1. Which APi testing Tool you have used?

PostMan & RestAssured

1. Types of API testing ?
2. Soap WebServcie API testing
3. REST WebServcie API testing
4. What is API ?

Application programing Interface, testing interface between two application

Testing the application in business layer is called API testing , with out browser

EG : Rest webservcie is API testing

Soap WebServcie is API testing

1. How many years of Experience in API project?

2 years

1. Where did you used API in your Previous project & Purpose of the API?

Product , contacts , Quote , Case

1. How many you have tested

20 RestFull API

1. Can you Write or list Out few API in your Previous Project

Product

Get <Http://autodesk-test-env.com:8084/products>

Post <Http://autodesk-test-env.com:8084/products/addproduct>

Put patch ,delete [Http://autodesk-test-env.com:8084/product/{productID}](Http://autodesk-test-env.com:8084/product/%7bproductID%7d)

Get <Http://autodesk-test-env.com:8084/products>?name =hplabtaop

1. Write on POST API request in your previous Project

EG:

Post <Http://autodesk-test-env.com:8084/products/addproduct>

{

"ProductNAme" : "name"

"SerailNum" : 123

"Manfauting date" : ""

"unitPrice" : 2000INR

"Qty" : 10

}

1. Write one API response in your previous Project

{

"name": "name",

"msg": "successfully added",

"id": "625",

"createdAt": "2020-11-02T08:05:40.255Z"

}

EG : get all Products

Get <Http://autodesk-test-env.com:8084/products>

{

"page": 2,

"per\_page": 6,

"total": 12,

"total\_pages": 2,

"data": [

{

"id": 7,

"product": "michael.lawson@reqres.in",

"first\_name": "Michael",

"last\_name": "Lawson",

"avatar": "https://s3.amazonaws.com/uifaces/faces/twitter/follettkyle/128.jpg"

},

{

"id": 8,

"email": "lindsay.ferguson@reqres.in",

"first\_name": "Lindsay",

"last\_name": "Ferguson",

"avatar": "https://s3.amazonaws.com/uifaces/faces/twitter/araa3185/128.jpg"

},

{

"id": 9,

"email": "tobias.funke@reqres.in",

"first\_name": "Tobias",

"last\_name": "Funke",

"avatar": "https://s3.amazonaws.com/uifaces/faces/twitter/vivekprvr/128.jpg"

},

{

"id": 10,

"email": "byron.fields@reqres.in",

"first\_name": "Byron",

"last\_name": "Fields",

"avatar": "https://s3.amazonaws.com/uifaces/faces/twitter/russoedu/128.jpg"

},

{

"id": 11,

"email": "george.edwards@reqres.in",

"first\_name": "George",

"last\_name": "Edwards",

"avatar": "https://s3.amazonaws.com/uifaces/faces/twitter/mrmoiree/128.jpg"

},

{

"id": 12,

"email": "rachel.howell@reqres.in",

"first\_name": "Rachel",

"last\_name": "Howell",

"avatar": "https://s3.amazonaws.com/uifaces/faces/twitter/hebertialmeida/128.jpg"

}

],

"ad": {

"company": "StatusCode Weekly",

"url": "<http://statuscode.org/>",

"text": "A weekly newsletter focusing on software development, infrastructure, the server, performance, and the stack end of things."

}

}

1. How many API test case you written

20 API 🡺 100 tc

1. Explain httpRequest / httpResponse structure

HttpREquest :

httpMtd : specify the type of the request

Web URL : uniquely identify the WebResourse inside the Web Application

ContentType : specify the type of content available in body the Request/Response

formData : data collected in html Form / or request body

HttpREsponse

Status Code : specify the status of the Request

ContentType

Actaul Data : data available in response body

1. Explain the http method which you used In your previous project

Get = > read resource from the sever

Post => create resource inside the sever

Put=> create resource/ complete update resource inside the sever

Patch => partial update resource inside the sever

Delete => create resource inside the sever

1. Explain the status code which you encounter in your previous project

**100 Continue**

**--------------------------SucessFull----------------------**

[**200 (OK)**](https://restfulapi.net/http-status-200-ok/) **: able to read resource from the server**

[201 (Created)](https://restfulapi.net/http-status-201-created/) : able to create **resource inside the server**

[202 (Accepted)](https://restfulapi.net/http-status-202-accepted/) : able to accept the permission request inside the server

[204 (No Content)](https://restfulapi.net/http-status-204-no-content/) : got response from the server but no content

---------------------------------- **Redirected** ---------------------------------

300 Redirected : indicates that further action needs to be taken by the user agent in order to fulfill the request. http method is not supported

-------------------------------**Client Side Error-----------------------------------------------**

400 (Bad Request) : The request could not be understood by the server due to malformed syntax

401 (Unauthorized) : request is not authorized to access the resource inside the server

403 (Forbidden) : server understood the request but not authorized person to access

404 (Not Found) : not able to find the resource inside the server which you requested

405 Method Not Allowed

---------------------------------------**Server Side Error-------------------------------------------------**

500 Internal Server Error : problem from server side

502 Bad Gateway : proxy / firewall (network) issue in server side

503 Service Unavailable : The server is currently unable to handle the request

504 Gateway Timeout : server not response even waiting fro long time

1. **What is Crud operation**

**Create read update delete**

1. **Challenges you faced in API Testing**
2. End to End Scenario testing is challenging because we have do API Chaining

EG: Scenario 🡪Search Product + ADD to cart + Billing + Logistic

API : API -1 for Search Product

API-2 for ADD to cart

API-3 for Billing

API-4 for Logistic

1. API Document is not clear , API testing challenging
2. Negative testing is challenging
3. Validation of Complex response is challenging
4. **Prerequisite for APi testing**

* Knowledge of client server architecture of the application
* Knowledge of HTTP request and HTTP response;
* Knowledge of JSON or XML language
* API documentation / API Functional spec from Development team
* Get the list of END POINT
* Knowledge of CRUD
* Write test case for every API that include CRUD operation
* Required tool for API TESTING

Postman 🡪 GUI based API testing tool

RestAssured 🡪 Headless Java libraries for REST API testing

* Collect API authentication if required (like Basic Auth , Bearer Auth , Oauth-1.0, Oauth-2.0)
* Basic knowledge on database

1. **How to verify the complex response in API testing?**

**Will write jsonPath to navigate to specific data inside the response , then will go for “JSon Value checker ”Assert**

1. **How to post Complex request in api testing**

**We can post json File Itself in postman 🡺 body🡺binary🡺 select File**

1. **Explain the validation available in APi testing**
2. ResponseBody : Verify status Code
3. ResponseBody : time is less than ---
4. ResponseBody : json value Check
5. ResponseBody : contain string
6. ResponseBody : equal to String
7. **sendRequest**

1. What is Parameter & types of Paremter

To achieve data driven testing we go for Paremter

1. Path parameter : it’s the Part the URI , execute same request with diff End Point
2. Query parameter : it’s part of the Query String, execute same request with did filter /search criteria
3. form Parameter : send complete request body in the form of Parameter
4. What Authentication & Autherization

Authentication: used to check whether you are valid user or not?

Authorization : used to check your permission / accesses to the resource

1. **Types of API Athentication & which Athentication you have used in your previous project**
2. Basic Auth
3. Bearer Token
4. OAuth-1.0
5. OAuth-2.0
6. **What is Request chaining ?**

let jsonData;

pm.**test**("Your test name", **function** () {

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

    pm.expect(jsonData.data[0].first\_name).to.eql("Michael");

});

let var2 **=** jsonData.data[0].id

pm.sendRequest("https://reqres.in/api/users/"**+**var2, **function** (err, response) {

    console.**log**(response.json());

});

1. **What Is Collection in PostMan**

Collection(suite) of API requests

1. **How to execute API collection with Different Environment?**

In post we have concept of Environment window , where we can create Global data

Like BASEURI , PORTNUM , BEARER TOKEN

EG :

{{BaseURI}}/{{PORTNUM}}/endpoint/12

1. **How to execute API collection in command line**
2. Export Collection from POSTMAN
3. Download Collection in .json format
4. Go to Commandline
5. Install new MAN

cmd> npm install –g new man

1. Execute collction in CMD

Cmd> newman run path

1. How many types variables in API testing?
2. **Difference between XML & JSON**
3. **Difference between SOAP / rest Web service**