



REPORT

All Group Members



Group Members:

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Section 1 – HTML

- Annotated screenshots of the first page of your website:

Welcome to "Bookworld" Bookshop.

Introduction

Welcome to Bookworld, your go-to destination for books of all genres!

Whether you're looking for timeless classics, thrilling bestsellers, or hidden gems, we have something for every reader.

Explore our collection and find your next great read today!

Genres

Here are genres of books you may find in our shops

- Science Fiction
- Novel
- Thriller
- Dark Fantasy
- Nonfiction
- Fiction

Locations

Here you may find nearest shop around you.

You can also click on the map to expand it or find directions

Waterstones
Unit S0121, Westfield, Ariel Way
4.6 ★★★★★ 1,075 reviews

Opening Times

| Mon-Fri | Sat | Sun | Events |
|-------------|-------------|--------|-------------|
| 09:00-18:00 | 11:00-16:00 | Closed | 10:00-15:00 |

Map with store address

Table created with store opening times

Button with link to XML page

- Annotated screenshots of the HTML codes used:

 MainPage.html - Notepad

```

File Edit Format View Help
<!DOCTYPE html> → Defines the document as HTML5
<html>
  <head>
    <title>The Bookworld!</title> → Browser tab title
    <link type="text/css" rel="stylesheet" href="styles.css"/>
  </head>
  <body>
    <h1>Welcome to "Bookworld" Bookshop.</h1>
    <div>
      <h2>Introduction</h2>
      <p>Welcome to Bookworld, your go-to destination for books of all genres!</p>
      <p>Whether you're looking for timeless classics, thrilling bestsellers, or hidden gems, we have something for every reader.</p>
      <p>Explore our collection and find your next great read today!</p>
    </div>
    <div class="horizontal-line">
    </div>
    <div class="grid-container" style="background-color: #e0e0a5">
      <div>
        <h2>Genres</h2>
        <p>Here are genres of books you may find in our shops</p>
      <div class="grid-container">
        <div>
          <ul>
            <li>Science Fiction</li>
            <li>Novel</li>
            <li>Thriller</li>
            <li>Dark Fantasy</li>
          </ul>
        </div>
        <div>
          <ul>
            <li>Nonfiction</li>
            <li>Fiction</li>
          </ul>
        </div>
      </div>
      <div>
        <h2>Locations</h2>
        <p>Here you may find nearest shop around you.</p>
        <p>You can also click on the map to expand it or find directions</p>
        <iframe src="https://www.google.com/maps/embed?pb=!1m18!1m2!1m3!1d131349.77582343362!2d-0.3436054955121332!3d51.563694144967805!2m3!1f0!2f0!3f0!3m2!1i1024!2i768!4f13.1!3m3!1m2!1s0x48760f80cab940f5%3A0xc28
      </div>
      <div style="text-align: center">
        <h2>Opening Times</h2>
        <table>
          <tr>
            <th>Mon-Fri</th>
            <th>Sat</th>
            <th>Sun</th>
            <th>Events</th>
          </tr>
          <tr>
            <td>09:00-18:00</td>
            <td>11:00-16:00</td>
            <td>Closed</td>
            <td>10:00-15:00</td>
          </tr>
        </table>
      </div>
    </div>
  </body>
</html>

```

→ Link to XML page

- Annotated screenshots of CSS codes used:

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```

    styles.css - Notepad
    File Edit Format View Help
body {
    background-color: #d87d7d; → Page background colour
    font-family: Arial
}
h1 {
    text-align: center
}
table {
    border: 1px solid; → Table border
    text-align: center;
    margin: auto;
    background-color: white;
    border-collapse: collapse;
}
th, td {
    border: 1px solid black;
    padding: 8px;
    text-align: center;
}
th {
    background-color: #afc0cf; /* Light blue */
    color: #333;
    font-weight: bold;
}
tr:nth-child(even) {
    background-color: #f5f5f5;
}
.grid-container {
    display: grid;
    grid-template-columns: 30% 70%;
}
.horizontal-line {
    width: 100%;
    height: 2px;
    background-color: black;
    margin: 10px 0;
}
.book-link {
    text-align: center;
    margin: 25px 0;
}
.book-link a {
    background-color: #333;
    color: white;
    padding: 10px 20px;
    text-decoration: none;
    border-radius: 5px;
} → Button colour
.book-link a:hover {
    background-color: #555;
}
.home-link {
    display: block;
    width: 120px;
    margin: 20px auto;
    padding: 10px;
    background-color: #333;
    color: white !important;
    text-align: center;
    text-decoration: none;
    border-radius: 5px;
    font-weight: bold;
} → "Back to Home" button in the xml page
.home-link:hover {
    background-color: #555;
}

```

Section 2 – XML

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- Annotated screenshot of the XML file:

The screenshot shows a Notepad window displaying an XML file named 'books.xml'. The XML code is as follows:

```
<?xml version="1.0"?>
<!DOCTYPE bookstore SYSTEM "books.dtd">
<?xmlstylesheet type="text/xsl" href="books.xsl"?>
<bookstore>
    <book>
        <title>1984</title>
        <author>George Orwell</author>
        <price>10.99</price>
        <stock>15</stock>
    </book>
    <book>
        <title>The Hobbit</title>
        <author>J.R.R. Tolkien</author>
        <price>14.99</price>
        <stock>8</stock>
    </book>
    <book>
        <title>Pride and Prejudice</title>
        <author>Jane Austen</author>
        <price>9.99</price>
        <stock>12</stock>
    </book>
    <book>
        <title>Atomic Habits</title>
        <author>James Clear</author>
        <price>10.00</price>
        <stock>22</stock>
    </book>
    <book>
        <title>Meditations</title>
        <author>Marcus Aurelius</author>
        <price>8.99</price>
        <stock>7</stock>
    </book>
</bookstore>
```

Annotations with arrows pointing to specific parts of the XML code:

- XML declaration: Points to the first line `<?xml version="1.0"?>`.
- DTD reference: Points to the second line `<!DOCTYPE bookstore SYSTEM "books.dtd">`.
- XSLT link: Points to the third line `<?xmlstylesheet type="text/xsl" href="books.xsl"?>`.
- ROOT ELEMENT: Contains all book entries: Points to the opening tag `<bookstore>`.

Section 3 – Screenshot of XML schema

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screenshot of XML schema which is the DTD file

books.dtd - Notepad

```
<!ELEMENT bookstore (book+)>           → Root element
<!ELEMENT book (title, author, price, stock)> → 4 child elements IN ORDER
<!ELEMENT title (#PCDATA)>
<!ELEMENT author (#PCDATA)>
<!ELEMENT price (#PCDATA)>
<!ELEMENT stock (#PCDATA)>
```

Section 4 - Transformation

Annotated screenshots of the XSL/t file that transforms the data in the XML file to an XHTML file:

Annotated screenshot of the XSL/t file:

books.xsl - Notepad

```
<xsl:stylesheet version="1.0" xmlns:xsl="http://www.w3.org/1999/XSL/Transform">
  <xsl:template match="/">
    <html>
      <head>
        <title>Available Books</title>
        <link type="text/css" rel="stylesheet" href="styles.css"/>
      </head>
      <body>
        <h1>Available Books</h1> 
        <table>
          <tr>
            <th>Title</th>
            <th>Author</th>
            <th>Price</th>
            <th>Stock</th>
          </tr>
          <xsl:for-each select="bookstore/book">
            <tr>
              <td><xsl:value-of select="title"/></td>
              <td><xsl:value-of select="author"/></td>
              <td>$<xsl:value-of select="price"/></td>
              <td><xsl:value-of select="stock"/></td>
            </tr>
          </xsl:for-each>
        </table>
        <a href="MainPage.html" class="home-link"> Back to Home </a>
      </body>
    </html>
  </xsl:template>
</xsl:stylesheet>
```

XSLT Stylesheet Declaration

MAIN TEMPLATE - Matches the root node and Processes the entire XML document

HTML OUTPUT STRUCTURE

Return link

Table with content of books, matches table structure of main page

b

Annotated screenshot of program page:



Background colour is the same as main page

Button that takes user back to main page

Section 5 – Author Contributions

For this project, we divided the work into two key components: the program page and the main page. Mohssine developed the program page, creating the XML data structure (books.xml), designing the XSLT transformation (books.xsl), and implementing the DTD schema (books.dtd) for validation. Valerii handled the main page, building the HTML structure (MainPage.html) and styling it with CSS (styles.css). After completing our individual sections, we integrated both pages by linking them together and consolidated all styling into the shared styles.css file removing redundant CSS from the XSLT file to ensure visual consistency across the entire website.

Mohssine Deflaoui Harrata(M00930038) is the one who will submit all work on behalf of Valerii Radjabov (M00946003)