HTML CODE :

<html>

  <head>

    <title>ShopSmart Products</title>

  </head>

  <body>

    <h1>ShopSmart Product List</h1>

    <table border="1">

      <tr>

        <th>ID</th>

        <th>Name</th>

        <th>Price</th>

        <th>Quantity</th>

        <th>Description</th>

      </tr>

      <tr>

        <td>1</td>

        <td>Hoodies</td>

        <td>350$</td>

        <td>10</td>

        <td>Naruto</td>

      </tr>

      <tr>

        <td>2</td>

        <td>T-Shirts</td>

        <td>150$</td>

        <td>50</td>

        <td>One Piece</td>

      </tr>

      <tr>

        <td>3</td>

        <td>Pants</td>

        <td>550$</td>

        <td>60</td>

        <td>Haikyuu</td>

      </tr>

      <tr>

        <td>4</td>

        <td>Shirts</td>

        <td>50$</td>

        <td>120</td>

        <td>Jujutsu Kaisen</td>

      </tr>

      <tr>

        <td>5</td>

        <td>Kurtas</td>

        <td>250$</td>

        <td>560</td>

        <td>Tomen</td>

      </tr>

    </table>

  </body>

</html>

XML CODE :

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

<?xml-model href="" type="application/xml" schematypens="<http://www.w3.org/2001/XMLSchema>"?>

<?xml-model href="" type="application/xml-dtd"?>

<shopsmart>

<products>

    <product>

        <id>001</id>

        <Name>Hoodies</Name>

        <price>350$</price>

        <quantity>10</quantity>

        <Description>Naruto</Description>

     </product>

     <product>

        <id>002</id>

        <Name>T-Shirts</Name>

        <price>150$</price>

        <quantity>50</quantity>

        <Description>One Piece</Description>

     </product>

     <product>

        <id>003</id>

        <Name>Pants</Name>

        <price>550$</price>

        <quantity>60</quantity>

        <Description>Haikyuu</Description>

     </product>

     <product>

        <id>004</id>

        <Name>Shirts</Name>

        <price>50$</price>

        <quantity>120</quantity>

        <Description>Jujutsu Kaisen</Description>

     </product>

     <product>

        <id>005</id>

        <Name>Kurtas</Name>

        <price>250$</price>

        <quantity>560</quantity>

        <Description>Tokyo Revengers</Description>

     </product>

</products>

</shopsmart>

XSD CODE :

<xs:schema attributeFormDefault="unqualified" elementFormDefault="qualified" xmlns:xs="<http://www.w3.org/2001/XMLSchema>">

  <xs:element name="animemerch">

    <xs:complexType>

      <xs:sequence>

        <xs:element name="products">

          <xs:complexType>

            <xs:sequence>

              <xs:element name="product" maxOccurs="unbounded" minOccurs="0">

                <xs:complexType>

                  <xs:sequence>

                    <xs:element type="xs:byte" name="id"/>

                    <xs:element type="xs:string" name="Name"/>

                    <xs:element type="xs:string" name="price"/>

                    <xs:element type="xs:short" name="quantity"/>

                    <xs:element type="xs:string" name="Description"/>

                  </xs:sequence>

                </xs:complexType>

              </xs:element>

            </xs:sequence>

          </xs:complexType>

        </xs:element>

      </xs:sequence>

    </xs:complexType>

  </xs:element>

</xs:schema>

XSL CODE :

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

<xsl:stylesheet version="1.0" xmlns:xsl="<http://www.w3.org/1999/XSL/Transform>">

 <xsl:template match="/AnimeMerch">

    <html>

      <head>

        <title>AnimeMerch Products</title>

      </head>

      <body>

        <h1>AnimeMerch Product List</h1>

        <table border="1">

          <tr>

            <th>ID</th>

            <th>Name</th>

            <th>Price</th>

            <th>Quantity</th>

            <th>Description</th>

          </tr>

          <xsl:for-each select="AnimeMerch/products/product">

            <tr>

              <td><xsl:value-of select="id"/></td>

              <td><xsl:value-of select="Name"/></td>

              <td><xsl:value-of select="price"/></td>

              <td><xsl:value-of select="quantity"/></td>

              <td><xsl:value-of select="Description"/></td>

            </tr>

          </xsl:for-each>

        </table>

      </body>

    </html>

  </xsl:template>

</xsl:stylesheet>

PYTHON CODE :

from lxml import etree

# Load XML

xml\_tree = etree.parse("lab5.xml")

# Load XSL

xsl\_transform = etree.XSLT(etree.parse("lab5.2.xsl"))

# Apply XSLT transformation

html\_tree = xsl\_transform(xml\_tree)

# Write transformed HTML to a file

with open("lab5.3.html") as output\_file:

    output\_file.write(etree.tostring(html\_tree, pretty\_print=True))