Introduction to XML

Activity

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Activity Overview

These Activity practices various ways of using XML documents to create, validate and retrieve data.

1.Introduction

The tasks below demonstrate how to use XML documents to create, validate and retrieve data.

Task 1

Write the data contained in the document patients.xml in the form of records for the PATIENT form (ignore id elements with attribute root="2.16.840.1.113883.14.6")

Task 2

Given the XML Schema in patients_schema.xml, which of the included xml instance is not valid and why?

Task 3 (optional)

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

<Patients>

    <patientRole>

        <id extension="996-756-495" root="2.16.840.1.113883.19.5"/>

        <id extension="775-756-495" root="2.16.840.1.113883.14.6"/>

        <patient>

            <name>

                <given>Henry</given>

                <family>Levin</family>

            </name>

            <administrativeGenderCode code="M" codeSystem="2.16.840.1.113883.5.1"/>

            <birthTime value="19320924"/>

        </patient>

    <providerOrganization>

        <id root="2.16.840.1.113883.19.5"/>

        <name>Good Health Clinic</name>
```

```xml
</providerOrganization>

<admissionTime value="2012030111:32"/>

</patientRole>

<patientRole>

    <id extension="65" root="2.16.840.1.113883.3.933"/>

     <patient>

        <name>

            <given>Paul</given>

            <family>Pappel</family>

        </name>

         <administrativeGenderCode code="M" codeSystem="2.16.840.1.113883.5.1"/>

        <birthTime value="19551217"/>

        </patient>

   <providerOrganization>

     <id extension="84756-11241-283-OPTD-3322" root="1.2.3.4.5.6.1.8.9.0"/>

        <name> Dr.med. Hans Topp-Glucklich</name>

   </providerOrganization>

     <admissionTime value="201201152200"/>

   </patientRole>

<patientRole>

    <id extension="800001" root="2.16.840.1.113883.19.5"/>

        <patient>

            <name>

                <given>JEANNE</given>

                <family>PETIT</family>

            </name>

            <administrativeGenderCode code="F" codeSystem="2.16.840.1.113883.5.1"/>

             <birthTime value="19480105"/>
```

```
        </patient>

        <providerOrganization>

            <id root="2.16.840.1.113883.19.5"/>

            <name>Good Health Clinic</name>

        </providerOrganization>

    <admissionTime value="20120101T22:00"/>

    </patientRole>

</Patients>
```

Write the XPath expressions which select the following:

a) Family names for the male patients (gender code="M"):

b) Patient element nodes of the patients that have two ids:

c) Number of patients admitted to "Good Health Clinic" in January 2012:

d) Given and family name of the patient born on 17 Dec 1955.

Activity Summary

If you have successfully solved the three tasks above, you have a good understanding of how to use XML for data creation and manipulation!