XML Document

When multiple (several) XML documents are of the same pattern, the structural patterns of these documents can be specified through

- DTD (Document Type Definition) similar to CSS.

Regular Expression

\[ \text{\texttt{path} \? \Rightarrow \text{path} \text{ is optional}} \]

\[ \text{\texttt{path} \+ \Rightarrow \text{\texttt{path}} \text{ occurs at least once}} \]

\[ \text{\texttt{path} \* \Rightarrow \text{\texttt{path}} \text{ occurs none, once, twice...}} \]

Element

Attributes

e.g.,

\[ \langle \text{TABLE} \rangle \]

\[ \langle \text{FORM} \text{ method="POST" Action="-----" } \rangle \]

Tag for the element == value

\[ \langle \text{FORM} \rangle \]

\[ \langle \text{TABLE} \text{ bgcolor="cyan" } \rangle \]

\[ \langle \text{TR} \rangle \text{---} \text{---} \text{---} \text{---} \langle /\text{TR} \rangle \]

\[ \langle /\text{TABLE} \rangle \]
XML: Extensible Markup Language

- Define custom tags
  Apart from static tags of HTML, we can use our own tags.
- Text-based (structure & data together)
  Easier to interpret

Unstructured:

[Research manager Franklin Wong]
[Admin "Jennifer Wallace]
[Headquarter "James Borg]

Structured:

<DEPT>
  <DNAME>RESEARCH</DNAME>
  <Manager>Franklin Wong</Manager>
</DEPT>

- XML document is a tree.

XML is widely used to transfer info between computer systems (server & heterogeneous clients)