

Semantic Web

Lab Sheet 1

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1. Create an XML file for student admission procedure.

Admission.xml

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

<!DOCTYPE Admission SYSTEM "Admission.dtd">

<Admission>

    <Students>

        <Student>

            <ApplicationNo></ApplicationNo>

            <Name>

                <Firstname></Firstname>

                <Lastname></Lastname>

            </Name>

            <Address>

                <DoorNo></DoorNo>

                <Street></Street>

                <Locality></Locality>

                <City></City>
```

```
<State></State>

<Country></Country>

<Pincode></Pincode>

</Address>

<Email></Email>

<Phone></Phone>

<DOB></DOB>

<Age></Age>

<Gender></Gender>

<Nationality></Nationality>

<IdentitficationMark></IdentitficationMark>

<AEEERank></AEEERank>

<JEERank></JEERank>

<SSLCPercentage></SSLCPercentage>

<HSCPercentage></HSCPercentage>

</Student>

<Parent>

  <Father>

    <Name></Name>

    <Occupation></Occupation>

    <Email></Email>

    <Phone></Phone>

  </Father>

  <Mother>
```

```

        <Name></Name>

        <Occupation></Occupation>

        <Email></Email>

        <Phone></Phone>

    </Mother>

</Parent>

<Branch>

    <BranchPreference1></BranchPreference1>

    <BranchPreference2></BranchPreference2>

    <BranchPreference3></BranchPreference3>

</Branch>

</Students>

</Admission>

```

Admission.dtd

```

<?xml version = "1.0"?>

<!DOCTYPE Admission

[

<!ELEMENT Admission (Students*)>

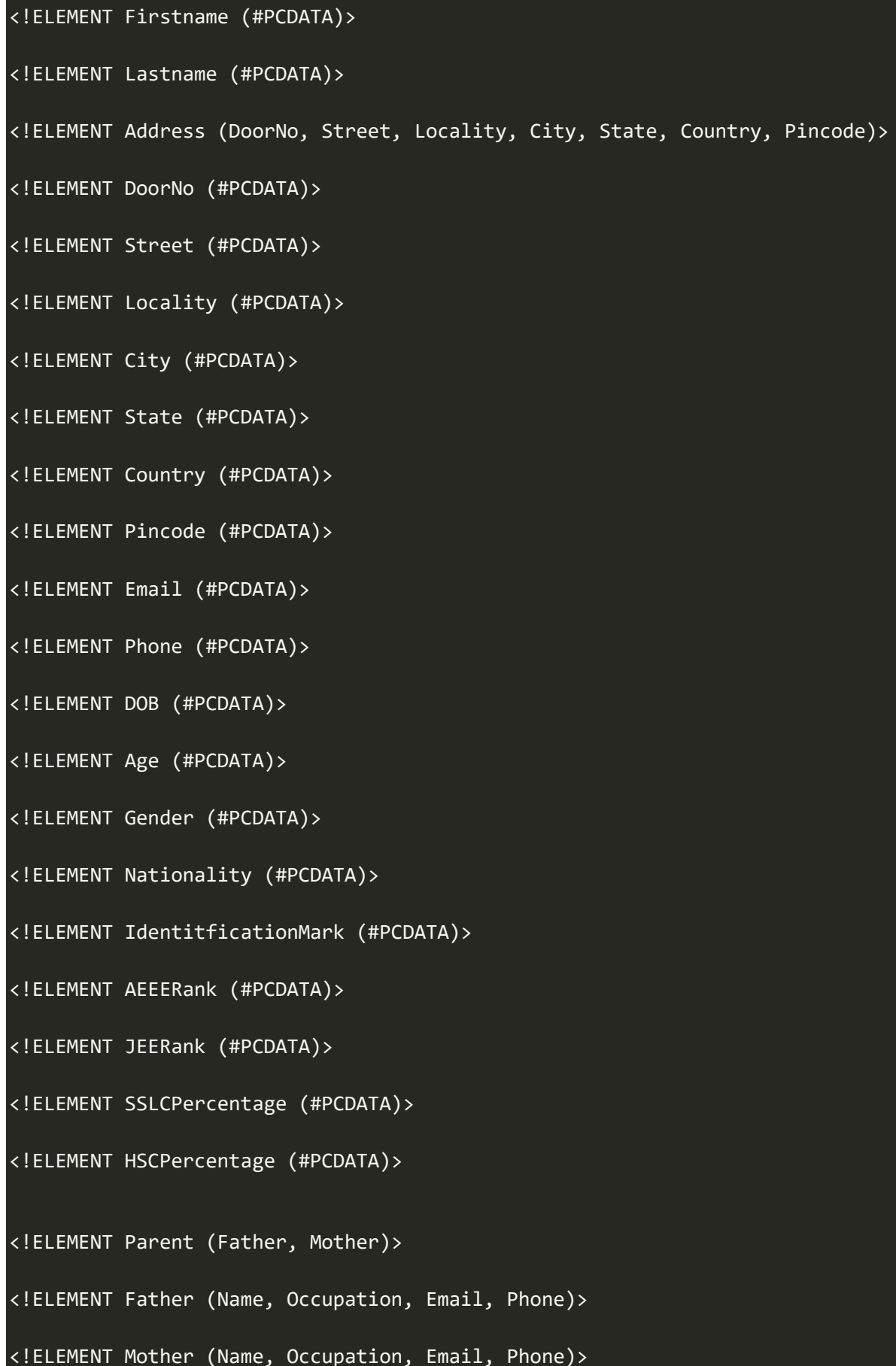
<!ELEMENT Students (Student, Parent, Branch)>

<!ELEMENT Student (ApplicationNo, Name, Address, Email, Phone, DOB, Age,
Gender, Nationality, IdentitficationMark, AEEERank, JEERank, SSLCPercentage,
HSCPercentage)>

<!ELEMENT ApplicationNo (#PCDATA)>

<!ELEMENT Name (Firstname, Lastname)>

```



```
<!ELEMENT Firstname (#PCDATA)>

<!ELEMENT Lastname (#PCDATA)>

<!ELEMENT Address (DoorNo, Street, Locality, City, State, Country, Pincode)>

<!ELEMENT DoorNo (#PCDATA)>

<!ELEMENT Street (#PCDATA)>

<!ELEMENT Locality (#PCDATA)>

<!ELEMENT City (#PCDATA)>

<!ELEMENT State (#PCDATA)>

<!ELEMENT Country (#PCDATA)>

<!ELEMENT Pincode (#PCDATA)>

<!ELEMENT Email (#PCDATA)>

<!ELEMENT Phone (#PCDATA)>

<!ELEMENT DOB (#PCDATA)>

<!ELEMENT Age (#PCDATA)>

<!ELEMENT Gender (#PCDATA)>

<!ELEMENT Nationality (#PCDATA)>

<!ELEMENT IdentificationMark (#PCDATA)>

<!ELEMENT AEEERank (#PCDATA)>

<!ELEMENT JEERank (#PCDATA)>

<!ELEMENT SSLCPercentage (#PCDATA)>

<!ELEMENT HSCPercentage (#PCDATA)>

<!ELEMENT Parent (Father, Mother)>

<!ELEMENT Father (Name, Occupation, Email, Phone)>

<!ELEMENT Mother (Name, Occupation, Email, Phone)>
```

```
<!ELEMENT Name (#PCDATA)>

<!ELEMENT Occupation (#PCDATA)>

<!ELEMENT Email (#PCDATA)>

<!ELEMENT Phone (#PCDATA)>

<!ELEMENT Branch (BranchPreference1, BranchPreference2, BranchPreference3)>

<!ELEMENT BranchPreference1 (#PCDATA)>

<!ELEMENT BranchPreference2 (#PCDATA)>

<!ELEMENT BranchPreference3 (#PCDATA)>

]>
```

2. Create an XML and DTD files for the Purchase order of a company

Purchase.xml

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

<!DOCTYPE PurchaseOrder SYSTEM "PurchaseOrder.dtd">

<PurchaseOrder>

    <PurchaseRequest>

        <PR_Number></PR_Number>

        <Supplier_ID></Supplier_ID>

        <Supplier_Name></Supplier_Name>

        <Delivery_Date></Delivery_Date>

    </PurchaseRequest>

    <Product>

        <Product_No></Product_No>
```

A decorative border with a repeating floral pattern surrounds the central text area.

```
<Product_Name></Product_Name>

<Description></Description>

<Quantity></Quantity>

<UnitPrice></UnitPrice>

<TotalPrice></TotalPrice>

<SKUNo></SKUNo>

</Product>

<Address>

  <Shipping_Address>

    <Contact_Name></Contact_Name>

    <DoorNo></DoorNo>

    <Street></Street>

    <Locality></Locality>

    <City></City>

    <State></State>

    <Country></Country>

    <Zipcode></Zipcode>

    <Company></Company>

    <Phone></Phone>

    <Fax></Fax>

    <Email></Email>

  </Shipping_Address>

  <Billing_Address>

    <Contact_Name></Contact_Name>
```

```
<DoorNo></DoorNo>

<Street></Street>

<Locality></Locality>

<City></City>

<State></State>

<Country></Country>

<Zipcode></Zipcode>

<Company></Company>

<Phone></Phone>

<Fax></Fax>

<Email></Email>

</Billing_Address>

</Address>

<Payment>

  <Purchase_Order>

    <Payment_Type></Payment_Type>

    <PO_Number></PO_Number>

  </Purchase_Order>

  <Card>

    <Debit_Card>

      <Card_Number></Card_Number>

      <Card_Holder_Name></Card_Holder_Name>

      <Expiry_Month></Expiry_Month>

      <Expiry_Year></Expiry_Year>
```

```

        <CVV></CVV>

        <PIN></PIN>

    </Debit_Card>

    <Credit_Card>

        <Card_Number></Card_Number>

        <Card_Holder_Name></Card_Holder_Name>

        <Expiry_Month></Expiry_Month>

        <Expiry_Year></Expiry_Year>

        <CVV></CVV>

        <PIN></PIN>

    </Credit_Card>

</Card>

</Payment>

</PurchaseOrder>

```

Purchase.dtd

```

<?xml version = "1.0"?>

<!DOCTYPE PurchaseOrder

[

<!ELEMENT PurchaseOrder (PurchaseRequest, Product+, Address, Payment)>

<!ELEMENT PurchaseRequest (PR_Number, Supplier_ID, Supplier_Name,
Delivery_Date)>

<!ELEMENT PR_Number (#PCDATA)>

<!ELEMENT Supplier_ID (#PCDATA)>

<!ELEMENT Supplier_Name (#PCDATA)>

```




```
<!ELEMENT Delivery_Date (#PCDATA)>

<!ELEMENT Product (Product_No, Product_Name, Description, Quantity, UnitPrice,
TotalPrice, SKUNo)>

<!ELEMENT Product_No (#PCDATA)>

<!ELEMENT Product_Name (#PCDATA)>

<!ELEMENT Description (#PCDATA)>

<!ELEMENT Quantity (#PCDATA)>

<!ELEMENT UnitPrice (#PCDATA)>

<!ELEMENT TotalPrice (#PCDATA)>

<!ELEMENT SKUNo (#PCDATA)>

<!ELEMENT Address (Shipping_Address, Billing_Address)>

<!ELEMENT Shipping_Address (Contact_Name, DoorNo, Street, Locality, City,
State, Country, Zipcode, Company, Phone, Fax, Email)>

<!ELEMENT Contact_Name (#PCDATA)>

<!ELEMENT DoorNo (#PCDATA)>

<!ELEMENT Street (#PCDATA)>

<!ELEMENT Locality (#PCDATA)>

<!ELEMENT City (#PCDATA)>

<!ELEMENT State (#PCDATA)>

<!ELEMENT Country (#PCDATA)>

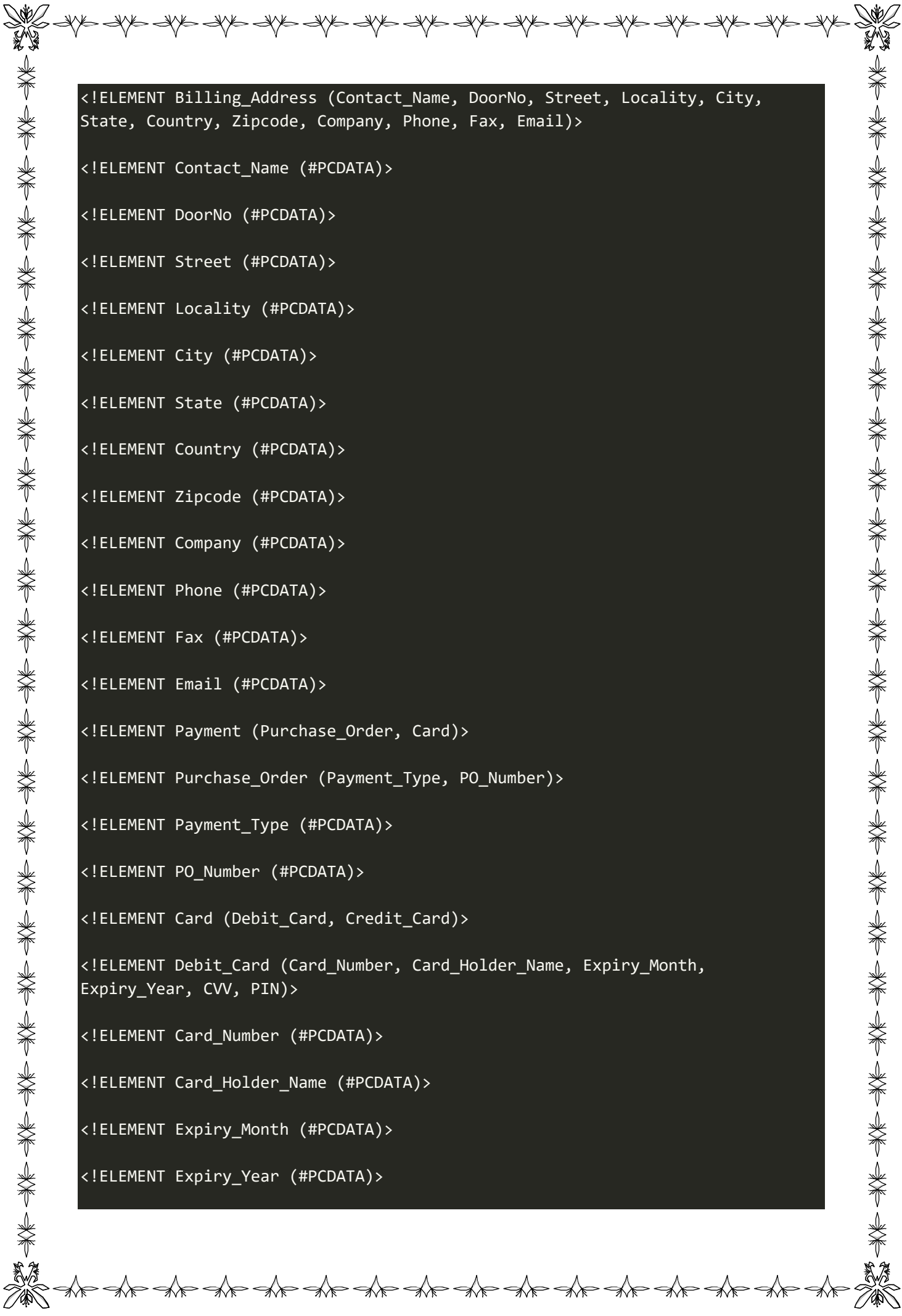
<!ELEMENT Zipcode (#PCDATA)>

<!ELEMENT Company (#PCDATA)>

<!ELEMENT Phone (#PCDATA)>

<!ELEMENT Fax (#PCDATA)>

<!ELEMENT Email (#PCDATA)>
```



```
<!ELEMENT Billing_Address (Contact_Name, DoorNo, Street, Locality, City,
State, Country, Zipcode, Company, Phone, Fax, Email)>
```

```
<!ELEMENT Contact_Name (#PCDATA)>
```

```
<!ELEMENT DoorNo (#PCDATA)>
```

```
<!ELEMENT Street (#PCDATA)>
```

```
<!ELEMENT Locality (#PCDATA)>
```

```
<!ELEMENT City (#PCDATA)>
```

```
<!ELEMENT State (#PCDATA)>
```

```
<!ELEMENT Country (#PCDATA)>
```

```
<!ELEMENT Zipcode (#PCDATA)>
```

```
<!ELEMENT Company (#PCDATA)>
```

```
<!ELEMENT Phone (#PCDATA)>
```

```
<!ELEMENT Fax (#PCDATA)>
```

```
<!ELEMENT Email (#PCDATA)>
```

```
<!ELEMENT Payment (Purchase_Order, Card)>
```

```
<!ELEMENT Purchase_Order (Payment_Type, PO_Number)>
```

```
<!ELEMENT Payment_Type (#PCDATA)>
```

```
<!ELEMENT PO_Number (#PCDATA)>
```

```
<!ELEMENT Card (Debit_Card, Credit_Card)>
```

```
<!ELEMENT Debit_Card (Card_Number, Card_Holder_Name, Expiry_Month,
Expiry_Year, CVV, PIN)>
```

```
<!ELEMENT Card_Number (#PCDATA)>
```

```
<!ELEMENT Card_Holder_Name (#PCDATA)>
```

```
<!ELEMENT Expiry_Month (#PCDATA)>
```

```
<!ELEMENT Expiry_Year (#PCDATA)>
```

```
<ELEMENT CVV (#PCDATA)>

<ELEMENT PIN (#PCDATA)>

<ELEMENT Credit_Card (Card_Number, Card_Holder_Name, Expiry_Month,
Expiry_Year, CVV, PIN)>

<ELEMENT Card_Number (#PCDATA)>

<ELEMENT Card_Holder_Name (#PCDATA)>

<ELEMENT Expiry_Month (#PCDATA)>

<ELEMENT Expiry_Year (#PCDATA)>

<ELEMENT CVV (#PCDATA)>

<ELEMENT PIN (#PCDATA)>

]>
```

3. Create an XML and DTD files for the food menu in hotel

Menu.xml

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

<!DOCTYPE Menu SYSTEM "Menu.dtd">

<Menu>

    <Breakfast>

        <Category name = "Main">

            <Item>

                <Name></Name>

                <Price></Price>

                <Description></Description>

                <Calories></Calories>

            </Item>
```

```
</Category>

<Category name = "Pastry">

    <Item>

        <Name></Name>

        <Price></Price>

        <Description></Description>

        <Calories></Calories>

    </Item>

</Category>

<Category name = "Sharers">

    <Item>

        <Name></Name>

        <Price></Price>

        <Description></Description>

        <Calories></Calories>

    </Item>

</Category>

<Category name = "Toasters">

    <Item>

        <Name></Name>

        <Price></Price>

        <Description></Description>

        <Calories></Calories>

    </Item>
```

```
</Category>

<Category name = "Hot_Drinks">

  <Item>

    <Name></Name>

    <Price></Price>

    <Description></Description>

    <Calories></Calories>

  </Item>

</Category>

<Category name = "Fruit_Drinks">

  <Item>

    <Name></Name>

    <Price></Price>

    <Description></Description>

    <Calories></Calories>

  </Item>

</Category>

</Breakfast>

<Lunch>

  <Category name = "Indian_Dishes">

    <Item>

      <Name></Name>

      <Price></Price>

      <Description></Description>
```

```
        <Calories></Calories>

    </Item>

</Category>

<Category name = "Sandwiches">

    <Item>

        <Name></Name>

        <Price></Price>

        <Description></Description>

        <Calories></Calories>

    </Item>

</Category>

<Category name = "Speciality_Soups">

    <Item>

        <Name></Name>

        <Price></Price>

        <Description></Description>

        <Calories></Calories>

    </Item>

</Category>

<Category name = "Appetizers">

    <Item>

        <Name></Name>

        <Price></Price>

        <Description></Description>
```

```
        <Calories></Calories>

    </Item>

</Category>

<Category name = "Thai_Dishes">

    <Item>

        <Name></Name>

        <Price></Price>

        <Description></Description>

        <Calories></Calories>

    </Item>

</Category>

<Category name = "Sea_Food">

    <Item>

        <Name></Name>

        <Price></Price>

        <Description></Description>

        <Calories></Calories>

    </Item>

</Category>

<Category name = "From_the_Land">

    <Item>

        <Name></Name>

        <Price></Price>

        <Description></Description>
```

```
        <Calories></Calories>

    </Item>

</Category>

<Category name = "Veal">

    <Item>

        <Name></Name>

        <Price></Price>

        <Description></Description>

        <Calories></Calories>

    </Item>

</Category>

<Category name = "Salads">

    <Item>

        <Name></Name>

        <Price></Price>

        <Description></Description>

        <Calories></Calories>

    </Item>

</Category>

</Lunch>

<Dinner>

    <Category name = "Italian_Cuisine">

        <Item>

            <Name></Name>
```



```
        <Price></Price>

        <Description></Description>

        <Calories></Calories>

    </Item>
</Category>

<Category name = "Hot_Dog_and_Coffee">

    <Item>

        <Name></Name>

        <Price></Price>

        <Description></Description>

        <Calories></Calories>

    </Item>
</Category>

<Category name = "Fries_and_Coke">

    <Item>

        <Name></Name>

        <Price></Price>

        <Description></Description>

        <Calories></Calories>

    </Item>
</Category>

<Category name = "Pizza_and_Coke">

    <Item>

        <Name></Name>
```

```
        <Price></Price>

        <Description></Description>

        <Calories></Calories>

    </Item>

</Category>

<Category name = "HamBurger_and_Coffee">

    <Item>

        <Name></Name>

        <Price></Price>

        <Description></Description>

        <Calories></Calories>

    </Item>

</Category>

<Category name = "Tacos_and_Fries">

    <Item>

        <Name></Name>

        <Price></Price>

        <Description></Description>

        <Calories></Calories>

    </Item>

</Category>

<Category name = "Desserts">

    <Item>

        <Name></Name>
```

```

        <Price></Price>

        <Description></Description>

        <Calories></Calories>

    </Item>

</Category>

<Category name = "Bevarages">

    <Item>

        <Name></Name>

        <Price></Price>

        <Description></Description>

        <Calories></Calories>

    </Item>

</Category>

</Dinner>

</Menu>

```

Menu.dtd

```

<?xml version = "1.0"?>

<!DOCTYPE Menu

[

<!ELEMENT Menu (Breakfast, Lunch, Dinner)>

<!ELEMENT Breakfast (Category+)>

<!ELEMENT Lunch (Category+)>

<!ELEMENT Dinner (Category+)>

```

```
<!ATTLIST Category name ID #REQUIRED>

<!ELEMENT Category (Item+)>

<!ELEMENT Item (Name, Price, Description, Calories)>

<!ELEMENT Name (#PCDATA)>

<!ELEMENT Price (#PCDATA)>

<!ELEMENT Description (#PCDATA)>

<!ELEMENT Calories (#PCDATA)>

]>
```

Thankyou!!