### **Explain the purpose and benefits of using Postman for API testing?**

Postman is a powerful tool for API testing that offers numerous benefits. Its purpose is to simplify and streamline the process of testing APIs. Some benefits of using Postman for API testing include:

* Easy API Exploration: Postman provides a user-friendly interface for creating and sending requests to APIs, allowing you to explore and understand their functionalities.
* Efficient Testing: With Postman, you can quickly test various scenarios by sending different types of requests (GET, POST, PUT, DELETE) and examining the responses.
* Request and Response Validation: Postman allows you to validate API responses, ensuring they meet the expected criteria and identifying any errors or inconsistencies.
* Environment Management: Postman lets you create and manage environments, making it convenient to switch between different setups, such as development, staging, and production.
* Collaboration and Sharing: Postman facilitates teamwork by enabling the sharing of collections, requests, and test suites, fostering collaboration among developers, testers, and other stakeholders.

Postman is a widely used [API testing](https://www.simplilearn.com/best-automation-testing-tools-for-software-development-article) and development tool that simplifies working with APIs. As the demand for robust and efficient APIs grows, proficiency in using Postman has become a valuable skill for [software developers](https://www.simplilearn.com/what-is-a-software-developer-article), quality assurance engineers, and API enthusiasts.

To help you prepare for an interview focused on Postman, we have compiled a comprehensive list of common Postman interview questions. Whether you are a beginner or have some experience with Postman, these questions will cover various aspects of the tool, from basic concepts to advanced features.

Whether you are a beginner aiming to enter the world of API testing or an experienced professional looking to validate your skills, this collection of Postman interview questions will serve as a valuable resource to help you prepare effectively.

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### **How do you create and send a request in Postman?**

To create and send a request in Postman, follow these steps:

* Open Postman and create a new request by selecting the appropriate HTTP method (e.g., GET, POST) from the dropdown menu.
* Enter the request URL in the address bar.
* Add any required headers, query parameters, or request body data, depending on the API endpoint's requirements.
* Click the "Send" button to send the request to the API server.

Postman will display the response, including the status code, headers, and body, allowing you to analyze the results of your request.

### How do you handle authentication and authorization in Postman?

Postman provides multiple ways to handle authentication and authorization in API requests. Some commonly used methods include:

* Basic Authentication: You can include the username and password in the request headers using the "Authorization" header.
* Token-based Authentication: Postman allows you to include tokens (such as JWT or OAuth) in the request headers or as query parameters.
* API Key: If an API requires an API key, you can pass it as a request header or query parameter.
* OAuth 2.0: Postman has built-in OAuth 2.0 support, allowing you to configure and authenticate using various OAuth flows, such as Authorization Code or Client Credentials.
* Custom Authentication: Postman's scripting capabilities enable you to implement custom authentication mechanisms by modifying request headers or using specialized libraries

### **What is Postman?**

Definition1:Postman is a collaboration platform for API development. It is a recognized API client that enables you to organize the creation, division, testing, and documentation of APIs. We can send HTTP/s requests to a repair and receive their responses using the Postman tool. It will enable us to approve the service's uptime and functionality.

Definition2:Postman is a free, HTTP Client based software application primarily used to perform API testing. It supports testing of HTTP requests by utilizing GUI (Graphical User Interface) which can be executed and the responses can be validated. It also helps in collaborating among the team members for the development of API by providing a platform to design, develop, test, and document APIs.

### **What is a collection in Postman?**

In Postman, a collection allows you to group related requests. You can also use it to organize the requests into folders systematically.

### **Why do we use Postman?**

Following are some of the most important reasons for using Postman:

* It is software that aids with API testing and is available for free use
* It aids in managing the complete API lifecycle
* It provides Runtime Service to assist with managing API collections, workspaces, environments, and many examples
* Additionally, Postman may get integrated with [CI/CD](https://www.simplilearn.com/best-ci-cd-tools-article) programs like Circle CI, [Jenkins](https://www.simplilearn.com/tutorials/jenkins-tutorial/what-is-jenkins), etc
* It offers a sizable community forum where you can quickly find solutions to any technical problems you run across while using the tool

### **Name some tools used for API Testing?**

The following list includes some of the tools used for API testing:

* Postman
* Tricentis Tosca
* Katalon Studio
* Apigee
* Jmeter
* SoapUI

### **What are the core components of an HTTP request?**

An HTTP request is made up of five major components:

* HTTP methods: A collection of request techniques used to carry out particular actions on resources (GET, PUT, POST, DELETE)
* URI (Uniform Resource Identifier): locates a resource.
* Version of HTTP (example- HTTP v1.1)
* Content-Type: application/JSON, Content-Length: 511) Request Headers
* Payload: The message content is contained in the request body.

### **How can you iterate a request 100 times in Postman?**

With the help of Collection Runner, Postman allows us to iterate a request 100 times.

### 

### **What are the various authorization methods provided by Postman?**

Postman provides the following API request authorization options:

* API Key
* Basic auth
* Digest auth
* Hawk Authentication
* Oauth 1.0
* Oauth 2.0
* Bearer Token
* NTLM Authentication
* AWS Signature

### **What are the different types of API requests supported in Postman?**

The following is a list of the various API requests that Postman supports:

* GET
* POST
* PUT
* PATCH
* COPY
* DELETE
* HEAD
* OPTIONS
* LINK
* UNLINK
* PURGE
* LOCK
* UNLOCK
* PROPFIND
* VIEW

### **How are Query Params different from Path Variables?**

Query parameters are used to sort or filter the resources, and Path Variables gets used to identify specific resources.

### **What is Basic Auth in Postman?**

Basic Auth is a method of authorization offered by Postman for HTTP user agents, such as web browsers, to enter login and password. It becomes connected with the request after the username and password are entered.

### **What is digest auth in Postman?**

One of Postman's authorization techniques is digest auth or digest authorization. Through this method, clients can send requests to the API first and then receive responses from the server, such as 401 illegal responses and numbers that can only be used once as absolute values.

### **What are the limitations of Postman?**

The following is a list of Postman's main drawbacks:

* Postman cannot process 1000+ API requests.
* It might be challenging to manage collections and requests for large projects.
* For managing the workspace as code, Postman is not appropriate. It is because dynamic API requests would result in a lot of code duplication.

### **What is the significance of 301 status code?**

When a page has been permanently redirected from one website page to another, Postman's 301 status code gets used to indicate this. The search engine is informed that the old page is out-of-date and has to index the URL of the new page.

### **Why is Base64 encoding primarily used in Postman?**

As a result of the data being transmitted in textual form and being sent in a more accessible format, like HTML form data, the Base64 authorization credentials are typically employed. Base64 is so popular because we can rely on the same 64 characters regardless of the encoding language we use.

### **What is the purpose of the 304 status code?**

The meaning of the status code 304 is "Not Modified." It is utilized in conditional GET requests to reduce network bandwidth usage. The response's body must be empty. Dates, locations, and other information should be in the headers.

### **What do you know about postman monitor?**

Monitoring is a method of staying in sync with the health and performance of the APIs. Postman provides inbuilt monitoring services that help us be in sync with the API development and performance. The monitors provided by Postman are mainly based on the working of collection runners. They run every request in the collection and analyze the values mentioned in the test scripts. Monitors use the test scripts for validating and monitoring the responses. The reports generated are shared with the developers over emails or alerts in slack, hipchat, etc based on our configuration settings.

### **How do you access history of requests in Postman?**

The request history can be accessed in the History tab provided on the Postman application. If we sign into the Postman account, then the history will be synced across the devices where you are logged in.

* When you click on any of the requests present in the History tab, the view opens the request that we have saved while we were working on it earlier.
* History also consists of the collection runs that were executed as summarized versions. They are not logged in History as single requests.
* Click on “View More option (…)” on the request, we will see options to save, document, monitor, delete or mock the request.
* Multiple requests can be selected by using Command or Control button and then clicking on the request.

### **Is it preferable to save our work on Postman Cloud?**

When working on enterprise-level applications for organizations, it is not preferred to store our work on the Postman cloud because of the required privacy and security. In the Postman cloud, there are chances of security breaches by a skilled hacker.

### **4. What are the various variable scopes provided by Postman?**

Postman has the following variable scopes:

* Global Variables: Global variables allow data access between different collections, requests, and scripts. They are available throughout the workspace.
* Environment Variables: These allow us to tailor the requests about different development environments - such as local testing, stage testing, or prod testing.
* Local Variables: These are temporary variables that are accessible only within the scope of requests scripts. They are either scoped to a single request or single collection, depending on the requirements. These variables are not available after the completion of the script execution.
* Collection Variables: These variables are scoped to be available for all the requests present in a collection. They are independent of the environment.
* Data Variables: These variables come from external JSON or CSV files for defining the datasets required to run the collection in Collection Runner or Newman

### **Is it possible to reuse the authentication token for multiple requests?**

Yes, it is possible. It can be achieved by creating a collection and adding all the requests having the same authentication token to that collection and then assigning the auth token to the collection. This can be applied to the individual requests by selecting the “Inherit auth from parent” option in the Authorization tab.

### **What are workspaces in Postman? What are their uses?**

Workspaces are the areas/space given by Postman for team collaboration to work on a specific or set of collections. It provides a way to logically separate requests or collections that are personal to the developer or the team so that the maintenance of requests is made easy.

There are two types of workspaces in Postman:

* Personal Workspace:
  + These workspaces are useful when we are working simultaneously on multiple projects and we require logical separation between the requests to handle the requests better.
* Team Workspace:
  + These are created for team collaboration so that more than one person can be part of testing requests.
  + We can invite new users for collaborating on our collections by sharing the email id of the users. Once the invite is accepted, the new users can start contributing to the workspace by adding or modifying the requests.

### 

### **How can you view log requests and responses in Postman?**

You can use the Postman Console window to view request logs and response logs.