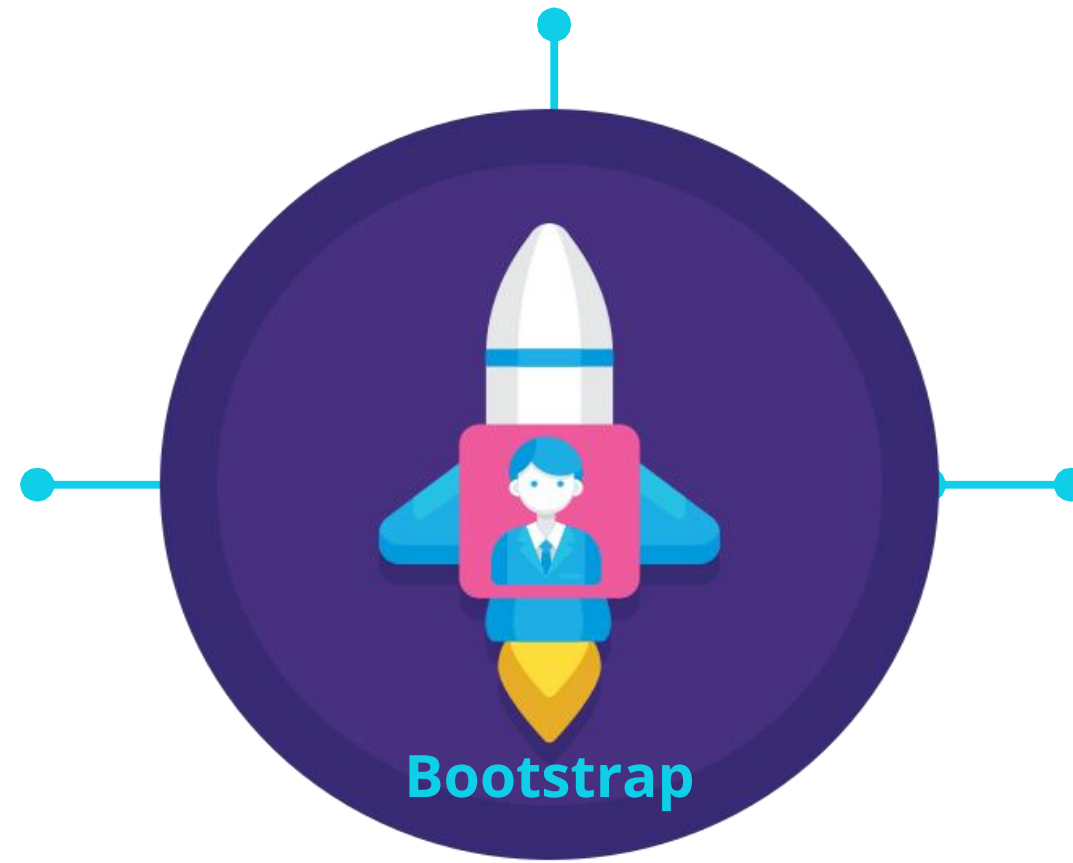


Responsive web design is a process of creating websites that are compatible with all devices.

Advantages of Bootstrap

Used to create a responsive design

Easy to use



Compatible with all devices and browsers

Bootstrap: Example

In this example, bootstrap links are used to make the web page more responsive and appealing.

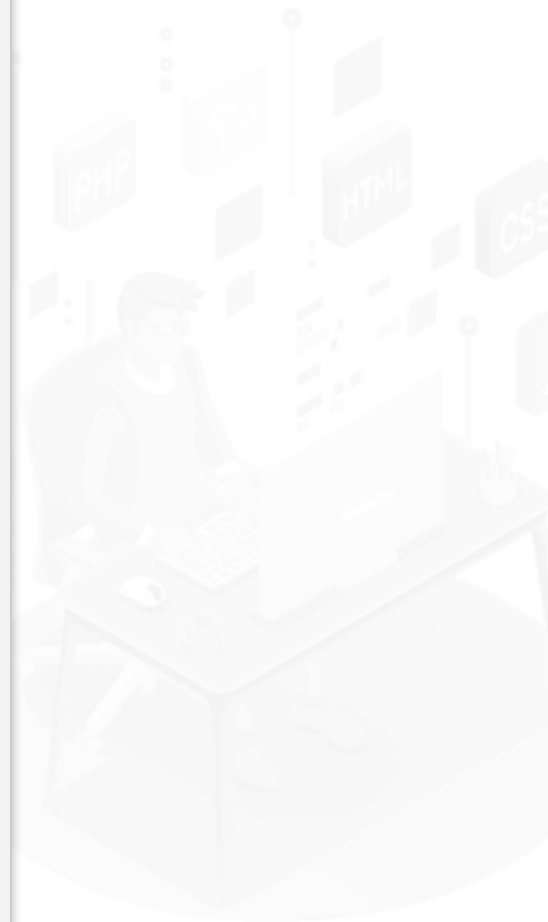
CSS Code

```
<!DOCTYPE html>
<html>
<head>
<title>Bootstrap </title>
<meta charset=" viewport" content=" width, initial-scale=1">
link href="
https://cdn.jadelvir.net/npm/bootstrap05.1.2/dist/css/bootstrap.min.css
"
rel=" stylesheet">
<script src="
https://cdn.jadelvir.net/npm/bootstrap05.1.2/dist/js/bootstrap.bundle.m
in.js"
></script>
</head>
```

Bootstrap: Example

CSS Code

```
<body>
<div class="container-fluid p-5 bg-dark text-white text-container">
<h1>Bootstrap </h1>
<p>
</p>
</div>
<div class="container mt-5">
<div class=" row">
<div class=" col-sm-3">
<h3>Easy to use</h3>
<p>
</p>
</div>
<div class=" col-sm-3">
<h3>Responsive features</h3> <p></p>
</div>
```



Bootstrap: Example

Bootstrap links are used to make a webpage responsive.

CSS Code

```
<div class=" co-sm-3">
<h3>Bootstrap </h3>
<p>
</p>
</div>
<div class=" col-sm-3">
<h3>Responsive features</h3>
<p></p>
</div>
<div class=" col-sm-3">
<h3>Responsive features</h3>
<p></p>
</div>
</div>
</div>
</body>
</html>
```

The rows are divided into columns based on the bootstrap properties.



Key Takeaways

- ➊ Inheritance is the process of passing down genetic information from parent to child.
- ➋ The inherit keyword indicates that the property's value should be inherited from its parent element.
- ➌ Specificity helps to determine which CSS property values are most relevant to an element.
- ➍ Bootstrap is a free front-end framework that makes web development faster and easier.
- ➎ Responsive web design is the process of creating a website that is compatible with all devices.



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Thank You