IMY 210

Practical 1: Well-formed and valid

There are over 1 billion websites on the World Wide Web today with that comes to an uncountable amount of increasing data on the web. Most of this data is in the form of HTML docs, yet HTML is too limited to manage growing amounts of info. In come XML.

When an XML document follows the basic rules provided by the XML specification and is syntax error-free, we call this **well-formed**.

A schema is a rule set governing a custom language, adding a schema is optional but crucial for consistency among a large group of designer and developers. DTD is one of two main schemas used for XML.

When an XML follows the rules provided by a DTD, we call this **valid**.

This practical will serve two purposes.

- This practical aim to familiarise you with XML syntax. Identifying/fixing errors and understanding the process in which the XML document is parsed.
- The practical also aims to introduce you to creating a basic validation schema to make sure your document is well-formed.

Provided File

- **xml.txt**: A **text file** of an XML document that describes some show's data (with errors).
- **validfile.xml**: A sample XML file that needs to be validated by your final DTD.

Tasks

Part 1: Well-formed

1. You will be required to "debug" and fix any error within the provided XML document.

2. **Rename** your file to **prac1.xml** (you will need to change the extension from txt to XML) and add a **comment** that includes your full name and student number **after** the XML declaration.

    Ex.<!—Sir Daddylonglegs (12345678) -->

3. For every error you find in the document:
   - Fix the error;
   - In a CDATA element, **not** a comment, state with rule causing the error;
     - **Refer to slides for the correct format.**

   Ex.   The code

   > *<next><next>*

   Will become…

   > *<next> </next>*
   > *CDATA [There is no closing tag]*

4. Test if **prac1.xml** is well-formed. If not, fix all the errors until the file is well-formed

Part 2: Valid

1. Create a new file, **prac1.dtd**.

2. Your newly constructed DTD schema will need to validate both your final **prac1.xml** and **validfile.xml** Remember your DTD also has rules to follow, making it **well-formed** as well.

3. The rules for the validation can be founded inside **xml.txt** and **validfile.xml** respectively. You can remove the rules (the comments) in your final submission.

4. Remember to link both the XML files to the newly constructed **DTD** file.

   Ex. <!DOCTYPE rootNode SYSTEM "prac1.dtd">

WARNING:

If you upload a **txt file** or a **not well-form** document, you will receive **zero**.
If your uploaded **DTD** does not validate the provided file, you will receive at most 50% for this practical.

Submit your work on clickUP:
- Compress **prac1.xml** and **prac1.dtd** into an archive named **P1.zip**.
- Make a final backup of all your files.
- Submit your ZIP file to the **Practical 1** assignment on the clickUP website before the end of the week.

Good luck!