**T S Saumyaa 230953132 CCE D CW3**

QUESTION:

Create a valid XML document to store data, define its structure using DTD, and apply CSS to style its elements for display in a web browser.

1. Create an XML file called books.xml that contains at least 5 <book> elements. Each <book> should have the following child elements:

\* <title> – title of the book

\* <author> – author name

\* <price> – price of the book

\* <year> – year of publication

2. Create a DTD (internal or external) that defines the structure of your XML file:

\* <books> contains one or more <book> elements.

\* <book> must contain <title>, <author>, <price>, <year> in order.

\* Each element contains text only (#PCDATA).

3. Create a CSS file called style.css to style the XML elements. The CSS should:

\* Display each <book> as a separate block with a border and padding.

\* Make the <title> bold and colored blue.

\* Make the <author> italic and colored green.

\* Style <price> in red and <year> in gray.

4. Link the CSS to the XML using the <?xml-stylesheet?> processing instruction.

5. Browser rendering: Open the XML file in a browser to verify that the CSS styles are applied correctly.

Deliverables:

\* books.xml file

\* DTD (internal or external)

\* style.css file

\* Screenshot of the browser rendering showing the styled XML

Also, Add hover effects to highlight <book> blocks when the mouse is over them.

ANS:

XML FILE:

<?xml version="1.0" encoding="UTF-8"?>

<?xml-stylesheet type="text/css" href="style.css"?>

<!DOCTYPE books [

<!ELEMENT books (book+)>

<!ELEMENT book (title, author, price, year)>

<!ELEMENT title (#PCDATA)>

<!ELEMENT author (#PCDATA)>

<!ELEMENT price (#PCDATA)>

<!ELEMENT year (#PCDATA)>

]>

<books>

<book>

<title>Introduction to Algorithms</title>

<author>Thomas H. Cormen</author>

<price>99.99</price>

<year>2009</year>

</book>

<book>

<title>Clean Code</title>

<author>Robert C. Martin</author>

<price>49.99</price>

<year>2008</year>

</book>

<book>

<title>The Pragmatic Programmer</title>

<author>Andrew Hunt</author>

<price>39.95</price>

<year>1999</year>

</book>

<book>

<title>Design Patterns</title>

<author>Erich Gamma</author>

<price>54.95</price>

<year>1994</year>

</book>

<book>

<title>Effective Java</title>

<author>Joshua Bloch</author>

<price>59.99</price>

<year>2018</year>

</book>

</books>

CSS FILE:

/\* Make each book a block with border, padding, and spacing \*/

book {

display: block;

border: 2px solid #ccc;

padding: 10px;

margin: 10px 0;

border-radius: 5px;

transition: all 0.3s ease;

}

/\* Hover effect to highlight the book \*/

book:hover {

background-color: #f0f8ff;

transform: translateY(-2px);

box-shadow: 2px 2px 10px rgba(0,0,0,0.2);

}

/\* Title: bold and blue \*/

title {

font-weight: bold;

color: blue;

display: block;

margin-bottom: 5px;

}

/\* Author: italic and green \*/

author {

font-style: italic;

color: green;

display: block;

margin-bottom: 5px;

}

/\* Price: red \*/

price {

color: red;

display: block;

margin-bottom: 5px;

}

/\* Year: gray \*/

year {

color: gray;

display: block;

}