Lists

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Lists

HTML Lists

- When we have a collection of related items in our HTML, we can use *list* elements to mark them up
- There are 2 different types of list we can create
  - ▸ **Ordered list** (the order of the items is meaningful)
  - ▸ **Unordered list** (the order of the items is irrelevant)
- There is also a *definition list*, but it has a different purpose

Unordered Lists

- To create an *unordered list*, we use the **ul** tag to represent the entire *list* of "things"
- We use **li** (list item) tags to represent each "thing" (or item) in the list

  - **li** is the only tag which can be a direct *child* of **ul**

Unordered List example

- A list where the order of items is irrelevant:

```html
<h2>Shopping list</h2>
<ul>
    <li>Cake</li>
    <li>Biscuits</li>
    <li>Coffee</li>
</ul>
```

Unordered list example - default styles

- By default, an unordered list is indented, with *bullets* to the left of each *item*

Shopping list

- Cake
- Biscuits
- Coffee

Ordered Lists

- An *ordered list* is identical to an *unordered list* with **ol** instead of **ul**

```html
<h2>Coding instructions</h2>
<ol>
    <li>Open Editor</li>
    <li>Create new file and save it</li>
    <li>Type your HTML code</li>
</ol>
```

- By default, *ordered lists* are indented with numbers to the left of each item (numbers are auto-generated):

Programming instructions

1. Open Notepad++
2. Create new file and save it
3. Type your HTML code

CSS and Lists

- All of the standard CSS properties can be applied to lists

  - *color*, *font-size*, etc.

- However, the properties can be set on either the *list* element or the *list item* elements

  - Normally on the *list* element... Why do you think this is?

CSS and Lists - example 1

- To make all items in **unordered** lists green:

```css
ul {
    color: #008800;
}
```

- Due to *inheritance*, the rule will be applied to any *li* elements that are within a *ul*

CSS and Lists - example 2

- To make all items in **ordered** lists blue:

```css
ol {
    color: #008800;
}
```

- Again, due to *inheritance*, the rule will be applied to any *li* elements that are within a *ol*

List-specific CSS

- There are some properties which exist specifically for lists

  - most interesting to us is **list-style-type**

- The *list-style-type* property determines:

  - The type of bullet used for *unordered lists*
  - The style of numbering used for *ordered lists*

Property: list-style-type

- For *unordered lists*, we can use the following *values* with *list-style-type*:

  - ▸ **disc** (the default)
  - ▸ **circle**
  - ▸ **square**
  - ▸ **none**

Property: list-style-type

- For *ordered lists*, we can use the following *values* with *list-style-type*:

  - ▸ **decimal** (the default)
  - ▸ **decimal-leading-zero**
  - ▸ **lower-alpha**, **upper-alpha**
  - ▸ **lower-roman**, **upper-roman**
  - ▸ **none**

Property: list-style-type example 1

- To display *square* bullets with *unordered lists*

```css
ul {
    list-style-type: square;
}
```

Property: list-style-type example 2

- To display lower-case roman numerals with *ordered lists*

```
ol {
    list-style-type: lower-roman;
}
```

Property: list-style-type example 3

- To remove bullets from unordered lists completely:

```css
ul {
    list-style-type: none;
}
```

- However, the list items will still be indented…

About list markup

- As mentioned, the **li** element is the only element that can be a *direct child* of **ul** and **ol** elements.
- i.e. this is invalid code (*p* is a direct child of *ul*):

```html
<ul>
    <li>I am a list item</li>
    <p>Hello</p>
    <li>I am a list item</li>
</ul>
```

About list markup

- Similarly, **li** elements may only appear within either **ul** or **ol** elements.

- This is invalid code (*li* is not within a *ul* or *ol*):

```html
<body>
    <h2>Hello</h2>
    <p>I am a paragraph</p>
    <li>I am not in a list!</li>
</body>
```

About list markup

- However, we can place anything we like within an *li* element:

```html
<ol>
    <li>
        <h3>A heading</h3>
        <p>A paragraph</p>
    </li>
    <li>
        <h3>Another heading</h3>
        <p>Another paragraph</p>
    </li>
</ol>
```

Exercise

- Now do the *List exercise*