Top 25 API Testing Interview Questions – Rahul Shetty

What all challenges are included under API testing?

API Documentation
Access to DB
Authorization overhead

1. What is the difference between PUT and POST methods?

POST request - creating a new object on the server

PUT request, Update the object in server with new value

2. What are commonly used HTTP Methods?

GET: It enables you to retrieve data from a server
POST: It enables you to add data to an existing file or resource in a server
PUT: It lets you replace an existing file or resource in a server
DELETE: It lets you delete data from a server

3. List out few Authentication Techniques used in API's?

Session/Cookie Based Authentication
Basic Authentication
Digest Authentication
OAuth

4. Why API testing is determined as the most suitable form for Automation testing?

5. **What is Rest API?**

REST stands for Representational State Transfer. It is a set of functions helping developers in performing requests and receive responses. Interaction is made through HTTP Protocol in REST API.

6. What exactly needs to verify in API testing?

In API testing, we send a request to API with the known data and then analysis the response.

1. We will verify the accuracy of the data.
2. Will see the HTTP status code.
3. We will see the response time.
4. Error codes in case API returns any errors.
5. Authorization would be check.
6. Non-Functional testing such as performance testing, security testing.

7. What are Path Parameters and Query Parameters for below API request URL

http:/rahulshettyacademy.com/orders/112234?location=IND

8. What are the core components of an HTTP request?

1.   HTTP Request methods like:, PUT, POST, DELETE.
2.   Base Uniform Resource Identifier (URI)
3.   Resources and Parameters
4.   Request Header, which carries metadata (as key-value pairs) for the HTTP Request message.
5.   Request Body, which indicates the message content or resource representation.

9. What could be the HTTP Method for below API Scenario? Answer if it is GET or POST

Scenario: An API which has Endpoint, Parameters, Headers, cookies and Payload

Ans :

10.   What are the differences between API testing and UI testing?

UI (User Interface) testing means the testing of the graphical user interface. The focus of UI testing is on the look and feel of the application. In user interface testing the main focus is on how users can interact with app elements such as images, fonts, layout etc. are checked.

API testing allows the communication between two software systems. API testing works on backend also known as backend testing.

11.   What protocol is used by the RESTFUL Web Services?

RESTFUL Web Services uses the HTTP protocol. They use the HTTP protocol as a medium of communication between the client and the server.

12.   What are Soap WebServices?
SOAP stands for Simple Object Access Protocol. It is an XML based messaging protocol. It helps in exchanging information among computers.

13.   How do we Represent A Resource In REST?
Using HTTP Methods.

14.   Can you use GET request instead of PUT to create a resource?
No, GET request only allows read only rights. It enables you to retrieve data from a server but not create a resource. PUT or POST methods should be used to create a resource.

POST should be used when the client sends the page to the server and then the server lets the client know where it put it. PUT should be used when the client specifies the location of the page

15. Can you use POST request instead of PUT to create a resource?

Yes We can. Because POST is super set of all other HTTP methods except GET

16. What Do You Understand by Payload In Restful Web Service?

Ans. Payload/Body is the secured input data which is sent to API to process the request. Payload is generally represented in Json fomat in Rest API's

17. How do we differentiate Path and Query Parameters in API Request Endpoint?

18. What is Rest Assured?

It is Java library which can automate Rest API's

19. How would we define API details in Rest Assured Automation?

We shall define all the request details and Send it to sever in GIVEN, WHEN , THEN methods

20. What is Json Serialization & Deserialization in Rest Assured?

Serialization in Rest Assured context is a process of converting a Java object into Request body (Payload)

Rest Assured also Supports **deserialization** by converting Response body back to Java object

21. List out few common Json Parsing Techniques used in Rest Assured Automation?

Json Path
Deserialization of Json using POJO Classes

22. How would you send attachments to API using Rest Assured Test?

Using MultiPart method

23.   Different Status Codes and their descriptions

REST API - Response Codes and Statuses

Code	Status	Description
200	OK	The request was successfully completed.
201	Created	A new resource was successfully created.
400	Bad Request	The request was invalid.
401	Unauthorized	The request did not include an authentication token or the authentication token was expired.
403	Forbidden	The client did not have permission to access the requested resource.
404	Not Found	The requested resource was not found.
405	Method Not Allowed	The HTTP method in the request was not supported by the resource. For example, the DELETE method cannot be used with the Agent API.
409	Conflict	The request could not be completed due to a conflict. For example, POST ContentStore Folder API cannot complete if the given file or folder name already exists in the parent location.
500	Internal Server Error	The request was not completed due to an internal error on the server side.
503	Service Unavailable	The server was unavailable.

24. Get the Json Path of "site" from below JSON

{

 "dashboard": {

  "purchaseAmount": 910,

  "website": "rahulshettyacademy.com"

 },

```json
"courses": [

  {

    "title": "Selenium Python",

    "price": 50,

    "copies": 6,

    "details":

    {

      "site" : "http://rahulshettyacademy.com"

    }

  },

  {

    "title": "Cypress",

    "price": 40,

    "copies": 4

  },

  {

    "title": "RPA",

    "price": 45,

    "copies": 10

  }
```

]

}