

# XML & JSON

# העבר את הטקסט הבא מ JSON ל XML

```
{
  "buying":{
    "client_f_name": "Meni",
    "client_l_name": "Cohen",
    "date": "2017-5-17",
    "items":[{
      "type": "apple",
      "amount": 3,
      "price": 4.5,
      "total_price": 13.5
    },
    {
      "type": "banana",
      "amount": 7,
      "price": 9,
      "total_price": 63
    },
    ],
    "Total_buying_price": 86.5
  }
}
```

# מה השגיאות בXML הבא:

```
<movies>
  <name>spiderman</name>
  <year>
  <actors>
    <actor>
      <name>yael
    </actor>
  </name>
  </actors>
<stars> 4</stars>
  <comments />

</movies>
```

# האם XML הוא valid xml?

xsd	xml
<pre>&lt;?xml version = "1.0"?&gt; &lt;xs:schema xmlns:xs = http://www.w3.org/2001/XMLSchema" targetNamespace = "http://www.tutorialspoint.com" xmlns = "http://www.tutorialspoint.com" elementFormDefault = "qualified"&gt; &lt;xs:element name = 'class'&gt; &lt;xs:complexType&gt; &lt;xs:sequence&gt;     &lt;xs:element name = 'student' type = 'StudentType' minOccurs = '0' maxOccurs = 'unbounded' /&gt; &lt;/xs:sequence&gt; &lt;/xs:complexType&gt; &lt;/xs:element&gt; &lt;xs:complexType name = "StudentType"&gt; &lt;xs:sequence&gt;     &lt;xs:element name = "firstname" type = "xs:string"/&gt;     &lt;xs:element name = "lastname" type = "xs:string"/&gt;     &lt;xs:element name = "nickname" type = "xs:string"/&gt;     &lt;xs:element name = "marks" type = "xs:positiveInteger"/&gt; &lt;/xs:sequence&gt; &lt;xs:attribute name = 'rollno' type = 'xs:positiveInteger'/&gt; &lt;/xs:complexType&gt; &lt;/xs:schema&gt;</pre>	<pre>&lt;?xml version = "1.0"?&gt; &lt;class &gt; &lt;student rollno = 393&gt;     &lt;firstname&gt;Dinkar&lt;/firstname&gt;     &lt;nickname&gt;Dinkar&lt;/nickname&gt;     &lt;marks&gt;85&lt;/marks&gt; &lt;/student&gt; &lt;student rollno = -493&gt;     &lt;firstname&gt;Vaneet&lt;/firstname&gt;     &lt;lastname&gt;Gupta&lt;/lastname&gt;     &lt;nickname&gt;Vinni&lt;/nickname&gt;     &lt;marks&gt;95&lt;/marks&gt; &lt;/student&gt; &lt;student rollno = "593"&gt;     &lt;firstname&gt;Jasvir&lt;/firstname&gt;     &lt;lastname&gt;Singh&lt;/lastname&gt;     &lt;nickname&gt;852&lt;/nickname&gt;     &lt;marks&gt;90&lt;/marks&gt; &lt;/student&gt; &lt;/class&gt;</pre>

## רשום XSD ל XML הבא:

```
<shiporder orderid="889923">
  <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>
```

# תשובה:

- ```
<?xml version="1.0" encoding="UTF-8" ?>
<xs:schema xmlns:xs="http://www.w3.org/2001/XMLSchema">

  <xs:element name="shiporder">
    <xs:complexType>
      <xs:sequence>
        <xs:element name="orderperson" type="xs:string"/>
        <xs:element name="shipto">
          <xs:complexType>
            <xs:sequence>
              <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:sequence>
          </xs:complexType>
        </xs:element>
        <xs:element name="item" maxOccurs="unbounded">
          <xs:complexType>
            <xs:sequence>
              <xs:element name="title" type="xs:string"/>
              <xs:element name="note" type="xs:string" minOccurs="0"/>
              <xs:element name="quantity" type="xs:positiveInteger"/>
              <xs:element name="price" type="xs:decimal"/>
            </xs:sequence>
          </xs:complexType>
        </xs:element>
      </xs:sequence>
      <xs:attribute name="orderid" type="xs:string" use="required"/>
    </xs:complexType>
  </xs:element>

</xs:schema>
```