Exercises

Exercise 1

Declare the elements used in the following XML document, `movie.xml`, in an XML schema:

```
<?xml version="1.0"?>
<MOVIEDETAILS>
   <MOVIE>
      <TITLE>The Sixth Sense</TITLE>
      <MOVIEID>M876</MOVIEID>
      <DIRNAME>M Night Shyamalan</DIRNAME>
      <CAST>Bruce Willis, Haley Joel Osment</CAST>
      <YEAROFRELEASE>1999</YEAROFRELEASE>
   </MOVIE>
</MOVIEDETAILS>
```

The `movie ID` should begin with the letter M, followed by three digits.

(Note: The `movie.xml` file will be provided to you.)

Exercise 2

The following XML schema, `reservation.xsd` contains the definition for the structure of an XML file that contains information about airline reservations. However, the schema contains errors. Rectify the errors in the schema, and create an XML file that conforms to the rules specified in this document.

```
<xsd:element   name="RESERVATION"    type="res"/>
   </xsd:sequence>
   </xsd:complexType>
   <xsd:complexType name="res">
      <xsd:sequence>
         <xsd:element   name="FROM"    type="fromdef"/>
         <xsd:element   name="TO"    type="fromdef"/>
         <xsd:element   name="FARE"    type="xsd:positiveInteger"/>
         <xsd:element   name="DATE"    type="xsd:date"/>
         <xsd:element   name="CLASS"   type="classdef"/>
      </xsd:sequence>
   </xsd:complexType>
   <xsd:simpleType name="fromdef">
      <xsd:restriction base="xsd:string">
```

```
         <xsd:pattern
value="(NY{1}|Chicago{1}|Miami{1}|Pittsburgh{1})"/>
      </xsd:restriction>
   </xsd:simpleType>
   <xsd:simpleType name="classdef">
      <xsd:restriction base="xsd:string">
         <xsd:pattern value="(First{1}|Executive{1}|Economy{1})"/>
      </xsd:restriction>
   </xsd:simpleType>
</xsd:schema>
```

Exercise 3

CyberShoppe has an e-commerce site to promote and market its products. The site also offers e-mail services to its online customers. You have been asked to develop an XML application that stores the account information of all customers. Customer account information includes the e-mail and address book details.

The e-mail details include the following Inbox details of each account holder, as shown in the following table.

Category	***Values***
Mail type	*Mail or News*
From	*Sender's mail ID*
Subject	*Subject of the mail*
Date of receipt	*Date on which the mail is received*
Size	*Size of the mail in bytes*
Priority	*High, Low, or Medium*

Inbox Details

The address book stores details, such as name, nickname, and e-mail address.

You have to create a schema and an XML document for this task.