XML

1. Doesn’t do anything, just stores information in tags for other software to display
2. Difference from HTML
   1. XML Focuses on what data is, HTML focuses on how it looks
   2. HTML has predefined tags
3. Syntax Rules
   1. Only 1 root
   2. All elements have closing tags
   3. Tags are case sensitive
   4. Must be properly nested (closed in order of nesting)
   5. Attribute values must always be quoted
   6. Does not truncate white spaces

| Structure |  | <root>  <child>  <subchild1>TEXT</subchild1>  <subchild2>TEXT</subchild2>  </child>  </root> | Only 1 root per file. Child, parent, sibling, and subchild are all relational descriptors. |
| --- | --- | --- | --- |
| Prolog |  | <?xml version”1.0” encoding=”UTF-8”?> | Optional, but must be first line if included |
| Elements |  | <element>  <element2>  <element3> </element3>  <element4> </element4>  </element2>  </element> | Case sensitive  Must start with letter or underscore  Cannot start with letters xml  Can contain letters, nums, hyphens underscores and periods  CANNOT contain spaces |
| Attributes |  | <element attribute=”value”> </element> | Must be quoted, describe elements. Can be interchangeable with elements.  Has limitations that elements dont;  Cannot contain multiple values  Cannot contain tree structure  Cannot be easily expandable  Useful for metadata like id’s for elements. |
| Name Conflict Solutions | | | |
| Name spaces | Prefix | <h:table>  <h:tr>  <h:td> apples> </h:td>  </h:tr>  </h:table>  <f:table>  <f:name>coffee table<f/:name>  <f:width>10</f:width>  <f:length>15</f:length>  </f:table> | Here two elements are differentiated using a prefix h: for a data table and f: for a furniture table. |
|  | Xmlns, namespace definition | <h:table **xmlns:h=”link”**>  <h:tr>  <h:td> apples> </h:td>  </h:tr>  </h:table>  <f:table **xmlns:f=”link”**>  <f:name>coffee table<f/:name>  <f:width>10</f:width>  <f:length>15</f:length>  </f:table> | The **xmlns:h=”link”** attribute makes it so that the h: is a qualified namespace and qualifying it makes it so that all child elements with the same prefix are associated with the namespace. Could also be declared at root element. You can also use default name space  <table xmlns=”link”>  To save from having to use prefix on all children. |
|  | | | |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |