XHTML

Module-1

What is XHTML?

- XHTML stands for E**X**tensible **H**yper**T**ext **M**arkup **L**anguage
- XHTML is almost identical to HTML 4.01
- XHTML is a stricter and cleaner version of HTML
- XHTML is a stricter, more XML-based version of HTML
- XHTML is HTML defined as an XML application
- XHTML is supported by all major browsers

Why XHTML?

- Many pages on the internet contain "bad" HTML.
- The following HTML code will work fine if you view it in a browser (even if it does NOT follow the HTML rules):

```
<html>
<head>
<title>This is bad HTML</title>
<body>
<h1>Bad HTML
<p>This is a paragraph
</body>
```

Why XHTML?

- Today's market consists of different browser technologies. Some browsers run on computers, and some browsers run on mobile phones or other small devices. Smaller devices often lack the resources or power to interpret a "bad" markup language.

- Therefore - by combining the strengths of HTML and XML, XHTML was developed. XHTML is HTML redesigned as XML.

- XHTML was developed to make HTML more extensible and flexible to work with other data formats (such as XML).

- In addition, browsers ignore errors in HTML pages, and try to display the website even if it has some errors in the markup.

- So XHTML comes with a much stricter error handling.

- **It is used to define the quality standard of web pages.**

- **XHTML is an official standard of the W3C, your website becomes more compatible and accurate with many browsers.**

- File Extension: **.xhtml, .xht, .html, .htm**

The Most Important Differences from HTML:

- **Document Structure**
  - XHTML DOCTYPE is **mandatory**
  - The xmlns attribute in <html> is **mandatory**
  - <html>, <head>, <title>, and <body> are **mandatory**
- **XHTML Elements**
  - It must be **properly nested**
  - It must always be **closed**
  - It must be in **lowercase**
  - XHTML documents must have **one root element**
- **XHTML Attributes**
  - Attribute names must be in **lower case**
  - Attribute values must be **quoted**
  - Attribute minimization is **forbidden (Eg. <option selected>Mon)**

Rules and Syntax of XHTML

1. **Doctype Definition**
   - XHTML documents MUST have a DOCTYPE Declaration and it must validate

2. **Documents must be well-formed.**
   - all elements must have closing tags or be written in a special form and that all elements must be correctly nested.

3. **All element and attribute names must be lower case.**
   - XML is case-sensitive

4. **Non-empty elements must have a closing tag.**
   - For example a paragraph <p> would be closed by the next paragraph to follow, but in XHTML you are required to close all elements so <p> would be closed by </p>

5. **Attribute values must always be quoted**
   - For example <table width="90%"> is correct but <table width=90%> is incorrect.

Rules and Syntax of XHTML

6. **Attribute Minimization is not allowed.**

   - For example <textarea readonly> is incorrect, it must be <textarea readonly="readonly">

7. **Empty Elements must also be closed.**

   - examples shown become <br/>, <hr/> and <input type="text"/> BUT in order to be backward compatible we add an extra space, so currently you should use: <br />, <hr /> and <input type="text" />

8. **Whitespace in attribute values**

   In attribute values, user agents/browsers will strip away one or more leading and trailing whitespace characters from attribute values and leave only a single whitespace character!

Rules and Syntax of XHTML

9. **Internal Links**

   - In XHTML, to go along with XML, you use the **id** attribute to make these links instead of the name attribute.

   - For a while you should probably include both so that your links still work on older browsers, but this will be the method used in future.

   - The **name** attribute has been deprecated.

10. **Content must be wrapped in a block-level element**

    - In XHTML Strict, when you add text to your page, you can't add it directly into the body element.

    - All text needs to be within a suitable containing **block-level** element, such as a p, a ul or a div.

Example

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0
Transitional//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
 <html xmlns="http://www.w3.org/1999/xhtml">
<head> <title>Title of document</title> </head>
<body><p>
Please Choose a Day:
<br/><br/>
<select name="day">
<option selected="selected">Monday</option>
<option>Tuesday</option>
<option>Wednesday</option>
</select> </p> </body> </html>
```