## 20.2.6 Extensible Markup Language programming model

Extensible Markup Language (XML) structured data has become the predominant format for data interchange. XML data is navigated, queried, or transformed in almost every existing application that runs on WebSphere Application Server V8.5. This release delivers critical technology that provides application developers with support for the following key World Wide Web Consortium (W3C) XML standards:

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- ► Extensible Stylesheet Language Transformations (XSLT) 2.0
- ► XML Path Language (XPath) 2.0
- ► XML Query Language (XQuery) 1.0

These W3C XML standards offer application developers numerous advanced capabilities for building XML applications. WebSphere Application Server V8.5 support for XML has the following key features and capabilities:

- ► An XML application development environment tuned for developer productivity
- ► An XML runtime API that offers consistent execution and data navigation API that allows access to existing Java logic
- ► The ability to query large amounts of data stored in XML outside of a database with XQuery 1.0
- ► Optimum XML-application performance
- ► XML-application reliability with support for XML schema-aware processing and validation
- ► 40+ preconfigured samples including four end-to-end scenarios

## 20.2.7 Integrated Web Services support

WebSphere Application Server V8.5 supports web services that are developed and implemented based on the Web Services for Java Platform, Enterprise Edition (Java EE) specification, V1.3. This specification supports WSDL Version 1.1, SOAP Version 1.1 and SOAP V1.2. The application server supports the Java API for the XML Web Services (JAX-WS) programming model and the Java API for XML-based RPC (JAX-RPC) programming model.

Java Architecture for XML Binding (JAXB) 2.2 provides a convenient way to map Java classes and XML schema for simplified development of web services. Version 2.2 provides minor enhancements to its annotations for improved schema generation and better integration with Java API for XML-based web services.

JAX-WS 2.2 simplifies the development of web services with more platform independence for Java applications by the use of proxies and Java annotations. JAX-WS 2.2 requires JAXB 2.2.

## 20.2.8 Support for integrated IBM WebSphere Application Server Web 2.0 and Mobile Toolkit

The WebSphere Application Server Web 2.0 and Mobile Toolkit simplifies the addition of Asynchronous JavaScript and XML (AJAX) rich desktop and mobile user interfaces and REST web services to Java web applications. Web 2.0 capabilities, such as AJAX and REST, help application developers to create more connected, interactive applications, that result in higher customer satisfaction, user productivity, and enhanced decision making. New mobile AJAX components enable developers to create mobile web applications that run on devices, such as smart phones and tablets.