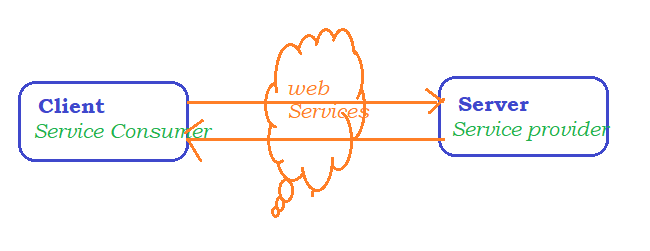
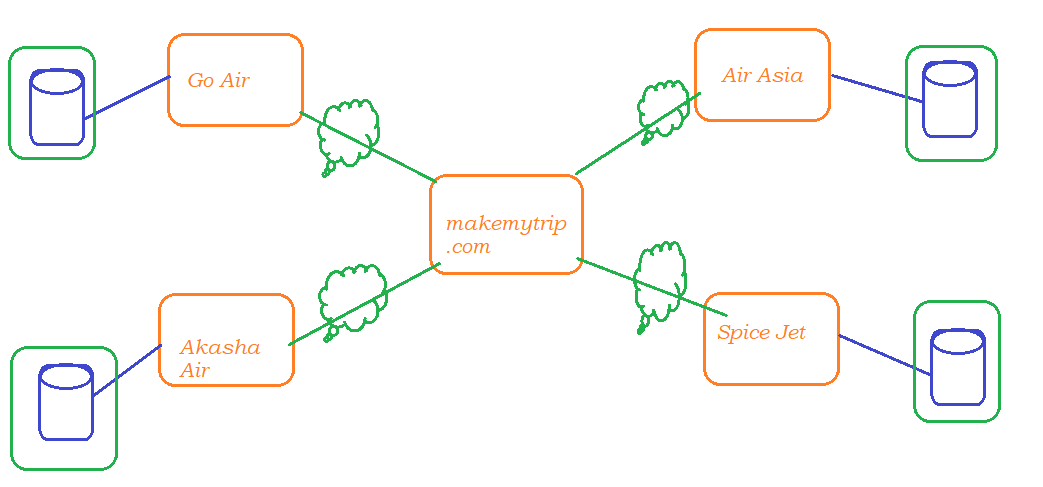
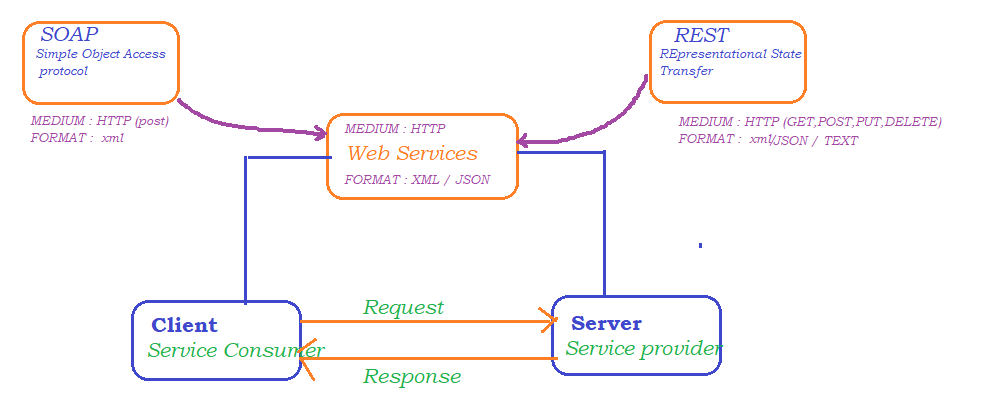
Web services Automation with REST

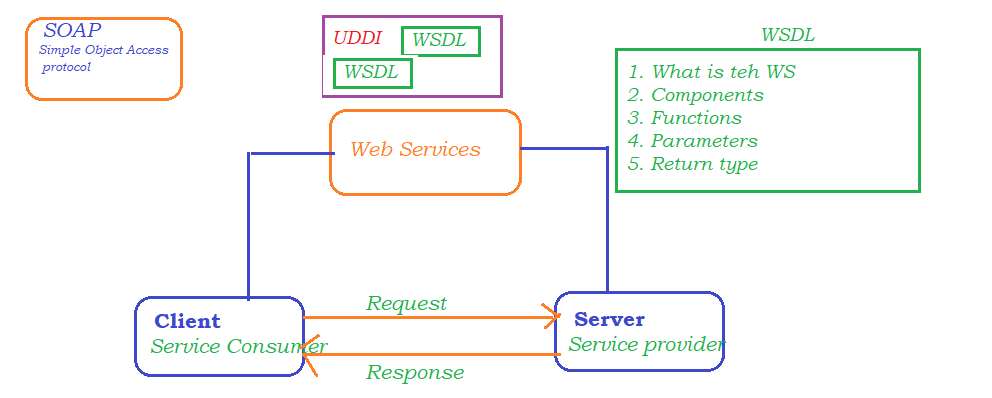


## High level architecture :





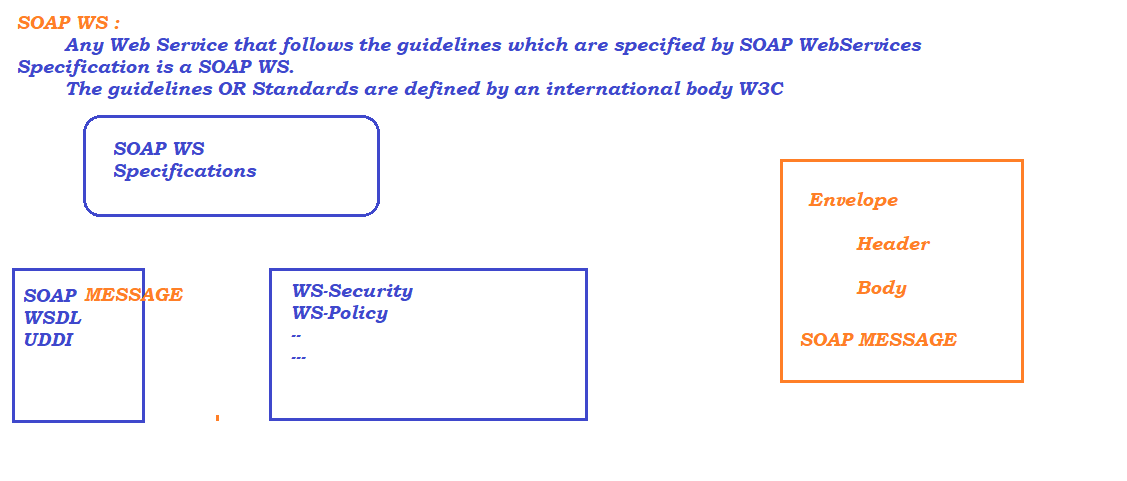
UDDI AND WSDL



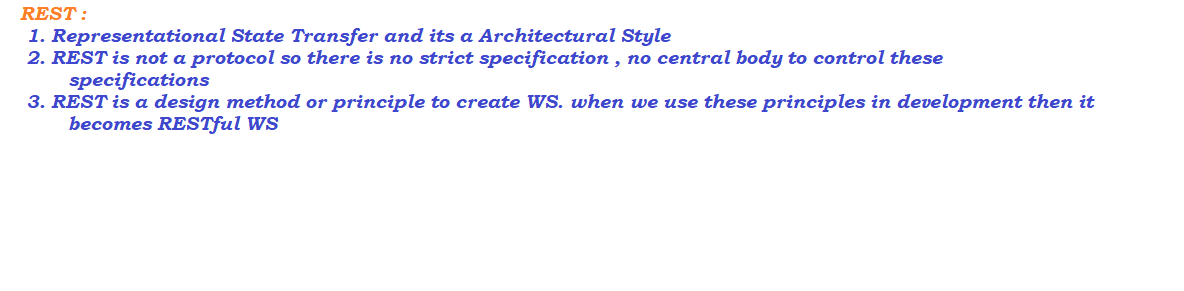
## W3C : (http://www.w3.org)

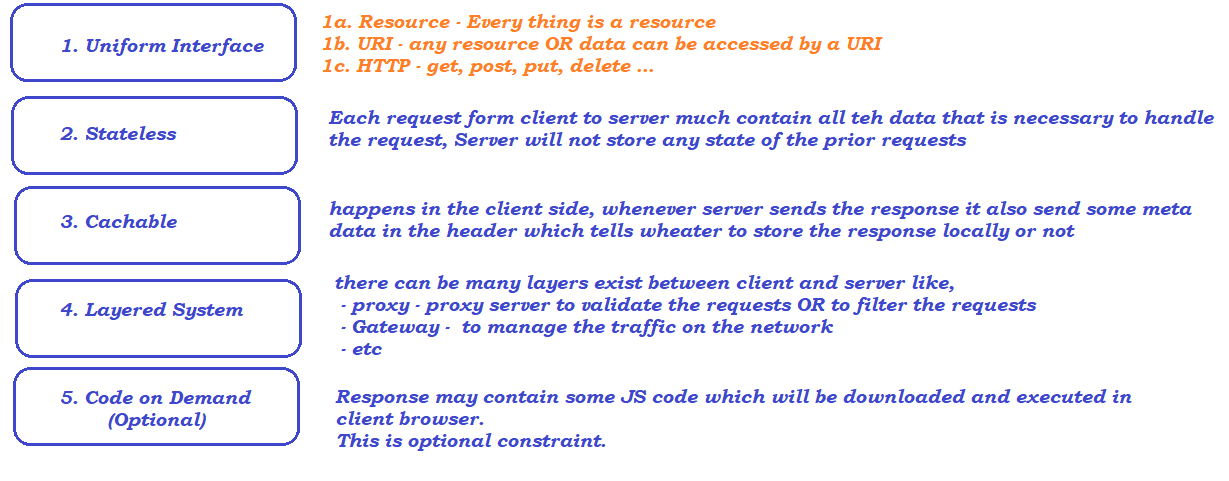
An international Community that develops Open Standards for WWW

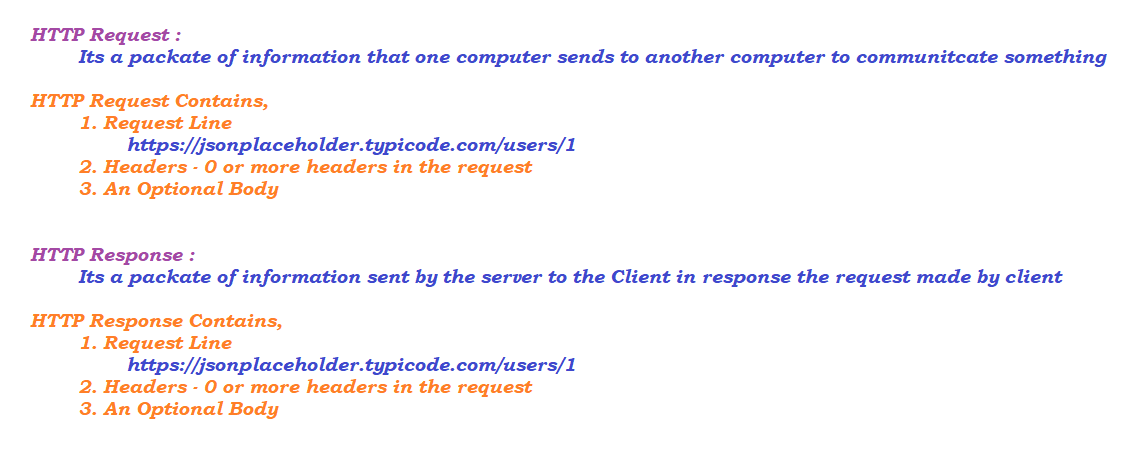
SOAP ARCHITECTURE



REST ARCHITECTURE







# Rest API Elements :

# Resource :

Information stored on a Server, which can be requested by Client later

# Resource Identifier :

Many resources available in the server, to identify the resources uniquely we go with Resource identifier

# Representation:

A resource is the actual data, Now this data can be represented as XML, HTML, or may be simple text

# Composition of URI :

URI = Scheme “://” authority / PATH

URI = Scheme “://” authority / PATH ? query

Scheme – protocol – http, https, ftp

Authority – main domain

path

query

# HTTP METHOD :

* HTTP Methods are used to perform Operation with REST API
* CURD Operations can be performed using http methods

HTTP GET :

* Mainly used to retrieve the information from the server
* Status Code :
  + 200 if resource found
  + 404 if resource not found
  + 500 if authentication errors

HTTP POST :

* Post methods are used to create a new resource into the collection of resources
* Status Code
  + 201 / 203 Created successfully

HTTP PUT :

* Update the existing Record
* main difference between the POST and PUT is POST is POST requests are made on resource collections and PUT Request are made on a single resource
* Status Code
  + 200 Created successfully (may vary)
  + 404 if resource not found
  + 500 if authentication errors

HTTP Delete :

* Used to delete the Record
* Status Code
  + 200 success code (may vary) / 203 / 204

Parameters

Path parameter [ / ]:

Variable parts of the URL path. These are typically used to point to a specific resource within a collection such as,

<https://jsonplaceholder.typicode.com/>

<https://jsonplaceholder.typicode.com/posts>

https://jsonplaceholder.typicode.com/posts/1

Query parameter [ ? ] :

Query parameter is used to filter / Sort the resources

<https://www.makemytrip.com/flight/search?itinerary=DEL-BLR-23/11/2022&tripType=O&paxTy>

API Tests using Post Man

* Download the latest software from
  + <https://www.postman.com/downloads/>
* Install the postman app

Using PostMan

* Creating Workspace
* Created Project
* Request
  + GET
  + POST
  + PUT
  + DELETE
* Parameters
  + Path parameter
  + Query parameter
* How to use output of one API in another API
  + Store the response output in a global variable

let response **=** pm.response.json();

pm.globals.**set**("uuid123", response.uuid);

* + use double curly braces with variable name in another API {{variable\_name}}
    - [http://httpbin.org/get?name=Aravinda&id=ab007&uuid={{uuid123}}](http://httpbin.org/get?name=Aravinda&id=ab007&uuid=%7b%7buuid123%7d%7d)

Trello – Web Automation

* is a project management application which allows user to create a project and maintain the day today activities on a daily basis
* Setup a Account
* Generate key and token to execute the apis
* <https://developer.atlassian.com/cloud/trello/guides/rest-api/api-introduction/#boards>
* Generate Key and Token
  + <https://trello.com/power-ups/admin>
  + click on new
  + provide the necessary information
  + generate key and token

### API Reference

<https://developer.atlassian.com/cloud/trello/rest/>