

Internet Technology and Applications Practicals

Assignment 2

Krunal Rank
U18CO081

1.

emails.xml:

```
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE emails SYSTEM "../emails.dtd">
<!-- <emails
xmlns="http://www.w3schools.com/"
xmlns:xsi="http://www.w3.org/2001/XMLSchema"
xsi:schemaLocation="http://www.w3schools.com emails.xsd"> -->
<emails>
  <email>
    <to>Vimal</to>
    <from>Sonoo</from>
    <heading>Hello</heading>
    <body>Hello brother, how are you!</body>
  </email>
  <email>
    <to>Peter</to>
    <from>Jack</from>
    <heading>Birth day wish</heading>
    <body>Happy birth day Tom!</body>
  </email>
</emails>
```

emails.dtd:

```
<!ELEMENT emails (email+)>
<!ELEMENT email (to,from,heading,body)>
<!ELEMENT to (#PCDATA)>
<!ELEMENT from (#PCDATA)>
<!ELEMENT heading (#PCDATA)>
<!ELEMENT body (#PCDATA)>
```

emails.xsd:

```
<?xml version="1.0" encoding="UTF-8" ?>
<xs:schema targetNamespace="http://www.w3schools.com/"
elementFormDefault="qualified"
xmlns="http://www.w3schools.com emails.xsd"
xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:element name="emails">
    <xs:complexType>
      <xs:sequence>
        <xs:element name="email" minOccurs="1">
```

```
        <xs:complexType>
            <xs:sequence>
                <xs:element name="to" type="xs:string" minOccurs="1" />
                <xs:element name="from" type="xs:string" minOccurs="1"
maxOccurs="1" />
                <xs:element name="heading" type="xs:string" minOccurs="1"
maxOccurs="1" />
                <xs:element name="body" type="xs:string" minOccurs="1"
maxOccurs="1" />
            </xs:sequence>
        </xs:complexType>
    </xs:element>
</xs:sequence>
</xs:complexType>
</xs:element>
</xs:schema>
```

2.

bookstore.xml:

```
<?xml version="1.0" encoding="UTF-8"?>
<!-- <!DOCTYPE bookstore SYSTEM "../bookstore.dtd" -->
<bookstore xmlns="http://www.w3schools.com/" xmlns:xsi="http://www.w3.org/2001/XMLSchema"
xsi:schemaLocation="http://www.w3schools.com bookstore.xsd">

    <book category="COOKING" id="b1">
        <title lang="en">Everyday Italian</title>
        <author>Giada De Laurentiis</author>
        <year>2005</year>
        <price>30.00</price>
    </book>
    <book category="CHILDREN" id="b2">
        <title lang="en">Harry Potter</title>
        <author>J K. Rowling</author>
        <year>2005</year>
        <price>29.99</price>
    </book>
    <book category="WEB" id="b3">
        <title lang="en">Learning XML</title>
        <author>Erik T. Ray</author>
        <year>2003</year>
        <price>39.95</price>
    </book>
</bookstore>
```

bookstore.dtd:

```
<!ELEMENT bookstore (book+)>
<!ELEMENT book (title,author,year,price) >
<!ELEMENT title (#PCDATA)>
<!ELEMENT author (#PCDATA)>
<!ELEMENT year (#PCDATA)>
<!ELEMENT price (#PCDATA)>

<!ATTLIST book category (CHILDREN|WEB|COOKING) "GENERAL">
<!ATTLIST book id ID #IMPLIED >
<!ATTLIST title lang (hi|en|sa|gu|ma) "en">
```

bookstore.xsd:

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

<xs:schema targetNamespace="http://www.w3schools.com/" elementFormDefault="qualified"
xmlns="http://www.w3schools.com bookstore.xsd"
xmlns:xs="http://www.w3.org/2001/XMLSchema">
```

```

<xs:element name="bookstore">
  <xs:complexType>
    <xs:sequence>
      <xs:element name="book" minOccurs="1" maxOccurs="100">
        <xs:complexType>
          <xs:sequence>
            <xs:element name="title">
              <xs:complexType>
                <xs:attribute name="lang" type="xs:language"
default="en"></xs:attribute>
              </xs:complexType>
            </xs:element>
            <xs:element name="author">
              <xs:simpleType>
                <xs:restriction base="xs:string">
                  <xs:pattern value="[A-Z][a-zA-Z ]*"></xs:pattern>
                </xs:restriction>
              </xs:simpleType>
            </xs:element>
            <xs:element name="year">
              <xs:simpleType>
                <xs:restriction base="xs:integer">
                  <xs:minInclusive value="1900"></xs:minInclusive>
                  <xs:maxInclusive value="2021"></xs:maxInclusive>
                </xs:restriction>
              </xs:simpleType>
            </xs:element>
            <xs:element name="price" type="xs:decimal" />
          </xs:sequence>
          <xs:attribute name="id" type="xs:ID" use="required" />
          <xs:attribute name="category" default="GENERAL">
            <xs:simpleType>
              <xs:restriction base="xs:string">
                <xs:enumeration value="CHILDREN" />
                <xs:enumeration value="WEB" />
                <xs:enumeration value="COOKING" />
                <xs:enumeration value="GENERAL" />
              </xs:restriction>
            </xs:simpleType>
          </xs:attribute>
        </xs:complexType>
      </xs:element>
    </xs:sequence>
  </xs:complexType>

```

```
</xs:element>
```

```
</xs:schema>
```