HTML

☰ Chapter No.	31
⊙ Status	Completed

▼ Elements & Tags

- Normal elements have matching start and end tags

- Void elements have a start tag but no matching end tag

▼ Basic Elements

▼ <!DOCTYPE>

- Declares the type and version of the document

- <!DOCTYPE html> declares that the webpage is written in HTML5

▼ <html>

- Must be the root element of the document

- Contains the entire HTML document

▼ <head>

- Contains metadata content of the document

- Must be the direct child of the <html> element

▼ <title>

- Contains the title of the document and must not be empty

- Must be the direct child of the <head> element

▼ <body>

- Contains all visible content of the document

- Must be the direct child of the <html> element

- <!-- comments →

▼ Example

```
<!DOCTYPE html>
<html>
  <head>
    <title>My First Webpage</title>
  </head>
  <body>
    <h1>Heading 1</h1>
  </body>
</html>
<!-- this is a comment -->
```

▼ Headings

    ▼ \<h1\> to \<h6\>

        • Titles or subtitles

        • \<h1\> is the most important heading and the largest

        • \<h6\> is the least important heading and the smallest

▼ Text Formatting

    ▼ \<p\>

        • Start a new paragraph

    ▼ \<b\>

        • Bold text

    ▼ \<i\>

        • Italicise text

    ▼ \<u\>

        • Underline text

    ▼ \<br\>

        • Add a line break

    ▼ \<hr\>

        • Add a horizontal line and a line break

▼ Lists

    ▼

        • Create an unordered list

    ▼

        • Create an ordered list

    ▼

        • List item

    ▼ Example

```
<ul>
  <li>Item 1</li>
  <li>Item 2</li>
  <li>Item 2</li>
</ul>
```

▼ Tables

    ▼ <table>

        • Create a table

    ▼ <th>

        • Table header

    ▼ <tr>

        • Table row

    ▼ <td>

        • Table data within a table row

    ▼ Example

```
<table>
  <tr>
    <th>Subject</th>
    <th>Grade</th>
  </tr>
```

```
  <tr>
    <td>English</td>
    <td>A1</td>
  </tr>
  <tr>
    <td>Chinese</td>
    <td>B4</td>
  </tr>
</table>
```

▼ Images & Hyperlinks

  ▼ <img>

- Displays an image in the document

- Must be contained within the <body> element

- src - specifies the path to the image

- alt - specifies an alternate text for the image if the image cannot be displayed for some reason

  ▼ Example

```
<img src="dog1.jpeg" alt="image of a dog">
```

  ▼ <a>

- Anchor tag to create a hyperlink

- Must be contained within the <body> element

- href - specifies the hyperlink's destination

  ▼ Example

```
<a href="https://www.google.com">This link goes to Google</a>
```

▼ URLs

  ▼ Absolute URLs are used when creating a link to an external source

- When creating a link to an external website, the link provided must be an absolute URL

  ▼ Example

  ```
  <a href="https://www.google.com">
  ```

▼ Relative URLs are used when creating a link to a local source

- If a path for a file is not specified, the file is assumed to be in the same folder as the HTML file

- ▼ If the file is located in a folder which is in the same folder as the HTML file, the folder name is specified by:

  - "folder_name/file_name"

  ▼ Example

  ```
  <a href="images/cat.jpeg">
  ```

- ▼ If the file is located in outside of the HTML file's folder, the parent directory of the current folder is specified by:

  - "../"

  ▼ Example

  ```
  <a href="../results/about_page.html">
  ```

▼ <div> & <span> Elements

  ▼ <div>

  - Organises HTML code into blocks

  - Particularly useful when adding style to a webpage

  ▼ Example

  ```
  <div style="color:red">
    <h1>This is in a div</h1>
  ```

```
    <p>This is also in a div</h1>
</div>
```

▼ <span>

- Typically used to separate a line of code

- Particularly useful when adding style to a webpage

  ▼ Example

```
<p>My favourite colour is <span style="color:red">red</span>.</p>
```

▼ Special Characters

- Special characters must be replaced by character references

  ▼ <

  - <

  ▼ >

  - >

  ▼ &

  - &

  ▼ "

  - "

▼ Forms

  ▼ Form Element

    ▼ <form>

      - Creates a form

  ▼ Input Elements

    - The "name" attribute given to input elements allows Flask to identify which piece of data the user has submitted

    ▼ <input type="text">

- Text field

▼ Example

```
<input type="text" name="user_comments">
```

▼ <input type="checkbox">

- Checkbox

▼ Example

```
<input type="checkbox" name="receive_updates" value="Yes">
```

▼ <input type="radio">

- Radio button

▼ Example

```
<input type="radio" name="gender" value="male">
<input type="radio" name="gender" value="female">
```

▼ <input type="file">

- File upload field

▼ Example

```
<input type="file" name="submitted_image">
```

▼ <input type="submit">

- Submit button

▼ Example

```
<input type="submit" value="Click here to submit!">
```

▼ <input type="hidden">

- Creates a hidden text field

- Typically used to include information which the user should not see
- ▼ Example

  ```
  <input type="hidden" name="customerID" value="3456">
  ```

▼ <textarea>

- Text box for the user to input multi-line text
- rows - specifies number of rows
- cols - specifies number of columns
- ▼ Example

  ```
  <textarea name="user_review" rows="4" cols="50">
  ```