**New Perspectives XML Comprehensive, 3e**

**Tutorial 5: Transforming XML with XSLT and XPath**

**Key Terms**

**Absolute path** A location path that starts with the root node and descends down the node tree to a particular node or node set. (XML 260)

**Ancestor node** A node at the top branch of a node tree. (XML 260)

**Attribute node** A node referencing an element's attribute from a source document. (XML 259)

**Attribute set** A grouping of attributes associated with an element. (XML 309)

**Built-in templates** Templates that are part of the XSLT language and that are applied automatically by the processor. (XML 290)

**Child nodes** Nodes that are contained within a parent node. (XML 260)

**Client-side transformation** A transformation performed by the client to generate the result document. (XML 255)

**Comment node** A node containing a comment from the source document. (XML 263)

**Comparison operator** An XPath operator used to compare one value to another. (XML 298)

**Conditional processing** A programming technique that applies different styles based on the values from the source document using either the xsl:choose element or xsl:if element. (XML 293)

**Context node** The starting location for a relative path. (XML 260)

**Descendant node** *See* root node. (XML 259)

**Element node** A node referencing an element from a source document. (XML 259)

**Extensible Stylesheet Language** An XML language used to transform the contents of a source document into a new format as a result document. (XML 254)

**Extensible Stylesheet Language – Formatting Objects** An XSL language used for the layout of paginated documents. (XML 254)

**Extensible Stylesheet Language Transformation** An XML vocabulary used for transforming the contents of a source document into a result document. (XML 254)

**Literal result elements** Any elements that are not part of the XSLT vocabulary but instead are sent directly to the result document as raw text. (XML 252)

**Location path** An XPath expression that references a specific node or node set from a node tree. (XML 260)

**Match** Attribute of the xsl:template element used to specify the node set for which the template is applied. (XML 275)

**Node** Any item within a document's tree structure. (XML 259)

**Node set** A collection of nodes. (XML 259)

**Node tree** The hierarchical organization of nodes in the source document. (XML 259)

**Output element** An XSLT element that defines the format of the result document. (XML 252)

**Parent node** A node that contains other nodes. (XML 260)

**Predicate** The part of the location path that restricts the node set to only those nodes that fulfill a specified condition. (XML 292)

**Processing instruction node** A node containing a processing instruction from the source document. (XML 263)

**Relative path** A location path that starts from a specific node and expresses the location of a node or node set relative to that starting location. (XML 260)

**Result document** The document containing the result of the XSLT transformation. (XML 253)

**Result tree** The hierarchical structure of the result document consisting of elements, attributes, text, and other nodes. (XML 307)

**Root node** The node at the top of a node tree. (XML 259)

**Root template** A template that defines styles for the source document's root node. (XML 252)

**Saxon** An XSLT and XQuery processor used to transform the contents of a source document or to apply database queries to a source document. (XML 269)

**Server-side transformation** A transformation in which the server receives a request from the client to generate the result document. (XML 254)

**Sibling node** Nodes that share a common parent node. (XML 260)

**Source document** An XML document that is transformed by the styles in an XSLT style sheet. (XML 252)

**Template** An XSLT structure that contains a collection of styles applied to a specific node set in the source document. (XML 263)

**Test** An XSLT attribute used with the xsl:when element. (XML 293)

**Text node** A node containing the text of an element. (XML 262)

**XML fragment** A part of an XML document but lacking the XML declaration. (XML 267)

**Xpath** A language used to access and navigate the contents of an XML data tree. (XML 259)

**XSL** *See* Extensible Stylesheet Language. (XML 254)

**Xsl:apply-templates** An XSLT element that applies a template to selected nodes. (XML 274)

**Xsl:attribute** An XSLT element used to construct an attribute for an element. (XML 309)

**Xsl:attribute-set** An XSLT element used to create an attribute set. (XML 309)

**Xsl:choose** An XSLT element that chooses among different possible styles to apply to the result document. (XML 293)

**Xsl:comment** An XSLT element used to create a comment in the result document. (XML 310)

**Xsl:element** An XSLT element used to construct an element in the result document. (XML 308)

**Xsl:for-each** An XSLT element used to loop through values of a node set. (XML 280)

**Xsl:if** An XSLT element that applies styles only when a specified condition is met. (XML 298)

**Xsl:otherwise** An XSLT element applied in a choose structure when no other conditions are satisfied. (XML 293)

**Xsl:processing-instruction** An XSLT element used to create a processing instruction in the result document. (XML 311)

**xsl:sort** An XSLT element used to sort nodes in the result document. (XML 295)

**Xsl:stylesheet** Root element of an XSLT style sheet. (XML 258)

**Xsl:template** An XSLT element that defines a set of styles for a specified node set. (XML 280)

**Xsl:value-of** An XSLT element that writes the value of selected nodes. (XML 274)

**Xsl:when** An XSLT element that provides a condition in a choose structure. (XML 293)

**XSL-FO** *See* Extensible Stylesheet Language – Formatting Objects (XML 254)

**XSLT** *See* Extensible Stylesheet Language Transformation. (XML 254)

**XSLT** element Any element that is part of the XSLT vocabulary. (XML 254)

**XSLT** element Any element that is part of the XSLT vocabulary. (XML 264)

**XSLT** style sheet An XML document used to transform the contents of the source document into a new format that appears in the result document. (XML 252)