

Q1 SOAP fault is caused due to client or server failure state T/F with justification

- i) SOAP provides a model for handling fault arise  
ii) It distinguishes between the condition that result in a fault and ability to signal that fault to the originator of the faulty Message or another nodes. The SOAP <Body> is the place where fault information is placed

A SOAP Message can carry only one faults block.

fault is an optional part of SOAP for HTTP binding a successful response is linked to the 200 to 299 range of status code.

SOAP fault is linked to the 500 to 599 range of status code.

Q2. Give the use of SOAP actor attribute.

- The actor attribute is optional, but if it is used, it must appear in a SOAP Header Element object Its purpose is to indicate the recipient of a header element. the default actors is the message's ultimate recipient that is, if no actor attribute is supplied the message goes directly to the ultimate recipient

An actor is an application that can both receive SOAP message and forward them to the next actors. The ability to to



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specify one or more actors as intermediate recipients makes it possible to route a message to multiple recipients and to supply header information that applies specifically to each of the recipients.

Q.3. What do you mean by wire protocol and transport protocol?

→ In computer networking a wire protocol refer to a way of getting data from point to point. A wire protocol is used to describe a common way to exchange information at application level.

It generally refer to communication protocols higher than the physical layer. In contrast to transport protocols at the transport level like TCP or UDP.

Q.4. What is SOAP Message Path?

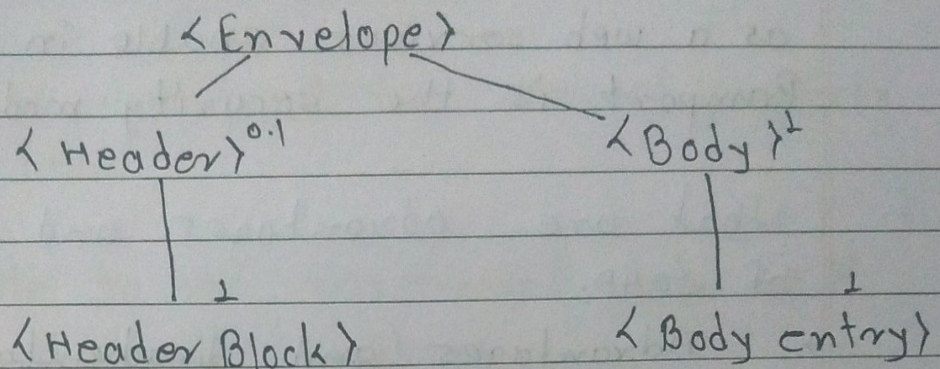
→ SOAP is based on message exchanges. Message are seen as envelope where the application enclosed the data to be sent. A SOAP message consist of an `<Envelope>` element contain an optional `<Header>` and `<Body>` element.

The content of these are application defined and not a part of SOAP specification.



A SOAP  $\langle$ Header $\rangle$  contains block of information how to message is to be processed.

The SOAP  $\langle$ Body $\rangle$  is where the main end-to-end information conveyed in a SOAP message must be carried.



Q.5. Give the use of SOAP must understand attribute?

→ The SOAP must understand attribute can be used to indicate where a header entry is mandatory or optional for the recipient to process.

If you add `must understand = 1` to a child element of the header element it indicates that the receiver processing the header must recognize the element. If the receiver does not recognize the element it will fail when processing header.

Syntax-

SOAP: `mustunderstand = "0/1";`



Q.6. Explain in short Apache Axis environment!  
 → Apache Axis 2/c can be used to provide and consume web services. It has been implemented with portability and ability to embed in mind, hence could be used as a web services enable in other software. Rampart is the security module of Axis 2.

Q.7. What are advantages and disadvantages of SOAP.

→ Advantages and disadvantages of SOAP.

- Simplicity
- Portability
- Firewall friendliness
- Use of open standards
- Interoperability
- Universal acceptance

Disadvantages of SOAP

- Too much reliance on HTTP
- Statelessness
- Serialization by value and not by references



Q.8

Write in details on soap with attachments.

→ SWA (SOAP with Attachement also known as MIME for web services) MTOM Attachments.

Set the enable MTOM request property to true

Add a file to the attachment tab as it was described above

In the part column, select the id identifier that your request body specifies.