Solution Quiz#4

BESE 15

06-01-2011

Q1 Convert the following tables into a SINGLE xml document.

Dept

| DID | Name | Rooms | Staff |
|-------|------------------------|-------|-------|
| CS235 | Computer Science | 4 | 32 |
| EE415 | Electrical Engineering | 6 | 45 |

Faculty

| <u>FID</u> | Name | Salary |
|------------|----------|--------|
| 101 | Nicole | \$1000 |
| 102 | Vincent | \$2000 |
| 103 | Florence | \$1500 |

Dept-Faculty

| <u>FID</u> | DID |
|------------|-------|
| 101 | CS235 |
| 102 | CS235 |
| 103 | EE415 |

```
Solution
<MCS>
       <Dept>
              <DID>CS235</DID>
              <Name>Computer Science</Name>
              <Rooms>4</Rooms>
              <Staff>32</Staff>
              <faculty>
                     <FID>101</FID>
                     <Name>Nicole</Name>
                     <Salary>1000</Salary>
              </faculty>
              <faculty>
                     <FID>102</FID>
                     <Name>Vincent</Name>
                     <Salary>2000</Salary>
              </faculty>
       </Dept>
       <Dept>
              <DID>EE415</DID>
              <Name>Electrical Engineering</Name>
              <Rooms>6</Rooms>
              <Staff>45</Staff>
              <faculty>
                     <FID>103</FID>
                     <Name>Florence</Name>
```

</faculty>

</Dept>

</MCS>

<Salary>1500</Salary>

Q2 Write the DTD for an XML document to store the following data:

```
<mcs>
<course>
                  <ID>BESE15</ID>
                  <Student>
                                  <name>...</name>
<email>...</email>
                  </Student> <Student>
                                  <name>...</name>
                  </Student>
  </course>
<course>
                  <ID>BESE14</ID>
                  <Student>
                                  <name>...</name>
<email>...</email>
                  </Student>
  </course>
</mcs>
Solution
<!DOCTYPE MCS[
<! Element MCS(Course)+>
<!Element Course(Id, (Student)+)>
<!Element Student(Name, (Email)*)>
<!Element ID(#PCDATA)>
<!Element Name(#PCDATA)>
<!Element Email(#PCDATA)>
]>
```

Q3 Given the DTD, find which of these are NOT valid.

```
<!ELEMENT Customer ( (name, (phone)+)>
<!ELEMENT name (#PCDATA)>
<!ELEMENT phone (#PCDATA)>

<db>
<customer>
</phone>...</phone>
</phone>...</phone>
</customer>
</db>

<db>
<customer>
</db>

<db>
<customer>
</db>

| Coustomer>
</db>
| Coustomer>
</db>
| Coustomer>
</db>
| Coustomer>
</db>
| Coustomer>
</db>
| Coustomer>
</db>
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| Coustomer>
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| Coustomer>
</db>
| Coustomer>
</db>
| Coustomer>
</db>
| Coustomer>
</db>
```

Solution

A is valid.

B is invalid as <name> is missing. C is invalid as <phone> is missing.