

SoapUiTraining – Rahul Shetty

Soap Protocol

SOAP is an XML-based protocol for exchanging information between Webservices

SOAP is acronym for Simple Object Access Protocol

SOAP is a communication protocol

SOAP provides data transport for Web services

SOAP enables client applications to easily connect to remote services and invoke remote methods.

A SOAP message is an ordinary XML document containing the following elements.

Envelope: (Mandatory)

The SOAP envelope indicates the start and the end of the message so that the receiver knows when an entire message has been received. The SOAP envelope solves the problem of knowing when you're done receiving a message and are ready to process it.

- Every SOAP message has a root Envelope element.
- Envelope element is mandatory part of SOAP Message.

Header: (Optional)

Contains any optional attributes of the message used in processing the message, either at an intermediary point or at the ultimate end point.

Headers are intended to add new features and functionality

Body: (Mandatory)

Contains the XML data comprising the message being sent.

The SOAP body is a mandatory element which contains the application-defined XML data being exchanged in the SOAP message. The body must be contained within the envelope and must follow any headers that might be defined for the message.

Fault: (Optional)

An optional Fault element that provides information about errors that occurred while processing the message

When an error occurs during processing, the response to a SOAP message is a SOAP fault element in the body of the message, and the fault is returned to the sender of the SOAP message

Calculator Add Operation Soap Request

```
<soap:Envelope  
xmlns:soap="http://www.w3.org/2003/05/soap-envelope"  
xmlns:tem="http://tempuri.org/">  
  
  <soap:Header/>  
  
  <soap:Body>  
    <tem:Add>  
      <tem:a>7</tem:a>  
      <tem:b>6</tem:b>  
    </tem:Add>  
  </soap:Body>  
</soap:Envelope>
```