3.1 HTML containers

Containers and parent containers

A ***container*** is any part of a web document body that has opening and closing tags. Web developers typically create many containers as a convenience to assist in organizing and formatting content. Ex: Containers can be formatted by applying styles to adjust margins, padding, horizontal and vertical alignment, and other visual presentation attributes.

A ***parent container*** is the container in which another element resides.

Table 3.1.1: Common HTML containers.

Container	Description
<header>	Container for introductory content
<footer>	Container for content descriptive information about the webpage like author, copyright, or date modified
<address>	Container for person's or organization's contact information
<main>	Container for the document's primary content
<section>	Container for distinct parts of a document, such as a chapter
<article>	Container for self-contained content that can be reused independently, such as a news article
<nav>	Container for content relating to website navigation
<aside>	Container for content not directly related to the main topic of a document
*** ***	Generic tag for creating block containers
******	Generic tag for creating inline containers

Feedback?

PARTICIPATION ACTIVITY 3.1.1: Containers and parent containers.

Start 2x speed

```
<body>
   <p>The top-selling board
   games of all time are: </p>
   <ol>
      <li>Chess</li>
      <li>Checkers</li>
      <li>Backgammon</li>
      <li>Scrabble</li>
      <li>Monopoly</li>
      <li>Clue</li>
   </ol>
</body>
```

The top-selling board games of all time are:

1. Chess
2. Checkers
3. Backgammon
4. Scrabble
5. Monopoly
6. Clue

Captions

1. The <p> element is the container for the text "The top-selling board games of all time are:".
2. The <ol> element is the parent container for all list items.
3. Each <li> element is the container for one list item.

Feedback?

PARTICIPATION ACTIVITY 3.1.2: Parent containers.

Given the following HTML:

```
<section>
   <ol>
      <li><img src="George-Washington.jpg" alt="George Washington">
</li>
      <li><img src="John-Adams.jpg" alt="John Adams"></li>
      <li><img src="Thomas Jefferson.jpg" alt="Thomas Jefferson">
</li>
   </ol>
</section>
```

1) The `<ol>` element is the `<li>` element's parent container.

   - (•) True
   - ( ) False

Correct

The `<ol>` element contains all the `<li>` elements.

2) The `<ol>` element is the `<img>` element's parent container.

   - ( ) True
   - (•) False

Correct

Each `<img>` element is contained in an `<li>`, so `<li>` is the `<img>` element's parent container.

3) The `<ol>` element has a parent container.

- (•) True
- ( ) False

Correct

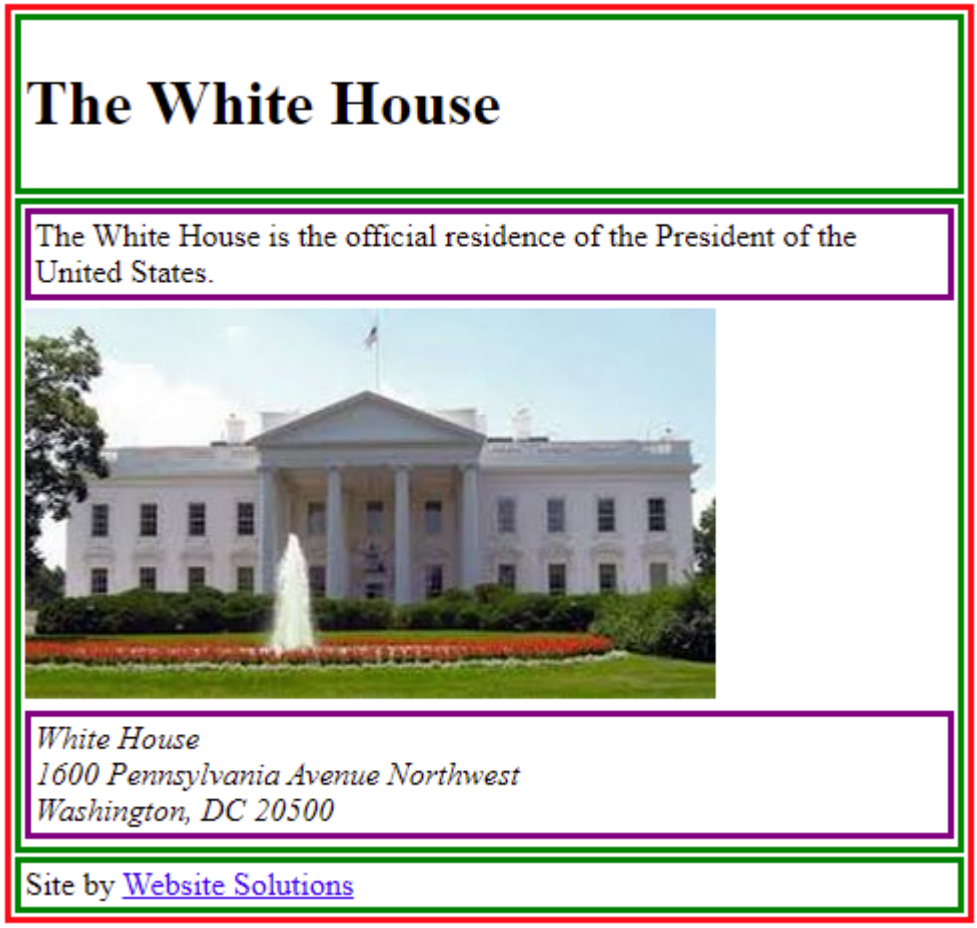
The `<ol>` element is inside the `<section>` container.

Feedback?

PARTICIPATION ACTIVITY 3.1.3: Container structure.

Use the following visible containers created with the provided HTML below to answer the questions.

```
<body>
   <header>
      <h1>The White House</h1>
   </header>
   <main>
      <p>
         The White House is the official residence of the President
of
         the United States.
      </p>
      <img src="WhiteHouse.jpg" alt="White House">
      <address>
         White House<br>
         1600 Pennsylvania Avenue Northwest<br>
         Washington, DC 20500
      </address>
   </main>
   <footer>
      Site by <a href="mailto:solutions@example.com">Website
Solutions</a>
   </footer>
</body>
```



1) Which tag creates the container that holds the entire webpage?

- <body>
- <header>
- <main>

Correct

The <body> tag creates the container within which everything in the webpage is contained.

2) Which tag creates the container that holds the picture?

- <body>
- <main>
- <img>

Correct

The <main> tag creates the container that holds the <img> tag. The <main> tag also contains the paragraph about the White House and the address container that holds the White House address.

3) Which tag creates the container that holds the White House address text?

- <footer>
- <main>
- <address>

Correct

The <address> tag contains the White House address text.

4) Which tag creates the parent container that holds the paragraph?

- ○ `<body>`
- ◉ `<main>`
- ○ `<p>`

Correct

The `<main>` tag creates the container that holds the paragraph about the White House. The `<main>` tag also contains the picture and the address container.

Feedback?

Block elements

HTML elements can be categorized as either block or inline. A ***block element*** (sometimes called a ***block-level element***) fills the width of the element's parent container and can contain other block elements, inline elements, and text. Block elements include `<h1>`, `<table>`, and `<p>`.

Some block elements cannot be contained within certain other block elements when the semantics are unclear. Ex: The `<p>` element cannot contain another `<p>` element.

A block element is typically displayed starting and ending on new lines. Ex: The `<ol>` tag is a block tag that fills the entire width of the parent container, and each ordered list starts on a new line separate from previous and following blocks.

The `<div>` element is a generic element for creating block containers. Unlike other block elements, such as `<p>` and `<table>`, `<div>` is the only block element with no semantic meaning.

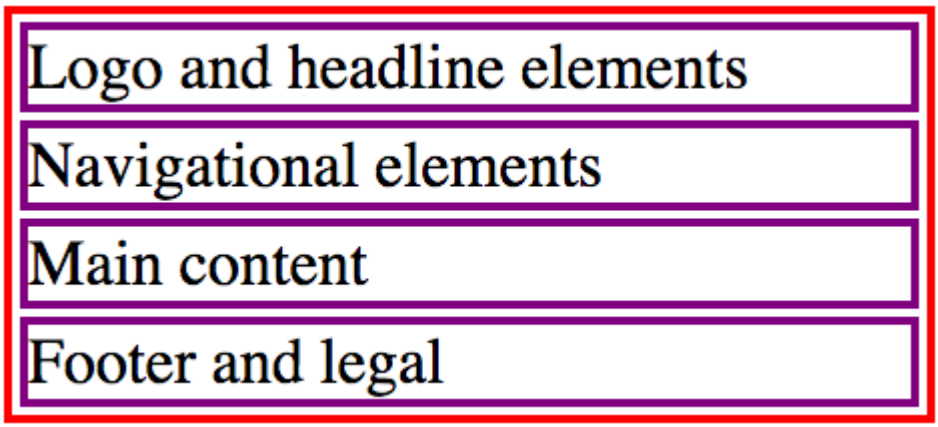
Note

By default, web browsers do not display container borders. For clarity, the container borders are visible in the following examples.

Example 3.1.1: Block elements with visible containers.

The following HTML breaks up a document into logical components using a `<div>` tag for each component. The corresponding image displays the border for each container.

```
<body>
   <div>Logo and headline elements</div>
   <div>Navigational elements</div>
   <div>Main content</div>
   <div>Footer and legal</div>
</body>
```



Feedback?

PARTICIPATION ACTIVITY 3.1.4: Block elements.

1) Which element is a generic block element without any implied meaning?

- `<block>`
- `<div>` (selected)
- `<section>`

Correct

The `<div>` element is used to create portions of the document, typically for presentational or functional purposes.

2) What is the width of a block element?

- The minimum width necessary to hold the block's contents.
- The full width of the webpage.
- The full width of the block's parent container. (selected)

Correct

The width of a block container is determined by the width of the parent container.

Feedback?

Inline elements

An ***inline element*** fills the minimum space possible in the element's parent container and can only contain text or other inline elements. Ex: The `<a>` element is an inline element that creates a hyperlink container as big as the link's internal content; a hyperlink does not fill the width or height of the link's parent paragraph.

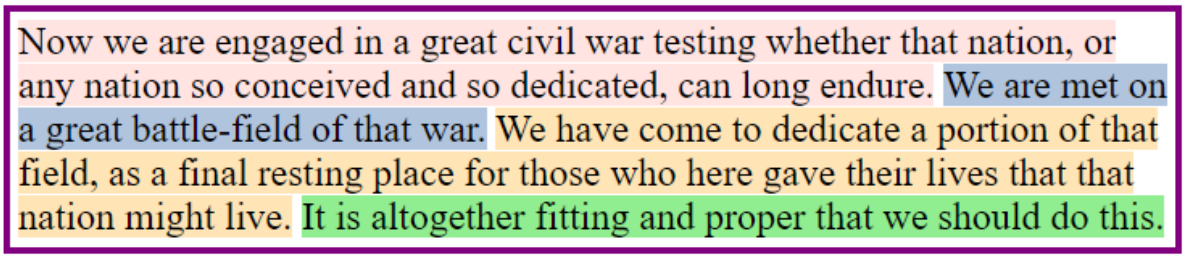
The `<span>` element is a generic inline element. Unlike other inline elements, such as `<a>` and `<em>`, the `<span>` element has no semantic meaning.

Since `<div>` and `<span>` do not have semantic meaning, `<div>` and `<span>` are used primarily for presentation and interaction purposes. *Good practice is to use tags such as `<address>` and `<article>` that convey semantic meaning when creating containers, and use `<div>` and `<span>` only when no other tags are appropriate.*

Example 3.1.2: Span tags with visible containers.

The following HTML breaks up the second paragraph from Lincoln's Gettysburg Address into sentences using a `<span>` tag for each component. The corresponding image displays a different background color for each inline container.

```
<p>
   <span>Now we are engaged in a great civil war testing whether that
   nation, or any nation so conceived and so dedicated, can long
   endure.</span>
   <span>We are met on a great battle-field of that war.</span>
   <span>We have come to dedicate a portion of that field, as a final
   resting place for those who here gave their lives that that nation
might
   live.</span>
   <span>It is altogether fitting and proper that we should do this.
</span>
</p>
```



Feedback?

PARTICIPATION ACTIVITY 3.1.5: Block and inline elements.

Refer to the following HTML, and determine if each element is a block or inline element.

```
<p>Click on the "swoosh" to go to Nike Headquarters. <br>
<a href="http://nike.com/"><img src="nike-swoosh.jpg" alt="Nike
swoosh"></a></p>
```

1) `<p>`
   - (•) block
   - ( ) inline

Correct

The `<p>` tag creates a block container that fills the width of the parent container.

2) `<img>`
   - ( ) block
   - (•) inline

Correct

The `<img>` tag does not contain other content. The `<img>` tag's width is determined by the tag's content and may not extend to the width of the `<a>` parent container.

3) `<a>`
   - ( ) block
   - (•) inline

Correct

The `<a>` tag only contains other inline content. The `<a>` tag's width is determined by the tag's content and may not extend to the width of the `<p>` parent container.

4) `<br>`
   - ( ) block
   - (•) inline

Correct

The `<br>` tag does not hold any other content and does not have a width.

Feedback?

PARTICIPATION ACTIVITY 3.1.6: Hierarchy of block and inline elements.

1) What types of elements can be inside a block element?
   - ( ) Only inline elements
   - ( ) Only block elements
   - (•) Both inline and block elements

Correct

Block elements can contain both inline and block elements.

2) What types of elements can be inside an inline element?

- (●) Only inline elements
- ( ) Only block elements
- ( ) Both inline and block elements

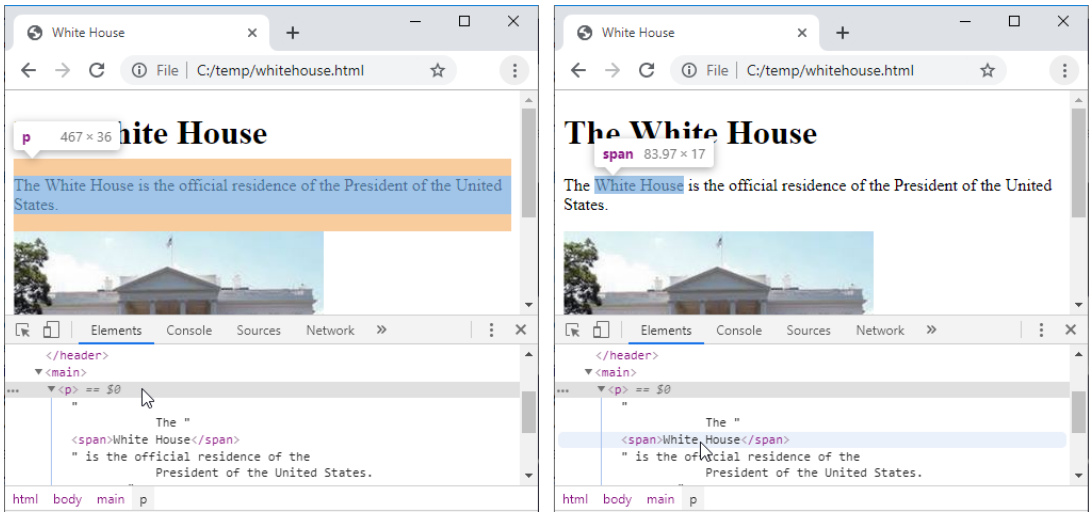
Correct

An inline element can only contain other inline elements and text.

Feedback?

Block vs. inline in Chrome DevTools

The difference between block and inline elements is visible in Chrome's DevTools. In the screenshot below-left, the mouse hovers over the `<p>` tag in the DevTools, and a rectangle appears around the entire paragraph in the webpage. The rectangle spans the browser width because `<p>` is a block element. Below-right, the mouse hovers over the `<span>` tag, but the rectangle is only as wide as the span's contents because `<span>` is an inline element.



PARTICIPATION ACTIVITY 3.1.7: Block vs. inline.

Change the `<div>` tags to `<span>` tags in the following HTML to see the difference between block and inline layout.

HTML CSS

```
1 <section>
2   <span>According to Wikipedia, J.R.R. Tolkien's <u>The Lord of t
3   <span>Wikipedia states that "only A Tale of Two Cities by Charl
4   <span>Tolkien's <u>The Hobbit</u> is the fourth best-selling no
5 </section>
```

Render webpage Reset code

Your webpage

According to Wikipedia, J.R.R. Tolkien's The Lord of the Rings is the second best-selling novel ever written. Wikipedia states that "only A Tale of Two Cities by Charles Dickens has sold more copies worldwide (over 200 million)". Tolkien's The Hobbit is the fourth best-selling novel of all time.

▼ View solution

Explain

```
--- START FILE: HTML ---


<section>
  <span>According to Wikipedia, J.R.R. Tolkien's <u>The Lord
of the Rings</u> is the second best-selling novel ever
written.</span>
  <span>Wikipedia states that "only A Tale of Two Cities by
Charles Dickens has sold more copies worldwide (over 200
million)".</span>
```

```
  <span>Tolkien's <u>The Hobbit</u> is the fourth best-
selling novel of all time.</span>
</section>


--- END FILE: HTML ---
```

Feedback?

CHALLENGE ACTIVITY 3.1.1: HTML containers.

530096.4000608.qx3zqy7

Start

Modify the <h1> to be in a <header>, the section content to be in a <section>, and the copyright to be in a <footer>. SHOW EXPECTED

```
1
2 <h1>Intro</h1>
3 <p>First section</p>
4 <p>&copy; 2012 - Bjorn Stormmengaurd</p>
5
```

1 2 3 4

Check Next

View your last submission

Feedback?

How was this section? Provide section feedback