4. XML Schema (1)

This sheet contains an exercise about XML Schema.

1. Transforming a DTD into an XML Schema[1]

Consider the following DTD specifying the format of documents with information about juicers, that is, devices to obtain juice from fruit:

```
<!ELEMENT juicers (juicer)*>
<!ELEMENT juicer (name, image, description, warranty?,
                  weight?, cost+, retailer)>
<!ELEMENT name (#PCDATA)>
<!ELEMENT image (#PCDATA)>
<!ELEMENT description (#PCDATA)>
<!ELEMENT warranty (#PCDATA)>
<!ELEMENT weight (#PCDATA)>
<!ELEMENT cost (#PCDATA)>
<!ELEMENT retailer (#PCDATA)>
```

Convert this DTD into an equivalent XML schema. Do a straight one-to-one conversion (i.e., in the DTD where the elements are declared to contain #PCDATA declare the corresponding element in the XML schema to be of type string). Once you have the schema completed, validate it. Then modify the document `juicers.xml` to indicate that it conforms to your schema. Finally, validate the instance document against your schema.
Hint: Use Eclipse to create your XML schema.

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[1]This is Lab 1 of the XML Schema tutorial by Roger L. Costello, `http://www.xfront.com/xml-schema.html`