API Testing

<https://reqres.in/>

SOAP-WSDL and UDDI, only post, language-xml

Rest API-post,put,get and delete, language-json/xml/html/text

WSDL-web service description language

UDDI-universal description discovery and integration

URL-uniform resource locator

http-protocol

domain

URI-uniform resource identifier-contains path parameters

Query string-? Post is te query string to filter the data

HTTP Request:

URI,Headers,Payload-json/xml

HTTP Response:

Status code-200ok,Response payload,String message successful

<https://reqres.in/api/users?page=2>

api/users-path parameters

?page=2-query parameter

HTTP Requests:

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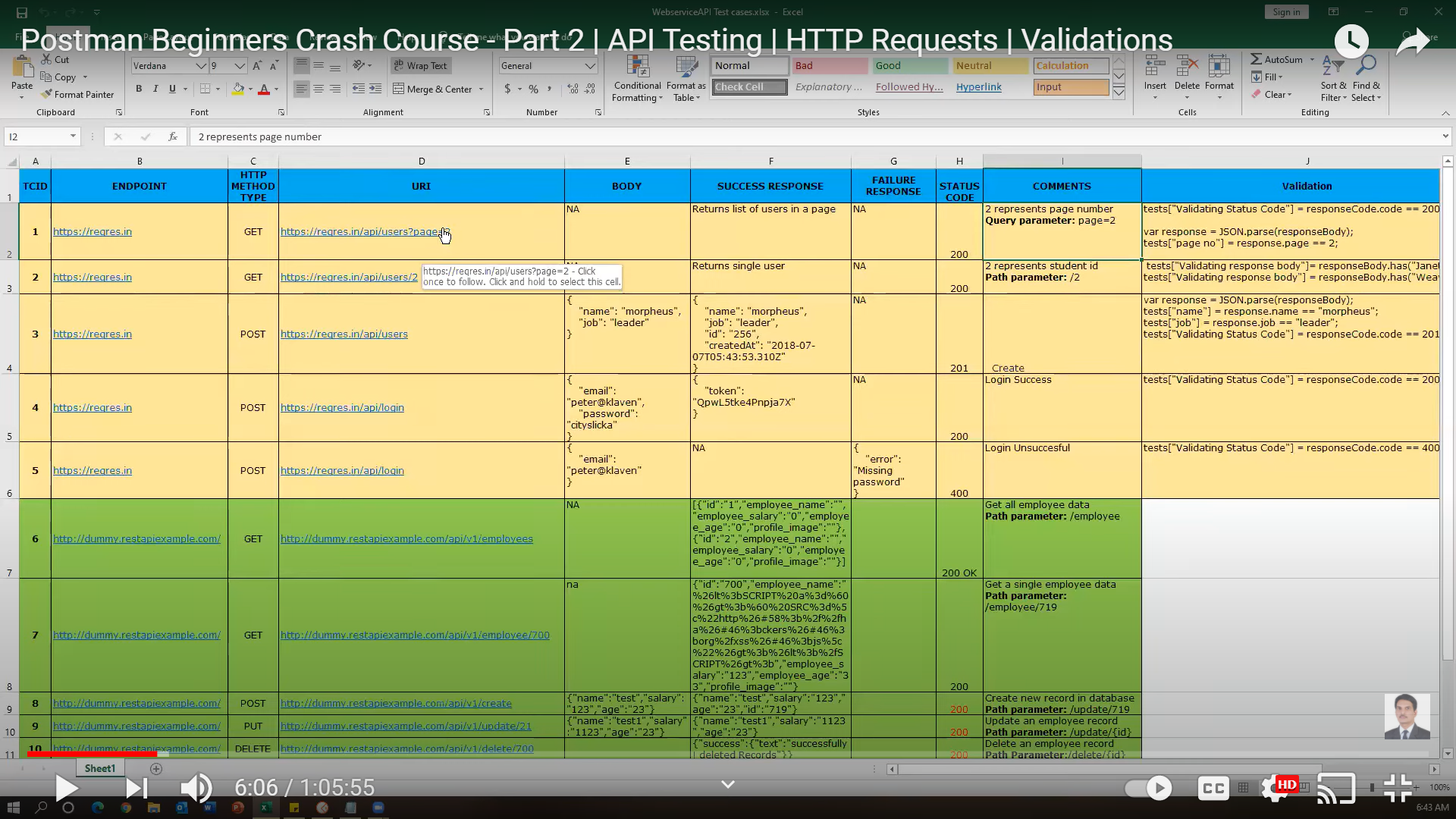
GET

POST---🡪Request body/Request payload

PUT--🡪 Request body/Request payload

DELETE

Every request will get you some response in JSON/HTML/XML etc format



-🡪To get request only we can use browsers

🡪Data Driven Testing

🡪How to Run Collection

🡪Export/Importing collections

----in postman we can create data in json format or in CSV format

-----In postman Collection is called **suite** and each request is called **test case**

**------Using Runner we can execute all the request as one suite**

How to run collection in command prompt

-Export collection to local system

-install Node.js(npm)

-node -v and npm -v

-install newman

-npm install -g newman

To generate html report

npm install newman-reporter-html

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How many methods we can run collection through command prompt?

Method-1

newman run <exported collection file.json>

Method-2-Generating html report

newman run <exported collection file.json> -r html

Method-3

Executing collection remotely

-share collection and get the url

newman run <shared link url of collection> -r html

**CREATE YOUR OWN API:**

1.install node.js

2.npm comes with node.js

3install json-server

npm install -g json-server

4.create info.json file in your directory

5.Run below command to make your API up and running

json-server info.json

**POSTMAN VARIABLE:**

1.Collection variables

2.Environment variables/Global variables

**WORKFLOW:**

postman.setNextRequest(“request name”);

postman.setNextRequest(“null”);

**HOW TO CHAIN API REQUEST:**

API req1🡪response

API req2🡪response

**AUTHORIZATIONS:**

Basic Auth:

<https://postman-echo.com/basic-auth>

user name: postman

password:password

API Key:

Get Request: <https://api.openweathermap.org/data/2.5/forecast/daily?q=Delhi&cnt=1...>API Key/appid: fe9c5cddb7e01d747b4611c3fc9eaf2c

Bearer Token / OAuth 2.0

API Reference URL: [https://developer.github.com/v3/repos/](https://www.youtube.com/redirect?redir_token=QUFFLUhqbkxveE40ekNlSGxOWnpGTDhfcWpJT3l1bUxrUXxBQ3Jtc0ttYnRMSmUyOENCeG42RklRY0wwY1dIZHRaZkFUaGFtSVkwYktKOVNBR2dHcWdHWDY2ZkE3Yk5kN3lRd251WWhhbXB1MlNEblBSM3dhdjNHRjZxdlEtOF9pVjlUWWVxdHlkYWFjZWpyeXhhZUlnbEQ5cw%3D%3D&q=https%3A%2F%2Fdeveloper.github.com%2Fv3%2Frepos%2F&v=tN_-16XP7BQ&event=video_description) Post Request: [https://api.github.com/user/repos](https://www.youtube.com/redirect?redir_token=QUFFLUhqbkZXUDg4RGd1cU1fbmxEYmplUFNPU1QzVkhTZ3xBQ3Jtc0tuWUNDelZ0UGNsdlV0TlZyaGNJcG40TVZSSk1HeV9qVkpqazQ4S2pwTVU4RGt0QjlkenhGcGVySXdRcVhVN0RPak80YXJ0cFYzeF9IYzVQd2ZUM29SbUJJdXQyU25SNDFOVlo4Tml1RVlPT3h2ZXJSRQ%3D%3D&q=https%3A%2F%2Fapi.github.com%2Fuser%2Frepos&v=tN_-16XP7BQ&event=video_description)

Topics: -------------

1) Postman Scripting/ Response Validations

2) Script Execution Order

3) Single/Multipart Files Upload & Download.

Notes: -------------

Pre-Request Script -- Request---Response-- Test Script

Collection

Folder

Requests

Postman Scripting using JavaScript and Chai BDD

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Reference Link : [https://learning.postman.com/docs/wri...](https://www.youtube.com/redirect?q=https%3A%2F%2Flearning.postman.com%2Fdocs%2Fwriting-scripts%2Ftest-scripts%2F&redir_token=QUFFLUhqbjM1V3VxMjdmZWE0V3YtdDI0bVRzQXNrQmJQQXxBQ3Jtc0tsTFdQNTl2VF9seG1ZcnpLSm05RmM0RS1zTWZEX3lDb3gta19HdFM2TnZWcWRydFBIc1VFd2ZWSkxySmNsbEFfaXZuQU1NakdxYTNOWkhvanM3NVI3WWdlVVRYRlRmZDc4SzN6dmdNYUZzSFFYQ1Yzdw%3D%3D&v=lcogL0lpPJA&event=video_description)

File Upload /Download using Rest API

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Demo App: <https://github.com/pavanoltraining/spring-boot-file-upload-download-rest-api.git...>

Pre-Requisite: Install Java & Maven on Windows

1) Open Windows Command Prompt and Open Directory:

2) Run Below commands:

java -jar target/file-demo-0.0.1-SNAPSHOT.jar

App URL: [http://localhost:8080](https://www.youtube.com/redirect?q=http%3A%2F%2Flocalhost%3A8080&redir_token=QUFFLUhqbmtEY2FCNlgyNENpNmcwVmZRYzJ6WnhlS0xSUXxBQ3Jtc0ttdk1KUmFIQzBUamZ2MlRfdVpMVXlZM25JSXVpTkNyV3Q0Zy1YOHJiOGZ6ODdNZ3FseEZpbHlSdGlTX2YxQWg0Q3ltWERNSzBuQjZwMVJybWxRUWNDajUyc2xhNHB6aVZZeUJQNWptODAtM2U1WkdGMA%3D%3D&v=lcogL0lpPJA&event=video_description)

Single File Upload:

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POST: [http://localhost:8080/uploadFile](https://www.youtube.com/redirect?q=http%3A%2F%2Flocalhost%3A8080%2FuploadFile&redir_token=QUFFLUhqbUxPdzZCRGpZRVUtSHNIRW9RR2ZZOFB6UzBlQXxBQ3Jtc0trVTdJbGRBeGpaQ19hLVNlWkhwREhod21BaWZiVkhjSTk2WTY2NUZVeTMwWG40ci1pV2FVYnJlU2JqS0Z6anZ1LWJ6a1c4c1hGcy1NRTY2TEFLdl82Tmtyb2habDI5aXFzbnlEWnRvREZDWWdSM1c3aw%3D%3D&v=lcogL0lpPJA&event=video_description)

Multiple File Uploads

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POST: <http://localhost:8080/uploadMultipleFiles...>

Download File

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GET: [http://localhost:8080/downloadFile/Te...](https://www.youtube.com/redirect?q=http%3A%2F%2Flocalhost%3A8080%2FdownloadFile%2FTestFile1.txt&redir_token=QUFFLUhqbWFEUzlobkUta2YwLVFvbEJaZXhmckhDcVFuZ3xBQ3Jtc0treVI5OHFRVk90WjdrQWVzcnFUN1RibVhabEU2STJPVHA4b2d5dTIyQXgtTjlWN2JsTU1XZWsyekJ5N0FyeTlOckFhcjAySlYwWkZUM0NYZm15Mjlzd2RqX09TV0ZlV1l6V05DM0VOMU1WTG9WdDhSZw%3D%3D&v=lcogL0lpPJA&event=video_description)

Topics -----------------

1) Export & import collections

2) Documenting Collections

3) Run options

4) Postman Integration with Jenkins