1. What is web service?

A web service is the API or resource available over network that can be accessed via various protocols. Web services are platform independent.

1. Different type of web services?

SOAP and REST.

1. What is the meaning of Protocol?

Protocol is the medium through which you can call web services. Also, protocols are the mediums to carry the request and response objects.

1. List few different protocols?

HTTP, HTTPS, SMTP, FTP, SOAP.

1. REST style web services use which protocol?

REST uses HTTP Protocol.

1. SOAP style web service uses which protocols?

SOAP style use 2 protocols HTTP and SOAP. We generally call SOAP over HTTP. It is kind of 2 protocol architecture. In all other cases mostly, they use only one protocol.

1. What elements contains in HTTP request?
   * HTTP Method
   * URI
   * HTTP Version which indicates HTTP version, for example-HTTP v1.1.
   * Request Header: carries metadata (as key-value pairs) for the HTTP Request message. Metadata could be a client (or browser) type, the format that client supports, message body format, and cache settings.
   * Request Body: indicates the message content or resource representation.
2. What are elements in HTTP Response?

* Status/Response Code – Indicates Server status for the resource present in the HTTP request. For example, 404 means resource not found and 200 means response is ok.
* HTTP Version which indicates HTTP version, for example-HTTP v1.1.
* Response Header: carries metadata (as key-value pairs) for the HTTP Request message. Metadata could be a client (or browser) type, the format that client supports, message body format, and cache settings.
* Response Body: indicates the message content or resource representation.

1. What is URI?

URI stands for “Uniform Resource Identifier”

This is used to identify the resource on the server hosting Web Service.

Format:

**<protocol>://<service-name>/<ResourceType>/<ResourceID>**

1. What are different request/response message formats you use is web service?

XML, JSON, text, html…etc.

1. What are different response message formats you use is web service?

XML, JSON, text, html…etc.

1. What message format used in SAOP services?

XML is the only message format in SOAP web services.

1. What message formats used in REST Services?

REST can have many more message formats compared to SOAP, this is the one of the advantage of REST over SOAP.

It uses XML, JSON, text, html and more….

1. List different method in HTTP protocol?

GET, POST, PUT, DELTE, HEAD, OPTIONS

1. Use of GET

GET is used to get the resource. Query parameters are appended to the URL itself. There is no specific HTTP Body is needed in the case.

1. What is difference between PUT and POST?

POST is used to create or insert a new resource. HTTP Body is needed and you need to provide a JSON or XML object in Body.

PUT is similar to POST but it will not create a new resource when that is already exist, if exists it updates the resource.

1. Use of DELTE

DELTE is used to delete the resource.

1. What are SOAP message parts?

SOAP envelope, SOAP Header, SOAP Body.

1. What is SAOP envelope?

Envelope is the top parent element of SAOP message, SOAP Header and Body exists inside of SAOP Envelope.

1. What is SOAP Header?

SOAP header is used carry or hole security information to call web services, like authentication and authorization.

Like user credentials username password and permissions like User or Admin etc.

1. What is Authentication?

Authentication is the process of verifying user credentials like username and password whether he is a valid registered use to access the web service.

1. What is Authorization?

Even you are authenticated that does not mean you have access to all web services, So there is one more level of security called authorization where it checks the roles of the user logged in and see if the user has permission to specific service.

1. What is SOAP Body?

SAOP body passes the actual data needed to call web services in the XML format.

1. What is HTTP Header?

It is similar to SOAP HEADER but not passed as key value pairs. But there is no concept of envelope here. As Envelope needed in SAOP services only.

1. What is HTTP Body?

It is similar to SOAP body. But there is no concept of envelope here. As Envelope needed in SAOP services only.

1. What tools you used to test SOAP Services?

SOAPUI

1. What tools you used to test REST Services?

The Postman extension for Chrome.

1. What is payload in REST?

The data sent in Body of the request/response is called Payload.