Lab 2
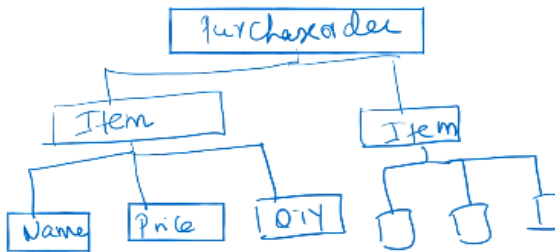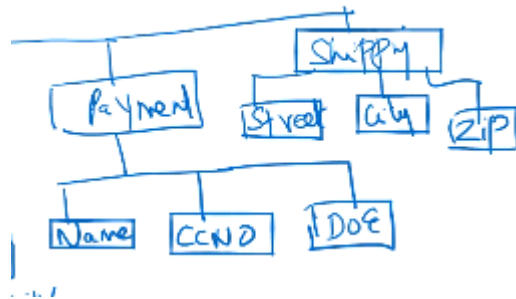
Schema for Purchase Order

Amazon -> purchaseorder.xsd -> Client
Client ->purchaseorder.xml -> Amazon

Schema -> reference
If xml obeys schema, the request is accepted and invoice generated

Multiple items in one purchase order

Assume we have a condition:
Item
    QTY > 20 & QTY < 40
    Name: string
    Price: integer
Payment
    Name: String
    CCNO: int
    DOE: Date
Shipping
    Street: string
    City: string
    ZIP: XXX-XXX

Complex elements: elements with child elements

Simple elements: elements with a value

Details -> Type to set type
Set type to int
Facets -> minIncl, maxIncl, minExcl, maxExcl

Facets -> Pattern, Enumeration (for fixed list of valid entries)
Attribute -> required
Date: yyyy-mm-dd

Well-formedness v/s valid

1. Well-formed: follows syntax rules of XML
2. XML obeys schema: valid
3. Well-formed but does not obey schema: invalid

Invalidity:
1. Not well formed
2. Does not obey schema

Question:

Q1.BITS Pilani Dubai campus is name of an university. Let the university has 2 departments.In each dept there is 1 faculty there. Each faculty has a Name, and has a subject to teach, and DateOfJoin , country and has a student under him with the following details Name,Roll number,Country . Mech faculty will teach either fluid dynamics or theory of machines. CS faculty will teach either Database or Datastructures.. Each faculty has an attribute by name FacultyID which can assume "abc-1200"(any 3 alphabets,then-, then any 4 digits) . Each student has an Roll Number like 2018A7100 (i.e. any 4 digits then any one alphabet and then any 3 digits). If any element value type is not specified treat it as a string.

You are asked to represent the above information using XML. Hence first derive the schema for the XML representation as well as valid XML document.(5M)