**Program 2(DTD):**

Write a xml schema document (xsd) document for representing

the structure of employee information

**emps2.xsd:**

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

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

<xs:element name="emps" type="empstype">

<xs:annotation>

<xs:documentation>

this element stores about various employees

</xs:documentation>

</xs:annotation>

</xs:element>

<xs:simpleType name="salarytype">

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

<xs:minInclusive value="5000"></xs:minInclusive>

<xs:maxInclusive value="35000"></xs:maxInclusive>

</xs:restriction>

</xs:simpleType>

<xs:simpleType name="desigtype">

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

<xs:enumeration value="projectmanager"></xs:enumeration>

<xs:enumeration value="teamleader"></xs:enumeration>

<xs:enumeration value="developer"></xs:enumeration>

</xs:restriction>

</xs:simpleType>

<xs:simpleType name="deptnametype">

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

<xs:enumeration value="testing"></xs:enumeration>

<xs:enumeration value="design"></xs:enumeration>

<xs:enumeration value="programming"></xs:enumeration>

</xs:restriction>

</xs:simpleType>

<xs:simpleType name="workingtype">

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

<xs:enumeration value="yes"></xs:enumeration>

<xs:enumeration value="no"></xs:enumeration>

</xs:restriction>

</xs:simpleType>

<xs:attributeGroup name="empattributes">

<xs:attribute name="empno" type="xs:ID" use="required">

</xs:attribute>

<xs:attribute name="mgrid" type="xs:IDREF" use="optional">

</xs:attribute>

<xs:attribute name="working" default="yes" use="optional" type="workingtype">

</xs:attribute>

</xs:attributeGroup>

<xs:complexType name="empnametype">

<xs:sequence>

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

</xs:element>

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

</xs:element>

</xs:sequence>

</xs:complexType>

<xs:complexType name="emptype">

<xs:sequence>

<xs:element name="name" type="empnametype">

</xs:element>

<xs:element name="salary" type="salarytype">

</xs:element>

<xs:element name="desig" type="desigtype"> </xs:element>

</xs:sequence>

<xs:attributeGroup ref="empattributes"></xs:attributeGroup>

</xs:complexType>

<xs:complexType name="depttype">

<xs:sequence>

<xs:element name="name" type="deptnametype">

</xs:element>

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

</xs:sequence>

<xs:attribute name="deptno" use="required"></xs:attribute>

</xs:complexType>

<xs:complexType name="empstype">

<xs:sequence>

<xs:element name="emp" type="emptype"

minOccurs="1" maxOccurs="20"></xs:element>

<xs:element name="dept" type="depttype" minOccurs="1"></xs:element>

</xs:sequence>

</xs:complexType>

</xs:schema>

**Employee2.xml:**

<?xml version="1.0"?>

<emps xmlns="http://www.w3schools.com"

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

xsi:schemaLocation="emps2.xsd" >

<emp empno="e201" working="yes">

<name>

<firstname> raj </firstname>

<lastname> kumar </lastname>

</name>

<salary>10000</salary>

<desig>projectmanager</desig>

</emp>

<emp empno="e102" mgrid="e201" working="yes">

<name>

<firstname> durga </firstname>

<lastname> rao </lastname>

</name>

<salary>16500</salary>

<desig> teamlead </desig>

</emp>

<dept deptno="d101">

<name>testing</name>

<desc> tests the projects </desc>

</dept>

</emps>