PLEASE USE API TESTING COURSE CHAT

04/17/2018  
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WHAT IS API.  
HOW API WORKS  
HOW TO TEST API MANUALLY

POSTMAN

API -> APPLICATION PROGRAMMING INTERFACE  
WEB SERVICE  
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CLIENT -> -> -> SERVER(API SERVER)

CLIENT <- <- <- SERVER(API SERVER)

API is a middle man between database and client.

2 TYPES API:  
1) SOAP  
2) REST

REST api is much more popular than SOAP.

RESTFul Api / RestFul WebServices

API is an application but without UI.

REST-ASSURED LIBRARY IN JAVA.  
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2 TYPES OF API:  
SOAP VS REST

SOAP -> SIMPLE OBJECT ACCESS PROTOCOL.

It used XML format for request and response.

API enables communication between systems.  
API enables secure way of sharing data and functionalities.

REST and SOAP

DATA FORMATS USED BY APIs

XML, JSON

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JSON(JavaScript Object Notation) is a lightweight of XML.

{  
“id”:1,  
“name”:”Kevin”  
}

KEY+VALUE FORMAT.

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JDBC API  
SELENIUM API

CODE -> SELENIUM API -> BROWSER  
CODE -> JDBC -> DATABASE

IF API comminication happens through internet ,  
we can also call it web service.  
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REST API is enabling communication between systems

HOW DO WE TEST APIs?

As we know in Api, there is request and response communication happens.

As testers, we send a request to an API and verify the response.

request -> types of requests in RestApi:  
  
-> GET request -> READ data like SELECT in sql  
-> POST request -> is to CREATE data  
-> PUT request -> UPDATE data  
-> DELETE request -> DELETE data

How and where are you sending request?

A REST API will have endpoints/urls/uris

https://www.google.com/search?

Builders of API will create public URLs. and Requests are sent to that url.

Swagger is a tool for API documentation

UNDERSTANDING API ENDPOINTS/URLS

BASE URL:  
/MethodName

http://petstore.swagger.io/v2/swagger.json

--> http://petstore.swagger.io/v2/swagger.json/pet  
-> /store/inventory

I make sure that all Endpoints/Urls of Rest api work as expected. I send GET,POST,PUT or DELETE requests and validate the response.

We have Swagger for API documentation.  
It gives description of API endpoints and how to use them.  
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When a API developer programs an API url,  
he will decide if that url works with GET,OR POST,or PUT, DELETE requests.

http://myapp.com/api/prices

http://myapp.com/api/

GET -> http://myapp.com/api/prices

POST -> http://myapp.com/api/prices

REST API:  
GET -> methods/url that are mapped to them  
POST  
PUT  
DELETE  
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POSTMAN  
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Is a RESTAPI client tool that helps to test Rest API  
urls.

It is popular for both developers and testers.  
Testers use it for manual testing.  
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http://34.223.219.142:1212/ords/hr/employees/

http://34.223.219.142:1212/ords/hr/departments

ORACLE DATABASE -> SAMPLE DATABASE -> HR

ORDS -> ORACLE DATA SERVICES -> RESTAPI -> HR DATABASE  
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When I send a GET request to http://34.223.219.142:1212/ords/hr/departments  
Then response status code must be 200  
And I should see departments data in json format

When I send a GET request to http://34.223.219.142:1212/ords/hr/employees/101  
Then response status code must be 200  
And I should see Neenas information in Json format

httpstatuscodes.com  
First thing you verify is response status code  
Then you verify response BODY.json/xml

200 -> OK  
400 -> CLIENT'S ERROR  
500 -> SERVER/API'S ERROR