**XML Schema Unit 5 examples**

1. **Beginning a Simple Type XML Schema**

<?xml version="1.0"?>

<wonder>

<name>Colossus of Rhodes</name>

<location>Greece</location>

<height>107</height>

</wonder>

**Simple Types o**nly contain text

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

<XS:element name="location" type="xs:string"/>

<XS:element name="height" type="xs:integer"/>

1. **Connecting the Schema file with the XML file**

<?xml version="1.0"?>

<xs:wonder xmlns:xsi=<http://www.w3.org/2001/XMLSchema-instance> xsi:noNamespaceSchemaLocation="09-06.xsd">

<name>Colossus of Rhodes</name>

<location>Greece</location>

<height>107</height>

</wonder>

1. **What are Data Types?**

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

<xs:element name="height" type="**xs:integer**"/>

<xs:element name="last\_modified" type="**xs:date**"/>

<xs:element name="time\_painted" type="**xs:time**"/>

1. **Predefining an Element’s Content**

***Fixed* Value**

<xs:element name="how\_destroyed" type="xs:string" fixed="fire"/>

<how\_destroyed>fire</how\_destroyed> *VALID*

<how\_destroyed></how\_destroyed>  *VALID*

<how\_destroyed>snow storm</how\_destroyed> *NOT VALID!*

***Default* Value**

<xs:element name="how\_destroyed" type="xs:string" default="fire"/>

<how\_destroyed></how\_destroyed> *VALID*

<how\_destroyed>fire</how\_destroyed> *VALID*

<how\_destroyed>snow storm</how\_destroyed> *VALID*

1. **Deriving Custom Simple Types**

<xs:element name="story">

<xs:simpleType>

**<xs:restriction base="xs:string">**

**<xs:length value="1024"/>**

**</xs:restriction>**

</xs:simpleType>

</xs:element>

1. **Deriving Named Custom Types**

<xs:simpleType name="story\_type">

<xs:restriction base="xs:string">

<xs:length value="1024"/>

</xs:restriction>

</xs:simpleType>

<xs:element name="story" type="story\_type"/>

<xs:element name="summary" type="story\_type"/>

<xs:element name="another\_story" type="story\_type"/>

1. **Specifying a Set of Acceptable Values using *Enumeration***

<xs:element name="wonder\_name">

<xs:simpleType>

<xs:restriction base="xs:string">

<xs:enumeration value="Colossus of Rhodes"/>

<xs:enumeration value="Great Pyramid of Giza"/>

<xs:enumeration value="Hanging Gardens of Babylon"/>

<xs:enumeration value="Statue of Zeus at Olympia"/>

<xs:enumeration value="Temple of Artemis at

Ephesus"/>

<xs:enumeration value="Mausoleum at Halicarnassus"/>

<xs:enumeration value="Lighthouse of Alexandria"/>

</xs:restriction>

</xs:simpleType>

</xs:element>

1. **Specifying a Set of Acceptable Values using *Length***

<xs:element name="social\_security">

<xs:simpleType>

<xs:restriction base="xs:string">

<xs:length value="11"/>

</xs:restriction>

</xs:simpleType>

</xs:element>

1. **Specifying a Pattern for an Element using *Regular Expression or Patterns***

<xs:element name="social\_security">

<xs:simpleType>

<xs:restriction base="xs:string">

<xs:pattern value=”[0-9]{3}-[0-9]{2}-[0-9]{4}”/>

</xs:restriction>

</xs:simpleType>

</xs:element>

**Example to help you with your exercise:**

**Setting up your Schema Document (Complex Type)**

<?xml version="1.0"?>

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

<xs:element name="wonder">

<xs:complexType>

<xs:sequence>

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

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

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

</xs:sequence>

</xs:complexType>

</xs:element>

</xs:schema>