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Soap interview questions

SOAP developers are in great demand as the platform has multiple benefits to offer. Facing an interview can be tough especially if the field is updated continuously. Therefore I have gathered here a few frequently asked questions that can be asked during an interview. These questions answer most of the topics under SOAP and are popular among the interviewees.

Read Best SOAP Interview Questions and answers

Q1. Explain what is SOAP?

SOAP (Simple Object Access Protocol) is a communication protocol that facilitates the exchange of data over different networks. It is based on XML language that enables communication over different applications of Windows, Linux, etc. via the Internet. SOAP defines XML and HTTP messaging protocols and also uses the range of other protocols like FTP (File transfer protocol), SMTP (Simple Mail Transfer Protocol), POP3 (Post office protocol 3), etc. SOAP provides data transportation between web services and is used for broadcasting a message. It is a way to structure data prior to transmitting it.

Q2. Mention the differences between SOAP and other remote access techniques?

The following are the differences between SOAP and other remote web services such as DCOM, COBRA :

SOAP WEB SERVICES

SOAP is the acronym for Simple Object Access Protocol.

It is a platform for transportation of data and language independence.

It is user-friendly and easy to handle.

SOAP uses HTTP protocols and data uses XML formats.

It is hard to maintain.

OTHER REMOTE WEB SERVICES

DCOM is the acronym for Distributed Component Object Model.

DCOM or COBRA doesn't provide language independence.

Web services like DCOM or COBRA are complex to handle.

DCOM and COBRA have their own binary formats for transporting data in complexity.

It is easy to maintain as compared with SOAP's.

Q3. State the syntax rule for SOAP message?

Following is the syntax rule for SOAP message-

- A SOAP message should use XML that is encoded.
- A SOAP message **MUST** use the SOAP Envelope namespace.
- A SOAP message must **NOT** contain DTD reference.
- A SOAP message must **NOT** have an XML processing instruction.

Q4. Mention the advantages of SOAP web services?

SOAP is messaging based Web service that has been around for a while and enjoys almost all the benefits of long-term use. The following are few notable advantages of using SOAP web services:

- It is a language independent platform.
- It works well in a distributed runtime environment.
- SOAP payload can be received or obtained by web services and the platform information is entirely unrecognizable.
- SOAP uses XML structures for data transmission.
- It is very simple as compared with the COBRA, RMI, etc.
- It eliminates firewall problems as it uses HTTP.
- SOAP can also be used in combination with other protocols as well.
- It is the vendor neutral.

Q5. List out the important characteristics of SOAP envelop element.

The SOAP envelope indicates the start and end of the message so that the receiver knows when the entire message has been received. The important characteristics of SOAP envelop are:

- It has a root Envelop element, which is a mandatory part of the SOAP.
- SOAP element should not contain more than one header. Also, it should appear as the first part of the envelope.
- Envelop version changes with the upgradations in SOAP version.
- We add ENV as a prefix and envelop element to SOAP envelops.
- The optional SOAP encoding is also specified using a namespace.

Q6. What are the disadvantages of SOAP web services?

As every good thing comes with some cost, SOAP also has few disadvantages attached to it. Below are few disadvantages:

- SOAP only uses XML. It doesn't take other formats like JSON into consideration.
- There is a high possibility of coupling between client and server as SOAP is based on contract.
- Since it uses XML format, SOAP is considered to be a slow platform because the payload is large for a simple string message.
- Any change in server contract is reflected in client stub classes.
- SOAP is hard to test in browsers.
- SOAP clients do not hold any stateful references to remote objects.

Q7. [what is the difference between top down and bottom up approach in SOAP web services?](#)

- **Top down SOAP web services** involves creating WSDL document to build a contract between web service and client. You can then add the required code. This is also known as contract first approach. The top-down approach is hard to implement because classes need to be written to confirm the contract established in WSDL. One of the advantages of using this approach is that it allows both client and server code to be written in parallel.
- **Bottom up SOAP web services** require the code to be written first and then WSDL is created. It is also known as contract the last approach. Since WSDL is generated based on the code, bottom-up approach is easy to implement. Client codes have to wait for WSDL from the server side to start the work.

Q8. [Enlist few frameworks in Java to implement SOAP web services.](#)

SOAP web services are usually created using JAX-WS API. However, there are some other frameworks available in Java that can be used to implement SOAP web services. These are Apache Axis, Apache CXF, Jersey, CodeIgniter, etc. These frameworks are totally different from JAX-WS API and work on Servlet model to highlight the business logic as SOAP web services.

Q9. [what are the differences between RPC Style and Document style SOAP web services?](#)

- **RPC Style** In RPC Style, WSDL documents are generated based on method name and its parameters. In WSDL document, no type definitions are present. Under this, WSDL is difficult to validate against the schema. RPC styled messages are tightly coupled.
- **Document style** web services can be validated against a predefined schema and content type. In document style, parameters are sent in XML formats. Here, the messages are loosely coupled.

Q10. [Explain the utilities of SOAP web services to its users?](#)

The following are the facilities that are offered by SOAP to its users-

- PutAddress() : This function is used for putting address in web pages. It carries address instance on SOAP call.

- PutListing() : It facilitates insertion of XML file into the webpage. This function reads the XML file, which is received as an argument and transports it to XML parser liaison. It then puts it as a parameter in the SOAP call.
- GetAddress(): It is a form of string text which determines a query name and sends the result that is synonymous with the query. The name is then sent to the SOAP call.
- GetAllListing() : This function transfers the complete list in XML format and then returns the same.

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