

< HTML >

[box model]

block vs. **inline** display

The key to understanding how **HTML** + **CSS** works is to imagine that there is an invisible box around every **HTML** element.

Block level elements are outlined w/ red + inline elements in green.

<body> creates 1st box, then **<h1>**, **<h2>**, **<p>**, **<i>** + **<a>** each create their own boxes within it.

The Cottage Garden

The *cottage garden* is a distinct style of garden that uses an informal design, dense plantings, and a mixture of ornamental and edible plants.

The Cottage Garden originated in England and its history can be traced back for centuries, although they were re-invented in 1870's England, when stylized versions were formed as a reaction to the more structured and rigorously maintained English estate gardens.

The earliest cottage gardens were more practical than their modern descendants, with an emphasis on vegetables and herbs, along with some fruit trees.

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< HTML >

3 categories of HTML elements

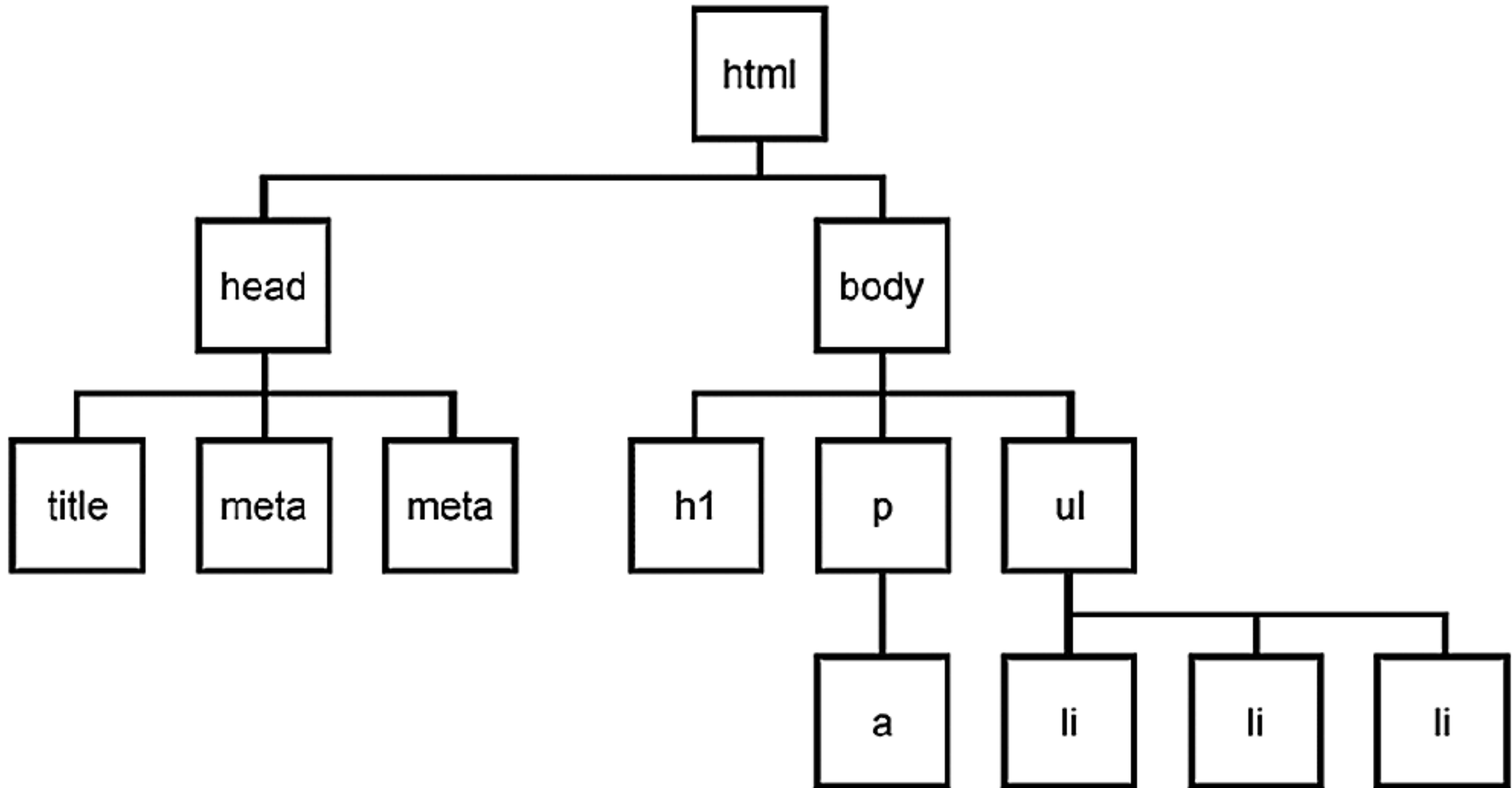
1 - **block**: large blocks of content has height + width
<p>, <h1>, <blockquote>, , , <table>

2 - **inline**: small about of content, no height or width
**<a>, , ,
, , <time>**

a. **inline block**: inline content w/ height + width

3 - **metadata**: information about the page, usually not visible
<title>, <meta>, <script>

Parent / Child Element Structure



Parent + Child

```
<!doctype html>
  <head>
    head is the parent of title
    <title> Week 1 </title>
  </head>
  <body>
    div is the child of body
    <div>
      Here's a Great Site.
    </div>
  </body>
</html>
```

body is the child of html

The `<head>` element contains the metadata for a web page. Metadata is information about the page that isn't displayed directly on the web page. Unlike the information inside of the `<body>` tag, the metadata in the head is information about the page itself.

Text tags

h1, h2, h3, h4, h5, h6 are text tags for headings

p is a tag for paragraphs

b is for bold, **i** is for italics

**** is for **bold** **** is for *italics*

ul, ol, li are used for making lists

ul: unordered lists

ol: ordered lists

li: an individual list tag

**
** will break to a new line

```
<h1>Heading 1</h1>
```

```
<h2>Heading 2</h2>
```

```
<h3>Heading 3</h3>
```

```
<h4>Heading 4</h4>
```

```
<h5>Heading 5</h5>
```

```
<h6>Heading 6</h6>
```

`<div>`s can contain any text or other HTML elements, such as links, images, or videos. Remember to always add two spaces of indentation when you nest elements inside of `<div>`s for better readability.

Semantic HTML

HTML should be coded to represent the data that will be populated and not based on its default presentation styling. Presentation (how it should look), is the sole responsibility of CSS.

Some of the benefits from writing semantic markup are as follows:

- Search engines will consider its contents as important keywords to influence the page's search rankings (see SEO)
- Screen readers can use it as a signpost to help visually impaired users navigate a page
- Finding blocks of meaningful code is significantly easier than searching through endless divs with or without semantic or namespaced classes
- Suggests to the developer the type of data that will be populated
- Semantic naming mirrors proper custom element/component naming

<https://developer.mozilla.org/en-US/docs/Glossary/Semantics>

`<p>`

`<h1>` - `<h6>`

Semantic elements

`<main>`

dominant content of the `<body>` element

`<article>`

A document, page or site. This is usually a root container element after body

`<section>`

Generic section of a document

`<header>`

Intro section of a document

`<footer>`

Footer at end of a document or section

`<nav>`

Navigational section

Use these **before** div when appropriate.

Semantic elements

`<aside>`

represents a portion of a document whose content is only indirectly related to the document's main content. Asides are frequently presented as sidebars or call-out boxes.

`<details>`

creates a disclosure widget in which information is visible only when the widget is toggled into an "open" state.

`<figcaption>`

represents a caption or legend describing the rest of the contents of its parent `<figure>`

`<mark>`

represents text which is marked or highlighted for reference or notation purposes, due to the marked passage's relevance or importance in the enclosing context.

`<summary>`

element specifies a summary, caption, or legend for a `<details>` element's disclosure box. Clicking the `<summary>` element toggles the state of the parent `<details>` element open and closed.

`<time>`

represents a specific period in time.

tag attribute value

```
<video src= "filepath/file.mov" alt= "this is the video" height="300"> </video>
```

```
<html attribute= "value" attribute= "value" attribute= "value"> </html>
```

Absolute Links direct to another server

OPENING
LINK TAG

URL WE ARE
DIRECTED TO



TEXT WE
CLICK ON

CLOSING
TAG

```
<a href="https://www.youtube.com/watch?v=qcnnI6HD6DU"> absolute link</a>
```

< a href — stands for *hyperlink reference*

RELATIVE Links

direct to a file on the same site /server

It's faster to simple direct to the file path.

re: Unix!!

if the file is in the same folder:

```
<a href="index.html">Homepage</a>
```

if the file is in the parent folder:

```
<a href="../index.html">Homepage</a>
```

if the file is in the child folder:

```
<a href="images/photos.html">Photos</a>
```

id attribute:

```
<a href="#thisID">Jump to a different element on page</a>
```

```
<li><a href="#theFoot">id attribute link</a></li>
```

RELATIVE Links

direct to a file on the same site /server

It's faster to simple direct to the file path.

id attribute: ``Jump to a different element on page``

```
<li><a href="#theFoot">id attribute link</a></li>
```

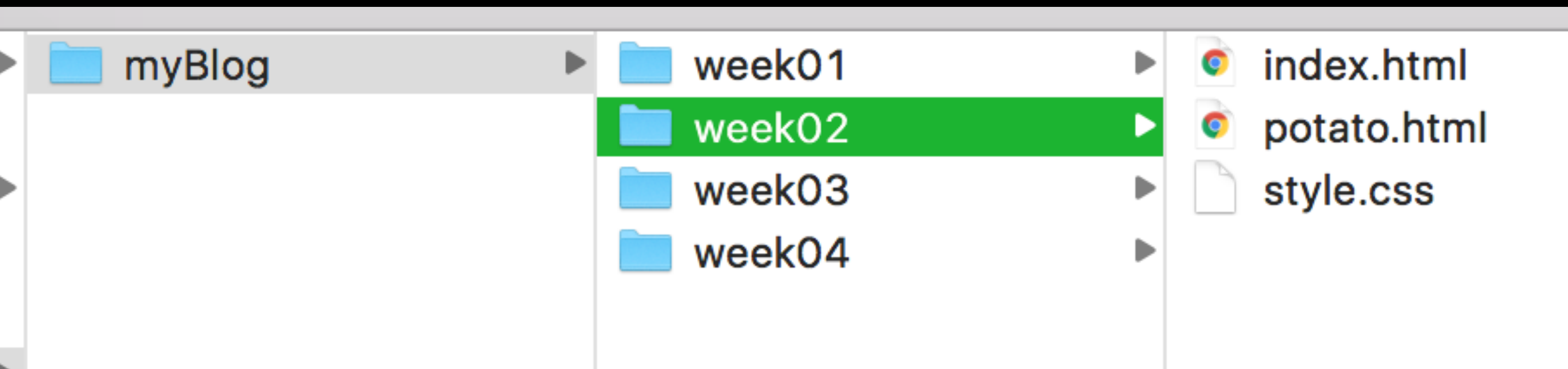
Why `index.html`?

Why `index.html`?

The main homepage of a site written in HTML (and the homepage of each section in a child folder) is called `index.html`.

Web servers are usually set up to return the `index.html` file if no file name is specified. Therefore, it's always a good idea to name your "home" page `index.html`

Why **index.html**?



The `` tag has a required attribute called `src`. The `src` attribute must be set to the image's source, or the location of the image. In some cases, the value of `src` must be the *uniform resource locator* (URL) of the image. A URL is the web address or local address where a file is stored.

Images: relative vs. absolute url

```
<img src= "images/potato07.png" alt= "spud" >
```

```
<img src= "https://pngriver.com/wp-content/uploads/2018/04/Download-Potato-PNG-Pic.png" alt= "spud" >
```

The **** tag is for images, which can be on your local directory or on another webpage.
Read all about **** tag [here](#). The same goes for **<video>** + **<audio>** tags

The **alt** attribute, which means alternative text, brings meaning to the images on our sites. The **alt** attribute can be added to the image tag just like the **src** attribute. The value of **alt** should be a description of the image.

```

```

1. If an image fails to load on a web page, a user can mouse over the area originally intended for the image and read a brief description of the image. This is made possible by the description you provide in the **alt** attribute.
2. Visually impaired users often browse the web with the aid of screen reading software. When you include the **alt** attribute, the screen reading software can read the image's description out loud to the visually impaired user.
3. The **alt** attribute also plays a role in Search Engine Optimization (SEO), because search engines cannot "see" the images on websites as they crawl the internet. Having descriptive **alt** attributes can improve the ranking of your site.

Like the `` tag, the `<video>` tag requires a `src` attribute with a link to the video source.

Unlike the `` tag however, the `<video>` element requires an opening and a closing tag.

<video /> structure

main
tag

poster

width/
height

control
attributes

```
<body>

  <!-- Adding video tag -->
  <video poster="media/listen.jpg" width="400px" preload loop autoplay controls>
    <source src="media/listen.mp4"/>
    <source src="media/listen.webm"/>
  </video>
</body>
```

different
sources

After the `src` attribute, the `width` and `height` attributes are used to set the size of the video displayed in the browser.

The `controls` attribute instructs the browser to include basic video controls: pause, play and skip. Unlike the `` tag however, the `<video>` element requires an opening and a closing tag.

The text, "Video not supported", between the opening and closing video tags will only be displayed if the browser is unable to load the video.

<audio /> structure

main
tag

control
attributes

```
<audio controls autoplay loop>
  <source src="audio/virginia.mp3" />
  <source src="audio/virginia.ogg" />
  <p>This browser does not support this audio format</p>
</audio>
```

different
sources

text is the
file cannot
be found

Some Media Attributes

Preload - what preloads when the page loads

Controls - if the play/stop buttons are visible

Autoplay - if the video should start playing
automatically

Loop - if the video should loop on completion

Attributes

If we want to expand an element's tag, we can do so using an attribute. Attributes are content added to the opening tag of an element and can be used in several different ways, from providing information to changing styling. Attributes are made up of the following two parts:

- 1) The **name** of the attribute
- 2) The **value** of the attribute

One commonly used attribute is the **id**.

We can use the **id** attribute to specify different content (such as **<div>**s) and is really helpful when you use an element more than once.

```
<div id="intro">  
    <h1>Technology</h1>  
</div>
```

**** contains short pieces of text or other HTML. They are used to separate small pieces of content that are on the same line as other content.

```
<div>  
  <h1>Technology</h1>  
</div>
```

```
<div>  
  <p> Wherever there's a  
    <span>computer</span>, there's a skilled  
    person developing, maintaining, hacking,  
    advancing or simply using it.</p>  
</div>
```

<Text> input

Username: |

Password input

Username:

Password:

Text area

What is your favorite movie to watch?

What is your favorite movie to watch?

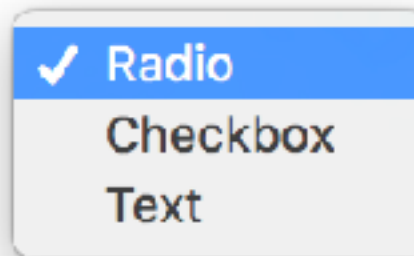
Checkbox

Select your favorite input type:

☐ Radio ☒ Checkbox ☒ Text

Drop down list

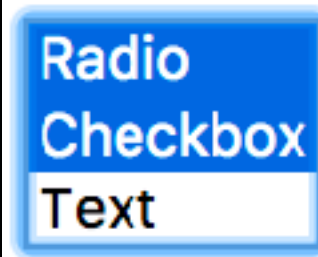
Select your favorite input type:



A drop-down menu with a blue header bar. The menu is open, showing three options: 'Radio' (selected with a checkmark), 'Checkbox', and 'Text'.

Multiple select box

Select your favorite input type:



A multiple select box with a blue header bar. The box is open, showing three options: 'Radio', 'Checkbox', and 'Text'. 'Radio' and 'Checkbox' are selected, while 'Text' is not.

Submit button

Are you ready to make that selection?

SUBMIT