**XSLT Assignment**

**Customers Payload:**

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

<customers>

      <customer>

            <firstName>Akshay</firstName>

            <lastName>Goud</lastName>

            <middleName>Manchala</middleName>

            <email>akshay123@gmail.com</email>

            <phoneNumber>9999999999</phoneNumber>

<ssn>48902</ssn>

            <address>

                  <city>ERIE</city>

                  <state>PA</state>

                  <addressLines>7651 HAMOT RD</addressLines>

                  <addressLines2/>

                  <postalCode>16509</postalCode>

            </address>

      </customer>

      <customer>

            <firstName>Sri</firstName>

            <lastName>Charan</lastName>

            <middleName>Koneru</middleName>

            <email>charan456@gmail.com</email>

            <phoneNumber>9999999999</phoneNumber>

<ssn>90065</ssn>

            <address>

                  <city>ERIE</city>

                  <state>PA</state>

                  <addressLines>7651 HAMOT RD</addressLines>

                  <addressLines2/>

                  <postalCode>16509</postalCode>

            </address>

      </customer>

      <customer>

            <firstName>Aishwarya</firstName>

            <lastName>Shetty</lastName>

            <middleName></middleName>

            <email>aishwarya789@gmail.com</email>

            <phoneNumber>9999999999</phoneNumber>

<ssn>00642</ssn>

            <address>

                  <city>ERIE</city>

                  <state>PA</state>

                  <addressLines>7651 HAMOT RD</addressLines>

                  <addressLines2/>

                  <postalCode>16509</postalCode>

            </address>

      </customer>

</customers>

**Error Payload:**

If the payload is missing any of the following, below attached payload should be your response.

<Fault>

<faultCode>500</faultCode>

<faultString>Internal Server Error</faultString>

<detail>

<ErrorInfo>

<errorMessageType>Fatal</errorMessageType>

<errorCode>7000</errorCode>

<errorMessageText>XML Failed in Processing</errorMessageText>

<errorState>Validation Error</errorState>

</ErrorInfo>

</detail>

</Fault>

1. **The namespaces to be added to all the elements of customer payload.**

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

**<xsl:stylesheet version**=*"1.0"* **xmlns:xsl**=*"http://www.w3.org/1999/XSL/Transform"***>**

**<xsl:template match**=*"\*"***>**

**<xsl:element name**=*"cus:{name()}"* **namespace**=*"http://temp.org/"***>**

**<xsl:apply-templates />**

**</xsl:element>**

**</xsl:template>**

**</xsl:stylesheet>**

1. **Combine the first name, last name, middle name into one tag full name and remove them.**

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

**<xsl:stylesheet version**=*"1.0"* **xmlns:xsl**=*"http://www.w3.org/1999/XSL/Transform"***>**

**<xsl:template match**=*"customers/customer"***>**

**<xsl:copy>**

**<xsl:element name**=*"fullName"***>**

**<xsl:value-of select**=*"concat(firstName,' ', middleName,' ', lastName )"***/>**

**</xsl:element>**

**<xsl:apply-templates/>**

**</xsl:copy>**

**</xsl:template>**

**<xsl:template match**=*"firstName|middleName|lastName"* **/>**

**<xsl:template match**=*"@\*|node()"***>**

**<xsl:copy>**

**<xsl:apply-templates/>**

**</xsl:copy>**

**</xsl:template>**

**</xsl:stylesheet>**

1. **Add unique attribute customer Id to each of the customer.**

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

**<xsl:stylesheet version**=*"1.0"* **xmlns:xsl**=*"http://www.w3.org/1999/XSL/Transform"***>**

**<xsl:template match**=*"customers/customer"***>**

**<xsl:copy>**

**<xsl:attribute name**=*"cid"***>**

**<xsl:value-of select**=*"generate-id()"***/>**

**</xsl:attribute>**

**<xsl:apply-templates/>**

**</xsl:copy>**

**</xsl:template>**

**<xsl:template match**=*"\*"***>**

**<xsl:copy>**

**<xsl:apply-templates />**

**</xsl:copy>**

**</xsl:template>**

**</xsl:stylesheet>**

1. **Add the Field SSN Number for each customer.**

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

**<xsl:stylesheet version**=*"1.0"* **xmlns:xsl**=*"http://www.w3.org/1999/XSL/Transform"***>**

**<xsl:template match**=*"customers/customer"***>**

**<xsl:copy>**

**<xsl:element name**=*"ssn"***>**

**<xsl:value-of select**=*"generate-id()"***/>**

**</xsl:element>**

**<xsl:apply-templates/>**

**</xsl:copy>**

**</xsl:template>**

**<xsl:template match**=*"\*"***>**

**<xsl:copy>**

**<xsl:apply-templates />**

**</xsl:copy>**

**</xsl:template>**

**</xsl:stylesheet>**

1. **Do the following validations for the payload.**
2. **Phone Number Length should be 10 digits**

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

**<xsl:stylesheet version**=*"1.0"* **xmlns:xsl**=*"http://www.w3.org/1999/XSL/Transform"***>**

**<xsl:template match**=*"/"***>**

**<xsl:for-each select**=*"customers/customer"***>**

**<xsl:choose>**

**<xsl:when test**=*"string-length(phoneNumber)!=10 or not(phoneNumber)"***>**

<Fault>

<faultCode>500</faultCode>

<faultString>Internal Server Error</faultString>

<detail>

<ErrorInfo>

<errorMessageType>Fatal</errorMessageType>

<errorCode>7000</errorCode>

<errorMessageText>XML Failed in Processing</errorMessageText>

<errorState>Validation Error</errorState>

</ErrorInfo>

</detail>

</Fault>

**<xsl:message terminate**=*"yes"***></xsl:message>**

**</xsl:when>**

**</xsl:choose>**

**</xsl:for-each>**

**<xsl:apply-templates/>**

**</xsl:template>**

**<xsl:template match**=*"\*"***>**

**<xsl:copy>**

**<xsl:apply-templates/>**

**</xsl:copy>**

**</xsl:template>**

**</xsl:stylesheet>**

1. **FirstName cannot be empty**

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

**<xsl:stylesheet version**=*"1.0"*

**xmlns:xsl**=*"http://www.w3.org/1999/XSL/Transform"***>**

**<xsl:template match**=*"/"***>**

**<xsl:for-each select**=*"customers/customer"***>**

**<xsl:choose>**

**<xsl:when test**=*"firstName='' or not(firstName)"***>**

<Fault>

<faultCode>500</faultCode>

<faultString>Internal Server Error</faultString>

<detail>

<ErrorInfo>

<errorMessageType>Fatal</errorMessageType>

<errorCode>7000</errorCode>

<errorMessageText>XML Failed in Processing</errorMessageText>

<errorState>Validation Error</errorState>

</ErrorInfo>

</detail>

</Fault>

**<xsl:message terminate**=*"yes"***></xsl:message>**

**</xsl:when>**

**</xsl:choose>**

**</xsl:for-each>**

**<xsl:apply-templates/>**

**</xsl:template>**

**<xsl:template match**=*"\*"***>**

**<xsl:copy>**

**<xsl:apply-templates/>**

**</xsl:copy>**

**</xsl:template>**

**</xsl:stylesheet>**

1. **Address should always contain zip code.**

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

**<xsl:stylesheet version**=*"1.0"* **xmlns:xsl**=*"http://www.w3.org/1999/XSL/Transform"***>**

**<xsl:template match**=*"/"***>**

**<xsl:for-each select**=*"customers/customer/address"***>**

**<xsl:choose>**

**<xsl:when test**=*"string-length(postalCode)!=5 or not(postalCode)"***>**

<Fault>

<faultCode>500</faultCode>

<faultString>Internal Server Error</faultString>

<detail>

<ErrorInfo>

<errorMessageType>Fatal</errorMessageType>

<errorCode>7000</errorCode>

<errorMessageText>XML Failed in Processing</errorMessageText>

<errorState>Validation Error</errorState>

</ErrorInfo>

</detail>

</Fault>

**<xsl:message terminate**=*"yes"***></xsl:message>**

**</xsl:when>**

**</xsl:choose>**

**</xsl:for-each>**

**<xsl:apply-templates/>**

**</xsl:template>**

**<xsl:template match**=*"\*"***>**

**<xsl:copy>**

**<xsl:apply-templates/>**

**</xsl:copy>**

**</xsl:template>**

**</xsl:stylesheet>**

1. **SSN Number should not be empty.**

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

**<xsl:stylesheet version**=*"1.0"* **xmlns:xsl**=*"http://www.w3.org/1999/XSL/Transform"***>**

**<xsl:template match**=*"/"***>**

**<xsl:for-each select**=*"customers/customer"***>**

**<xsl:choose>**

**<xsl:when test**=*"ssn='' or not(ssn)"***>**

<Fault>

<faultCode>500</faultCode>

<faultString>Internal Server Error</faultString>

<detail>

<ErrorInfo>

<errorMessageType>Fatal</errorMessageType>

<errorCode>7000</errorCode>

<errorMessageText>XML Failed in Processing</errorMessageText>

<errorState>Validation Error</errorState>

</ErrorInfo>

</detail>

</Fault>

**<xsl:message terminate**=*"yes"***></xsl:message>**

**</xsl:when>**

**</xsl:choose>**

**</xsl:for-each>**

**<xsl:apply-templates/>**

**</xsl:template>**

**<xsl:template match**=*"\*"***>**

**<xsl:copy>**

**<xsl:apply-templates/>**

**</xsl:copy>**

**</xsl:template>**

**</xsl:stylesheet>**

1. **Transform the XML into jsonx.**

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

**<xsl:stylesheet version**=*"1.0"* **xmlns:xsl**=*"http://www.w3.org/1999/XSL/Transform"*

**xmlns:json**=*"http://www.ibm.com/xmlns/prod/2009/jsonx"***>**

**<xsl:template match**=*"/"***>**

<!-- Transform the XML into jsonx. -->

<json:object>

<json:object name="customers">

<json:array name="customer">

**<xsl:for-each select**=*"customers/customer"***>**

<json:object>

<json:string name="firstName">

**<xsl:value-of select**=*"firstName"***/>**

</json:string>

<json:string name="lastName">

**<xsl:value-of select**=*"lastName"***/>**

</json:string>

<json:string name="middleName">

**<xsl:value-of select**=*"middleName"***/>**

</json:string>

<json:string name="email">

**<xsl:value-of select**=*"email"***/>**

</json:string>

<json:number name="phoneNumber">

**<xsl:value-of select**=*"phoneNumber"***/>**

</json:number>

<json:object name="address">

<json:string name="city">

**<xsl:value-of select**=*"address/city"***/>**

</json:string>

<json:string name="state">

**<xsl:value-of select**=*"address/state"***/>**

</json:string>

<json:string name="addressLines">

**<xsl:value-of select**=*"address/addressLines"***/>**

</json:string>

<json:string name="addressLines2">

**<xsl:value-of select**=*"address/addressLines2"***/>**

</json:string>

<json:number name="postalCode">

**<xsl:value-of select**=*"address/postalCode"***/>**

</json:number>

</json:object>

</json:object>

**</xsl:for-each>**

</json:array>

</json:object>

</json:object>

**</xsl:template>**

**</xsl:stylesheet>**