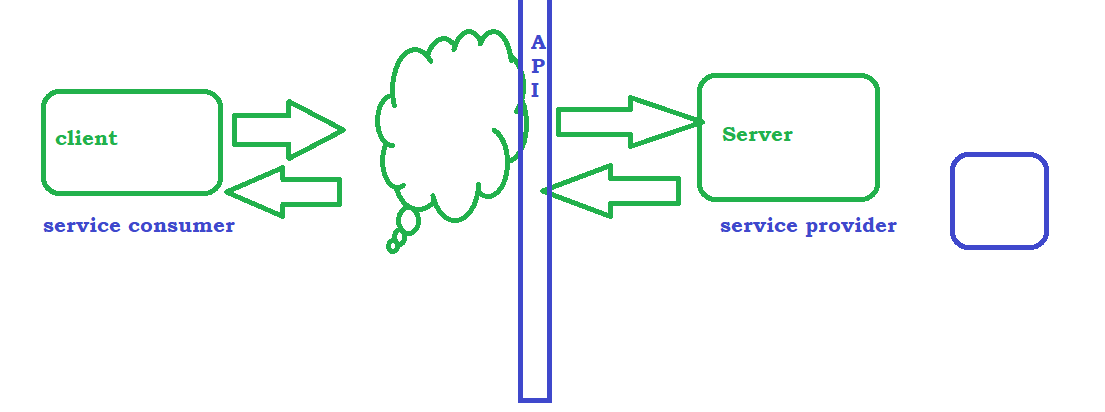
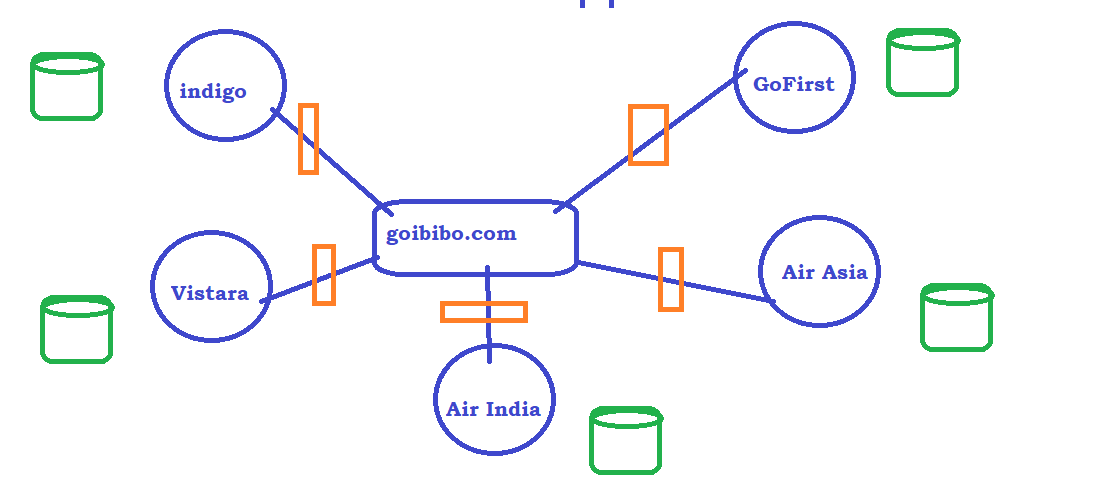
Web Services :

Services available over the Web, these web services are provided by Service Providers.



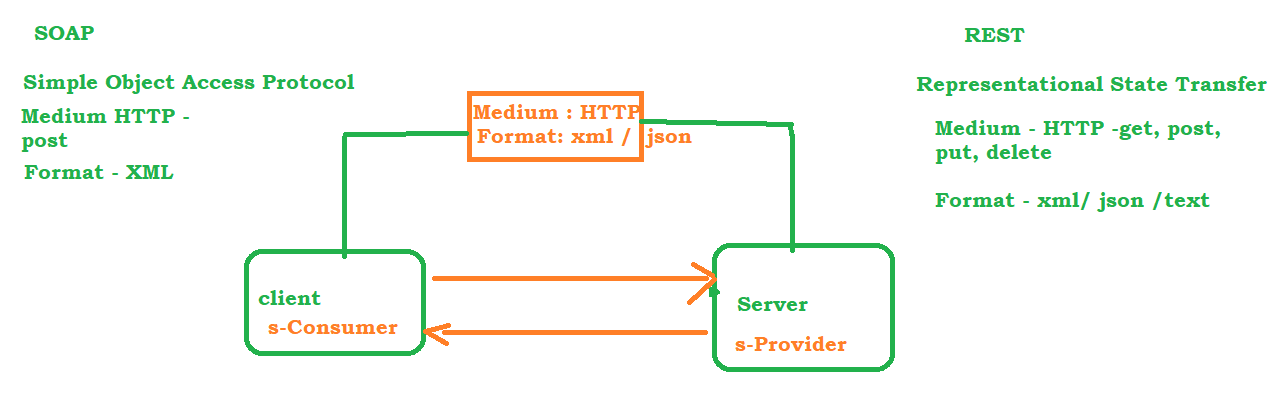
Communication :

We Use Language to communicate with other person, We use GUI to communicate with PC / Laptop, similarly from one machine to another machine if we want to communicate then we use API

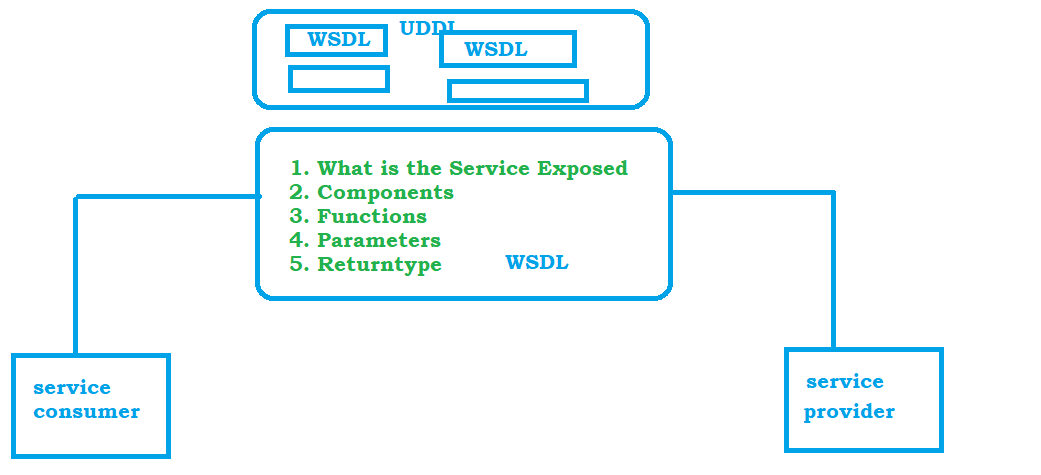


# Types :

* SOAP
* REST



SOAP : WSDL and UDDI

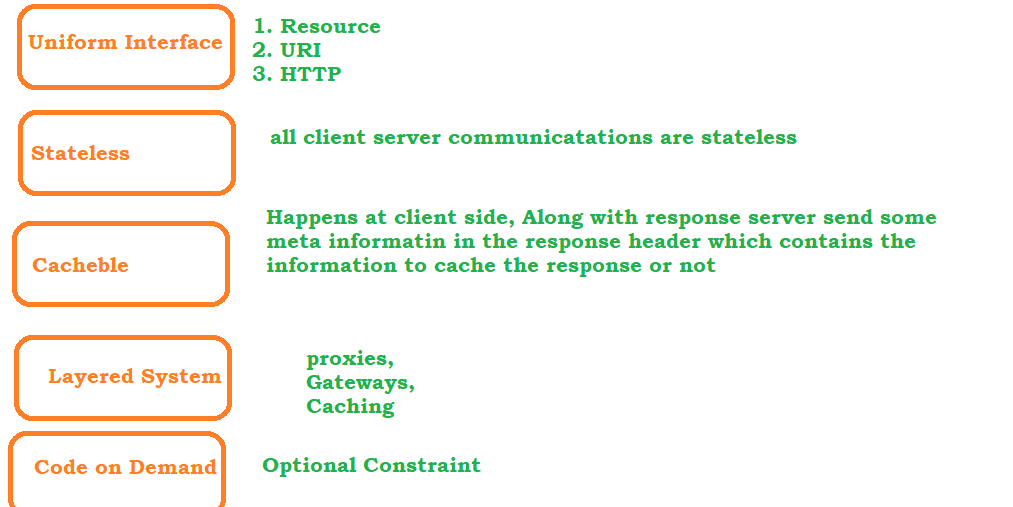


SOAP –



REST

Any WebService that communicates / exchanges information between 2 application using REST principles area called RESTful WebServides



# HTTP Request –

its a packet of information that one computer send to another

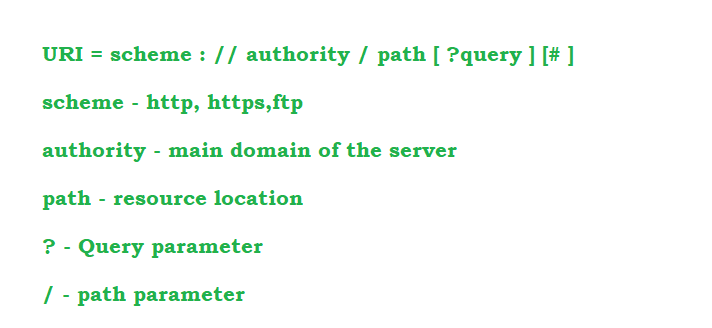
* Request Line Http method (GET, POST) , Request URI, HTTP Protocol
  + <https://jsonplaceholder.typicode.com/todos/2>
* Header / Headers - 0 or more header information which contains additional information (user credentials )
* Optional Body – Its a part of HTTP Request where additional content can be sent

# HTTP Response –

its a packet of information sent by the server in response to the request made by client.

* Request Line Http method (GET, POST) , Request URI, HTTP Protocol
  + <https://jsonplaceholder.typicode.com/todos/2>
* Header / Headers - 0 or more header information which contains additional information (user credentials )
* Optional Body – Its a part of HTTP Request where additional content can be sent

# URI



HTTP Methods

* C – Create U – Update R- Read D - Delete operations
* GET – to read , 200 status code with response
* POST – is used to create new record in the collection of resources –201SC
* PUT – is used to update the existing record.
* DELETE – delete the record

Manual Testing of APIs

## PostMan :

* go to <https://www.postman.com/downloads/> and download the software
* install the software on your machine

Trello

1. Register to Trello and login to application
2. Create a board of your own - Create list – Card etc
3. Refer the official API Documentation <https://developer.atlassian.com/>
4. Navigate to <https://developer.atlassian.com/cloud/trello/guides/rest-api/api-introduction/>

key - c5f676759b86029624f7dcb31ccf655e

token - 9b60bd7325defc221aa0203822765f426ecb134adcf46f7ca823c569ced3a2f3

PostMan – Variables

# Global Variables – Accessible throughout the Collections

# Environment Variables - Specific to Project

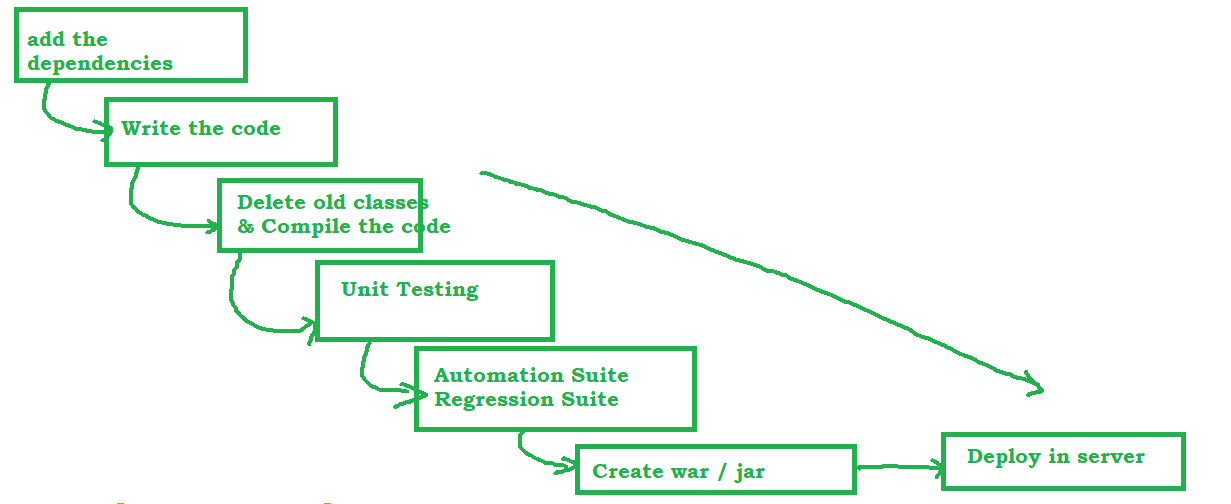
# Tests

# Pre Request Script

GIT HUB APIs

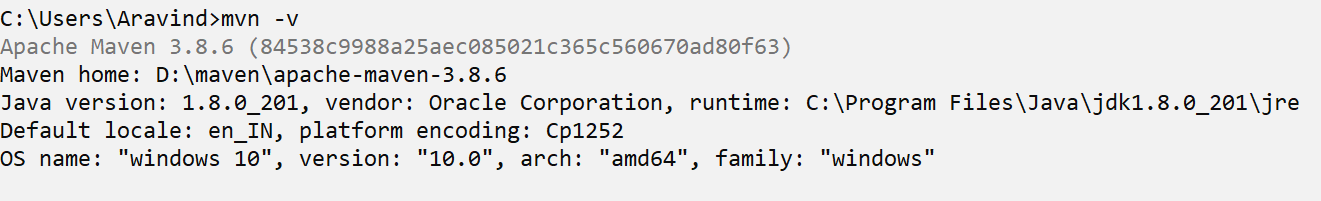
* go to github.com
* click on signup and create a account
* go go developer website <https://docs.github.com/en/rest>
* We should have authentication token to execute the api’s
* Go to your Account -> Settings -> Developer Settings -> Personal Access tokens -> Generate the token

Maven – Setup and Intro



* Download and unzip <https://maven.apache.org/download.cgi>
* set the Environment variables
* MAVEN\_HOME - D:\maven\apache-maven-3.8.6
* M2 -D:\maven\apache-maven-3.8.6\bin
* PATH - D:\maven\apache-maven-3.8.6\bin

Open command prompt and type mvn –v

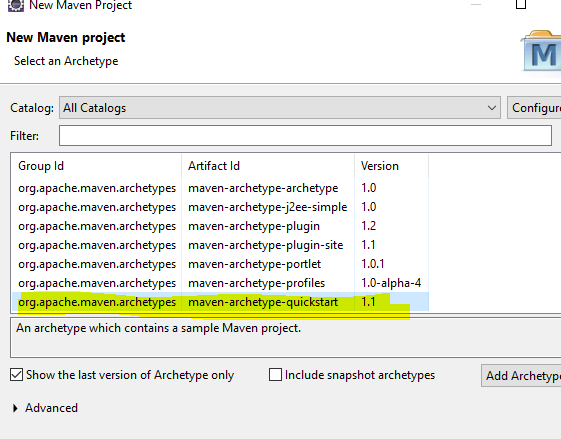


# POM.xml

Pom file is the heart of Maven project, which contain all the information about the project.

pom file holds all the required plugins and dependencies for the project

Configure Eclipse with Maven and REST

* Create a Maven project
* 
* <https://mvnrepository.com/artifact/io.rest-assured/rest-assured>
* <https://mvnrepository.com/artifact/io.rest-assured/json-path>
* <https://mvnrepository.com/artifact/io.rest-assured/xml-path>
* json-schema-validator
* spring-mock-mvc

# Rest Assured Methods :

* given() – first method to be called, which holds the api information like header, parameters, cookies
* when() – holds the type of request, get, post, delete, put...
* then() – holds the validation code
* extract() – to save the response for further processing

# Different ways / Style we can write REST code

1. BDD style – give when then format
2. RestAssured Style
3. given expect when format

# Automate Get Request

# Automate POST Request

# Automated DELETE Request

# Extract the Response from the Request.

# Log the Request and Response

<https://github.com/rest-assured/rest-assured/wiki/Usage>