

Comp I25 - Visual Information Processing

Spring Semester 2018 - week 7 - wednesday

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HTML - markup for tables

- great example of poor usage of HTML markup is `<table>` element
- main issue is use of nested tables and spacer elements, images...
- if used correctly in structured markup
 - *tables can be very useful structure*
 - *impart a sense of semantic organisation to data*
 - *creating various interpretive information*
- what is a table for?
 - *structuring data*
 - *data to impart curated information...*

HTML - markup for tables - example I

- simple table example - columns and rows for *presentation* purposes

```
<p>Travel Destinations</p>
<!-- basic table structure - minimal - rows and columns -->
<table>
  <tr>
    <td><b>Place</b></td>
    <td><b>Country</b></td>
    <td><b>Sights</b></td>
  </tr>
  <tr>
    <td>Nice</td>
    <td>France</td>
    <td>Cours Saleya</td>
  </tr>
  <tr>
    <td>Cannes</td>
    <td>France</td>
    <td>La Croisette</td>
  </tr>
  <tr>
    <td>Antibes</td>
    <td>France</td>
    <td>Picasso museum</td>
  </tr>
</table>
```

example

- example - basic table for presentation

HTML - markup for tables - example 2

- add semantic structure & elements to table caption - replace <p> with correct <caption> usage for a table...

```
<!-- basic table structure - minimal - add a caption -->
<table>
  <caption>Travel Destinations</caption>
  ...
```

- modern browsers style <caption> by default
 - *centred above the table*
- modify styling as required

example

- example - basic table caption

HTML - markup for tables - example 3

- add a summary attribute to the table

```
<!-- basic table structure - minimal - add summary attribute -->
<table summary="structured table data for travel destinations...">
  <caption>Travel Destinations</caption>
  ...
```

- add further meaning and structure to the table
 - *use of a summary attribute on the table element*
- processed by the browsers for semantics
- particularly useful for non-visual browsers

example

- example - basic table with summary

HTML - markup for tables - example 4

- add correct headers <th> to the table

```
<!-- basic table structure - minimal - add table headers -->
<table summary="structured table data for travel destinations...">
  <caption>Travel Destinations</caption>
  <tr>
    <th>Place</th>
    <th>Country</th>
    <th>Sights</th>
  </tr>
  ...

```

Benefits include:

- remove need for presentational markup, bold elements
- visual browsers process structural and presentation qualities of headings
- such heading elements can also be useful for non-visual browsers

example

- example - basic table with headers

HTML - markup for tables - example 5

- table markup and accessibility markup...

```
<!-- basic table structure - accessibility - add ids and headers -->
<table summary="structured table data for travel destinations...">
  <caption>Travel Destinations</caption>
  <tr>
    <th id="place">Place</th>
    <th id="country">Country</th>
    <th id="sights">Sights</th>
  </tr>
  <tr>
    <td headers="place">Nice</td>
    <td headers="country">France</td>
    <td headers="sights">Cours Saleya</td>
  </tr>
  ...

```

- creating a known relationship between the table's header, and its data
- a screen reader, for example, may read this table as follows,
 - *Place: Nice, Country: France, Sights: Cours Saleya*
- established a pattern to the output information for non-visual devices...

example

- example - basic table with accessibility

HTML - markup for tables - example 6

- add extra semantic markup for `thead`, `tfoot`, `tbody`...

```
<!-- basic table structure - add head, foot, body -->
<table summary="structured table data for travel destinations...">
  <caption>Travel Destinations</caption>
  <thead>
    <tr>
      ...
    </tr>
  </thead>
  <tfoot>
    <tr>
      ...
    </tr>
  </tfoot>
  <tbody>
    <tr>
      ...
    </tr>
  </tbody>
</table>
```

- head and foot elements customarily go above the table body
 - *allows modern browsers, readers, &c. to load that data first*
 - *then render the main table content*

Benefits include:

- better underlying structure to data
- greater ease for styling a table due to clear divisions in data and information
- structural and presentational markup now working together correctly...

example

- example - basic table with head, foot, body

HTML - presentational vs structural

- consider *presentational* vs *structural*
 - e.g. *usage of quotations in markup*
 - *similar consideration to headings...*
- need to convey meaning and structure
- rather than a mere presentational instruction
- consider HTML's phrase elements
 - e.g. `<cite>`, `<code>`, `<abbr>`
- each phrase element imparts a sense of underlying meaning
 - *structure & then presentation...*

HTML - minimising markup

- noticeable benefit to creating sites with valid markup
 - *separation of structural from presentational*
 - *general reduction in required markup*
- simply conforming to the W3C's specifications
 - *does not inherently guarantee less code for your project*
 - *possible to include many unnecessary elements & retain valid markup*
 - *markup may still be valid*
- project issues may include:
 - *lack of efficiency*
 - *extraneous markup and code*
- to help minimise markup
 - *consider classes added to markup*
 - *are there too many? are they all necessary? &c.*
 - *avoid class usage for unique reference*
 - *avoid <div> usage for explicit block-level elements*

References

- [W3Schools](#)
- [HTML - tables](#)