

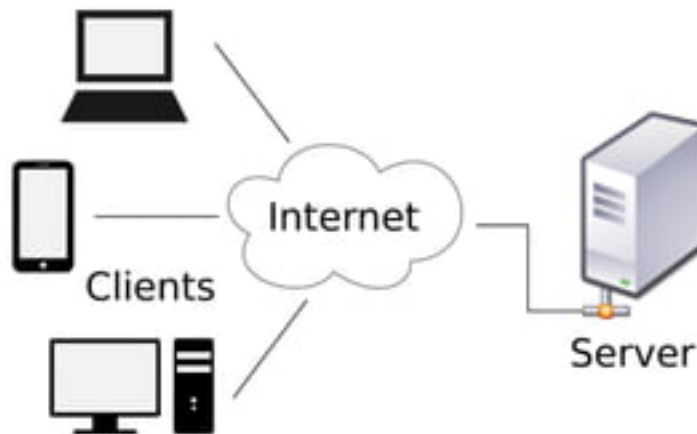
API Testing

Introduction

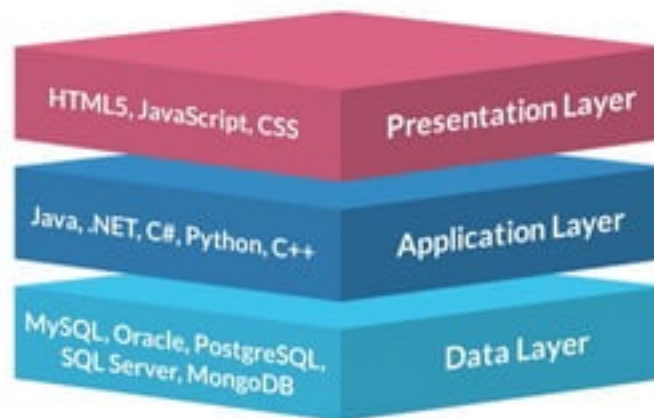
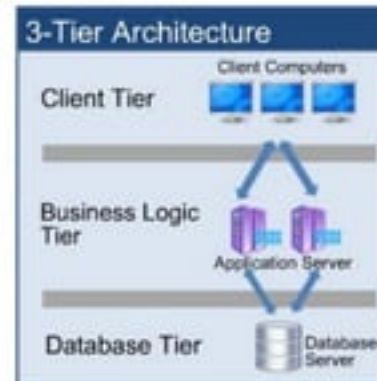
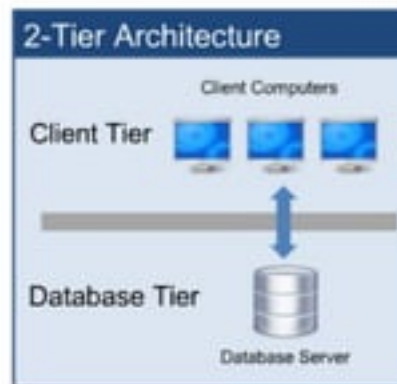
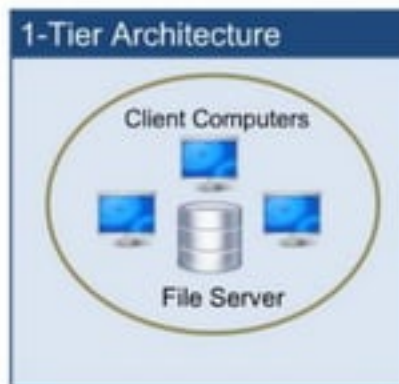
What is Client & Server?

A client is a computer hardware device or software that accesses a service made available by a server. The server is often (but not always) located on a separate physical computer.

A server is a physical computer dedicated to run services to serve the needs of other computers. Depending on the service that is running, it could be a file server, database server, home media server, print server, or web server.

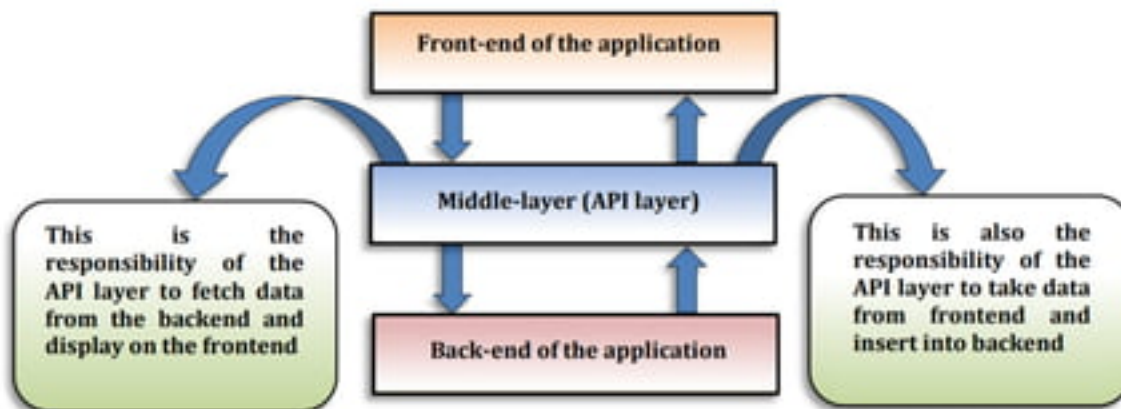


Client/Server Architecture



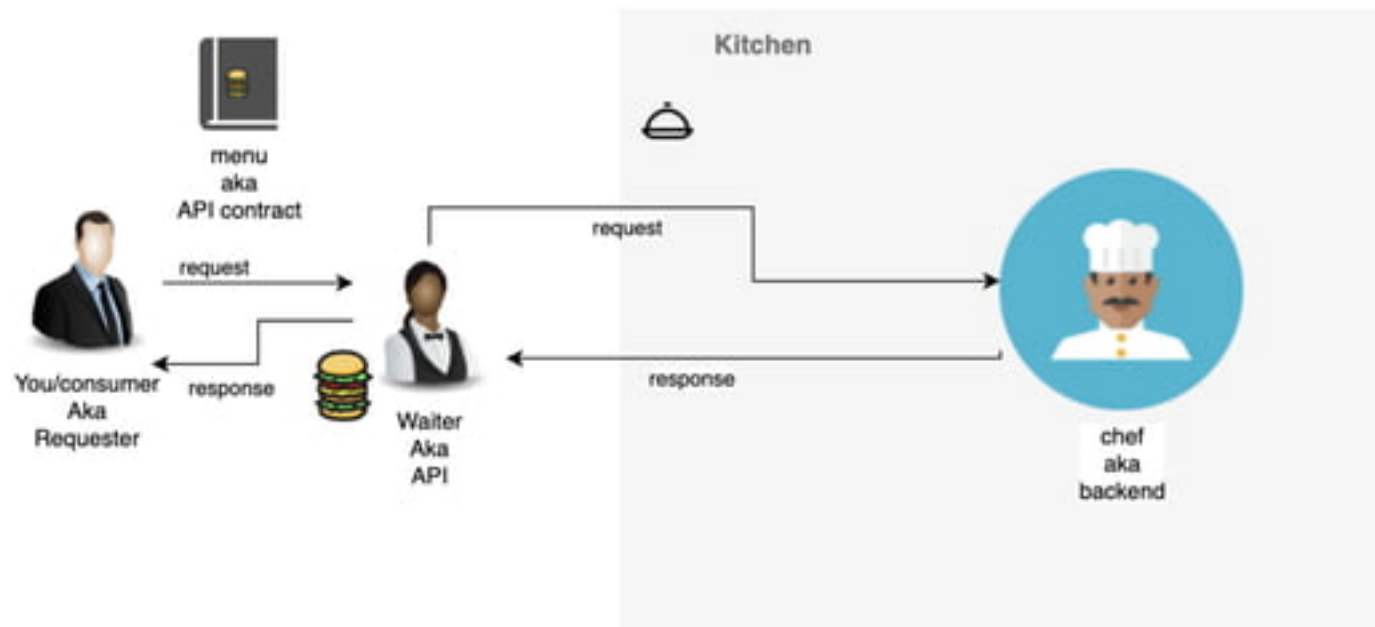
What is an API?

Application Program Interface (API): Is the way of communication between two applications where applications may differ in their platforms or in terms of technology.

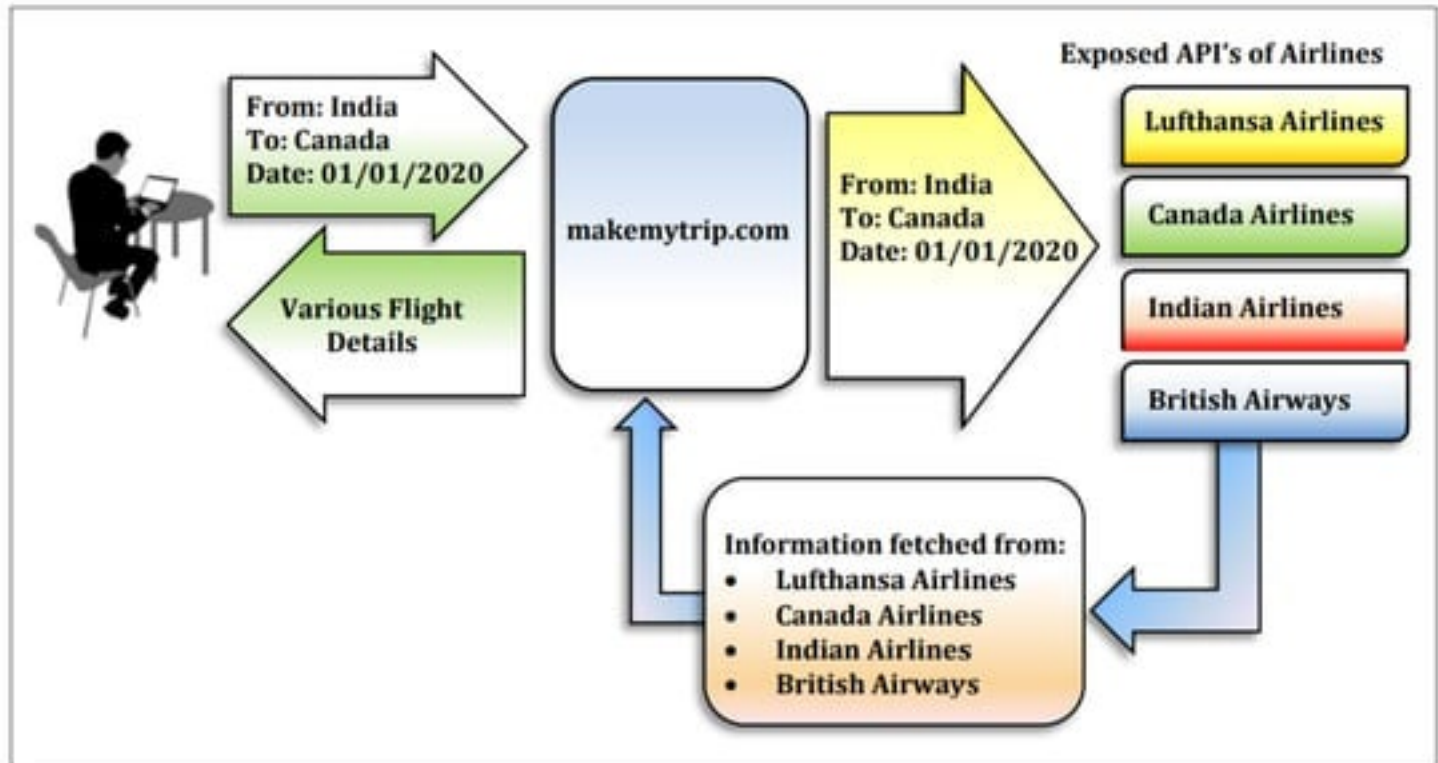


**** API is a way of communication between two layers.**

API - Restaurant analogy



Makemytrip example:



Types Of API

There are two types of API's,

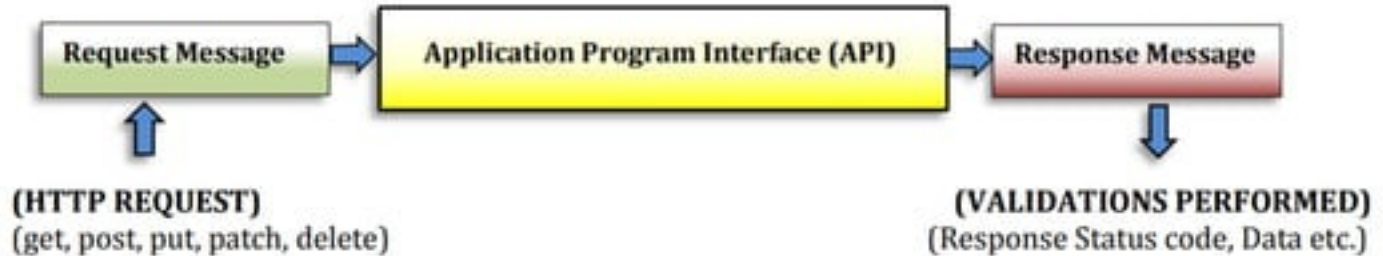
1. Simple Object Access Protocol (SOAP)
2. REST (Representational State Transfer).

Both are the web services.

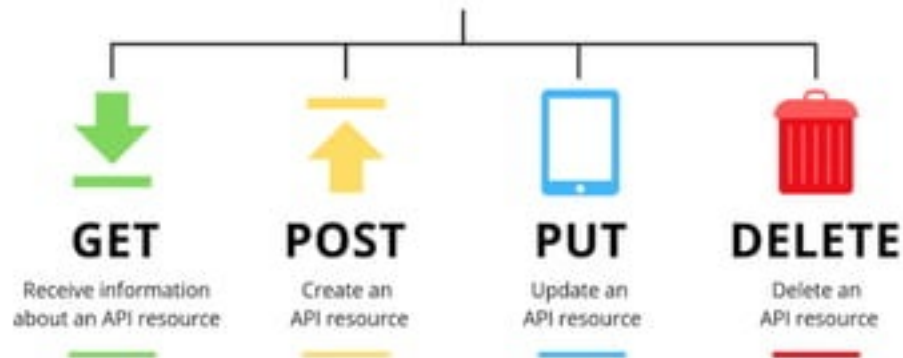
API Vs Webservice

- Web Service is an API wrapped in HTTP.
- All Web Services are API but APIs are not Web Services.
- A Web Service needs a network while an API doesn't need a network for its operation.

Rest API HTTP Methods



REST API Methods



http Vs https



Helen

HTTP

http://www.example.com

password: abc123



Without password encryption
Hacker see "abc123"



Carol

HTTPS

https://www.example.com

password: abc123



With password encryption
Hacker see "xyaerXzabc"

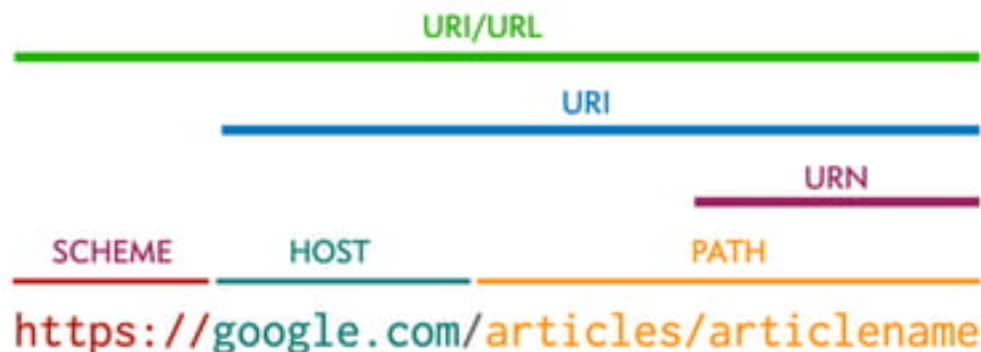


Terminologies

URI – Uniform Resource Identifier

URL – Uniform Resource Locator

URN – Uniform Resource Name



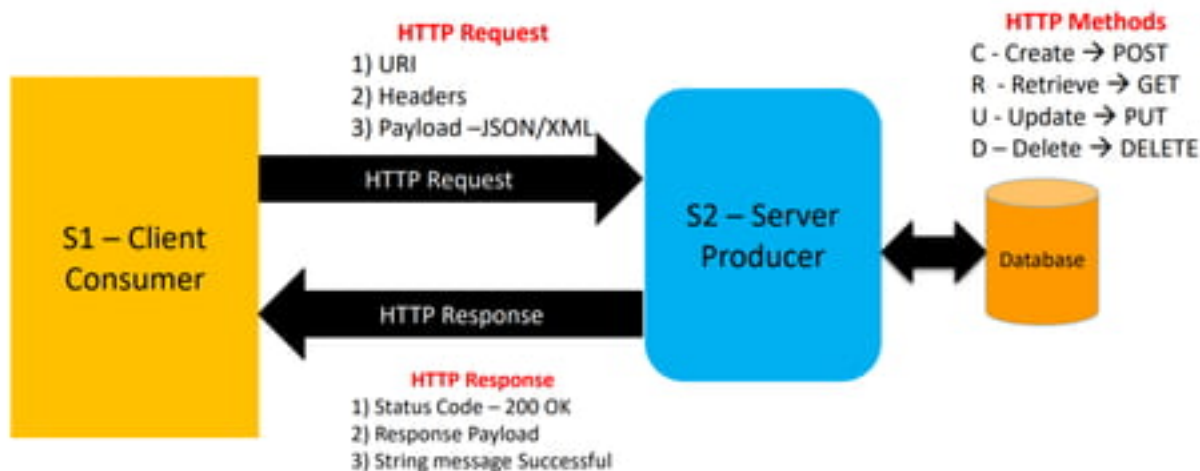
Feature & Resource

'**Feature**' is the term used in manual testing to test some functionality and similarly '**Resource**' is the term used in API Automation testing referring some functionality.

Payload

payload means **body in the HTTP request and response message**.

- Request Payload
- Response Payload



Rest API Examples

1. Payment Gateways
2. Google Maps
3. Twitter
4. Facebook
5. Linked-In
6. GitHub