Program Code :

**Carrentals.xml**

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

<carrentals xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"

xsi:noNamespaceSchemaLocation="carrental.xsd">

<carrental rentalid="ABC123">

<renter>Piyush</renter>

<rentalinfo>

<car>BMW</car>

<rentaldate>2024-02-06</rentaldate>

<returndate>2024-02-13</returndate>

<pickuplocation>Zoop Cars</pickuplocation>

<returnlocation>Zoop Cars</returnlocation>

</rentalinfo>

<additionalinfo>

<specialrequests>GPS Navigation</specialrequests>

<insurance>true</insurance>

</additionalinfo>

</carrental>

<carrental rentalid="DEF456">

<renter>Rajesh</renter>

<rentalinfo>

<car>Mercedes</car>

<rentaldate>2024-02-08</rentaldate>

<returndate>2024-02-15</returndate>

<pickuplocation>Rapid Rent</pickuplocation>

<returnlocation>Rapid Rent</returnlocation>

</rentalinfo>

<additionalinfo>

<specialrequests>Child Seat</specialrequests>

<insurance>true</insurance>

</additionalinfo>

</carrental>

</carrentals>

**Carrental.xsd**

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

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

<xs:element name="carrentals">

<xs:complexType>

<xs:sequence>

<xs:element name="carrental" minOccurs="0" maxOccurs="unbounded">

<xs:complexType>

<xs:sequence>

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

<xs:element name="rentalinfo">

<xs:complexType>

<xs:sequence>

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

<xs:element name="rentaldate" type="xs:date"/>

<xs:element name="returndate" type="xs:date"/>

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

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

</xs:sequence>

</xs:complexType>

</xs:element>

<xs:element name="additionalinfo" minOccurs="0">

<xs:complexType>

<xs:sequence>

<xs:element name="specialrequests" type="xs:string" minOccurs="0"/>

<xs:element name="insurance" type="xs:boolean" default="false"/>

</xs:sequence>

</xs:complexType>

</xs:element>

</xs:sequence>

<xs:attribute name="rentalid" type="xs:string" use="required"/>

</xs:complexType>

</xs:element>

</xs:sequence>

</xs:complexType>

</xs:element>

</xs:schema>

**validation.py**

from lxml import etree

schema\_file = 'C:/Users/PIYUSH/OneDrive/Desktop/SDL lab Assignments/SDL\_Assignment\_2 code/SDL\_Assignment\_3 code/carrental.xsd'

schema = etree.XMLSchema(etree.parse(schema\_file))

xml\_file = 'C:/Users/PIYUSH/OneDrive/Desktop/SDL lab Assignments/SDL\_Assignment\_2 code/SDL\_Assignment\_3 code/carrental.xml'

xml\_doc = etree.parse(xml\_file)

if schema.validate(xml\_doc):

print("Validation successful.")

else:

print("Validation failed. Errors:")

for error in schema.error\_log:

print(error)

**Output :**

Validation successful

