

XML Schema

Example from

https://www.w3schools.com/xml/schema_example.asp

An XML Document

```
<shiporder orderid="889923"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xsi:noNamespaceSchemaLocation="shiporder.xsd">
  <orderperson>John Smith</orderperson>
  <shipto>
    <name>Ola Nordmann</name>   <address>Langgt 23</address>
    <city>4000 Stavanger</city>   <country>Norway</country>
  </shipto>
  <item>
    <title>Empire Burlesque</title>   <note>Special Edition</note>
    <quantity>1</quantity>.   <price>10.90</price>
  </item>
  <item>
    <title>Hide your heart</title>   <quantity>1</quantity>   <price>9.90</price>
  </item>
</shiporder>
```

Ship Orders Schema Document

```
<?xml version="1.0" encoding="UTF-8" ?>
<xs:schema xmlns:xs=
    http://www.w3.org/2001/XMLSchema>
    <!-- definition of simple elements --> ...
    <!-- definition of attributes -->
    <xs:attribute name="orderid"
                                   type="xs:string"/>
    <!-- definition of complex elements --> ...
</xs:schema>
```

Simple Elements

```
<!-- definition of simple elements -->  
<xs:element name="orderperson" type="xs:string"/>  
<xs:element name="name" type="xs:string"/>  
<xs:element name="address" type="xs:string"/>  
<xs:element name="city" type="xs:string"/>  
<xs:element name="country" type="xs:string"/>  
<xs:element name="title" type="xs:string"/>  
<xs:element name="note" type="xs:string"/>  
<xs:element name="quantity" type="xs:positiveInteger"/>  
<xs:element name="price" type="xs:decimal"/>
```

Complex Element: Ship To

<!-- definition of complex elements -->

<xs:element name="shipto">

 <xs:complexType>

 <xs:sequence>

 <xs:element ref="name"/>

 <xs:element ref="address"/>

 <xs:element ref="city"/>

 <xs:element ref="country"/>

 </xs:sequence>

 </xs:complexType>

</xs:element>

Complex Element: Item

```
<xs:element name="item">
  <xs:complexType>
    <xs:sequence>
      <xs:element ref="title"/>
      <xs:element ref="note" minOccurs="0"/>
      <xs:element ref="quantity"/>
      <xs:element ref="price"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

Complex Element: Ship Order

```
<xs:element name="shiporder">
  <xs:complexType>
    <xs:sequence>
      <xs:element ref="orderperson"/>
      <xs:element ref="shipto"/>
      <xs:element ref="item" maxOccurs="unbounded"/>
    </xs:sequence>
    <xs:attribute ref="orderid" use="required"/>
  </xs:complexType>
</xs:element>
```