

UNIT - V

Web Services: JAX-RPC-Concepts-Writing a Java Web Service-Writing a Java Web Service Client-Describing Web Services: WSDL-Representing Data Types: XML Schema- Communicating Object Data: SOAP Related Technologies-Software Installation-Storing Java Objects as Files-Databases and Java Servlets.

1. What is the concept behind JAX-RPC technology? (NOV/DEC 2011)

The Web services are the software systems that are displayed by the web browser using the web protocol. These software systems are used by the some of the application rather than by end-users directly.

2. What are Web Services?

Web Services are software systems that are designed to be accessed using web protocols and technologies that are intended to be used by other software applications rather than directly by end users.

3. What is meant by WSDL? (APRIL/MAY 2011)

WSDL is Web Services Definition Language which is based on XML. WSDL defines the web service like operation, parameter, return values and communication protocols.

4. What is the use of WSDL?

Web Services Definition Language (WSDL) is used to describe the operations provided by a web service which includes defining the data to be passed from the client to the operation as well as the return value of the operation using SOAP.

5. What is XSL and why it is used. (APRIL/MAY 2008)

The Extensible Stylesheet Language (XSL) is an XML vocabulary typically used to transform XML document from one form to another form. XSL document are well- formed XML documents.

6. Write the expansion for the following i) SOAP ii) JWSDP iii) SAAJ iv) ODBC

SOAP- Simple Object Access Protocol
JWSDP – Java Web Services Developer Pack
SAAJ – SOAP with Attachments API for Java
ODBC – Open Data Base Connectivity

7. When it is useful to redirect a request to a different resource. (APRIL/MAY 2008)

Sometimes it is useful to redirect a request to a different resource. For example, a servlet could determine the type of the client browser and redirect the request to a Web page that was designed specifically for that browser. The `RedirectServlet` receives a `page` parameter as part of a get request, then uses that parameter to redirect the request to a different resource.

8. Define service endpoint interface.

Service endpoint interface is a Java interface that specifies the operations that will be provided by the service which is essentially an API for the service.

9. What is the basic difference between get request and post request types for service endpoint interface?

The basic rules for service endpoint interface are

The interface must extend directly or indirectly the `java.rmi.Remote` interface. Every method in the interface must throw `java.rmi.RemoteException`.

Every method parameter and every return value must conform to certain restrictions on the allowed data types

The interface must not contain any *public static final* declarations.

10. What are the tools available in JWSDP 1.3?

Web services can be built using two tools.

wscompile: converts Java files into a WSDL document along with another intermediate output file.

wsdeploy: is used to package our service before finally deploying it as a web

application.

11. What are built-in data types for XML Schema?

The data types defined by the XML Schema specification itself are called its built-in data types. For e.g xsd:integer, xsd:decimal, xsd:string, xsd:boolean, xsd:float etc.

12. What are the classifications XML Schema data types?

There are two classes of XML Schema data types. They are (i)Simple (ii) Complex

13. What are simple and complex data types?

A *simple type* is a data type whose values are represented in XML documents by character data and are used to represent individual values.

A *complex type* is a data type whose values are represented using markup and are used to represent structured data.

14. How can the user-defined simple types be defined?

The user-defined simple types can be defined by specifying one or more restrictions on the values of a simple built-in type. All built-in data type has various facets that can be used within a restriction to form a simple user-defined type such as *base*, *enumeration*, *length*, *minLength*, *maxLength*, *minInclusive*, *maxInclusive* etc.

15. Define the term RPC.

Remote Procedure Call is the generic term used for the type of communication used to describe web service operations when the client makes a call to a method or procedure that resides on another machine (remotely)

16. Write the steps to obtain the command prompt in Windows XP.

The steps to obtain the command prompt in Windows XP are as follows

Click the Start button

Select Run

Type **cmd** in the Run window

17. What are Environment Variables?

Environment Variables are variables used to tell applications where to look for certain files. For example, the CLASSPATH environment variable can be used to tell the Java Compiler and virtual machine where to look for user-defined Java class files.

18. Define Serialization. (APRIL/MAY 2011)

Serialization is the process of writing the state of the object to the byte stream. This technique is useful when we want to store the current state of the object to the file.

19. What is the functionality of object serialization?

When an object is serialized, the data contained within an object is transformed into a number of bytes representing the data can then be stored in a file and transmitted over a communications network, or otherwise treated like any other stream of data.

20. In what ways the objects can be serialized?

The objects belonging to a class can be serialized if the class implements the *Java.io.Serializable* interface either directly or indirectly by extending a super class that is serializable or by implementing an interface that is a sub interface of *Serializable*.

21. What is the use of *Connection* object?

A Connection object can be used to obtain information about the database, such as the table it contains, as well as to set parameters of the interaction with the database.

22. List out the objects used for database access using JDBC.

Condition Statement Result Set

23. List out the default ports of Tomcat Web Server and Java Web Server

Tomcat – 8080

JWS – 9090

HTTP – 80

SMTP – 25

Telnet – 23

POP3 – 110

24. What is UDDI? (NOV/DEC 2011)

Universal Description, Discovery and Integration (UDDI) is a directory service where businesses can register and search for Web services. UDDI is a platform-independent framework for describing services, discovering businesses, and integrating business services by using the Internet. UDDI stands for Universal Description, Discovery and Integration. It is a directory for storing information about web services. It is a directory of web service interfaces described by WSDL. It communicates via SOAP. It is built into the Microsoft .NET platform

25. What is port?

Ports are purely abstractions in the computer's memory and do not represent anything physical like a serial port or parallel port.

Each port is identified by a number from 1 to 65,535. Each port can be allocated to a particular service.

Port numbers from 1 to 1023 are reserved for well-known services such as FTP, HTTP, e-mail, finger etc.

