**What is DOM:**

Document Object Model (DOM) is a Java API for parsing an XML document into an in-memory tree of nodes, and for creating an XML document from a node tree.

**A Tree of Nodes:**

DOM views an XML document as a tree that is composed of several kinds of nodes. This tree has a single *root node* and all nodes, except for the root, have a *parent node*. Also, each node has a list of *child nodes*. When this list is empty, the child node is known as a *leaf node*.

Each node has a *node name*, which is the complete name for nodes that have names and #*node-type* for unnamed nodes where *node-type* is one of cdata-section, comment, document, document-fragment, or text. Nodes also have *local names* (names without prefixes), prefixes, and namespace URIs. Nodes have string values

DOM classifies nodes into 12 types:

Attribute node: One of an element’s attributes.

CDATA section node: The contents of a CDATA section.

Comment node: A document comment

Document node: The root of a DOM tree.

Document fragment node: An alternative root node. Document fragment nodes let you work with subtrees.

Document type node: A document type declaration.

Element node: A document’s element.

Entity node: When a parser reads a DTD, it attaches a map of entity nodes to the document type node.

Entity reference node: A reference to a DTD-declared entity.

Notation node: A DTD-declared notation.

Processing instruction node: A processing instruction that appears in the document.

Text node: Document content.

**Exploring the DOM API**

**Obtaining a DOM Parser/Document Builder:**

A DOM parser is also known as a *document builder* because of its dual role in parsing and creating XML documents. After the factory has been configured, call its DocumentBuilder newDocumentBuilder() method to return a document builder that supports the configuration

**Parsing and Creating XML Documents:**

DocumentBuilder provides several overloaded parse() methods for parsing an XML document into a node tree. These methods differ in how they obtain the document. For example, Document parse(String uri) parses the document that’s identified by its string-based URI argument.

DocumentBuilder also declares the abstract Document newDocument() method  
for creating a document tree.