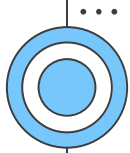


Professional Software Testing & Quality Assurance

Instructor
Parvez Hossain



Postman

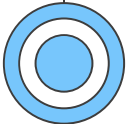


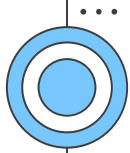
Postman is one of the most popular software testing tools which is used for API testing. It provides a user-friendly interface that allows to create, test, and document APIs in a more efficient and organized manner.

Key features of Postman include:

- **API Request Sending:** Postman allows you to send HTTP requests (GET, POST, PUT, DELETE, etc.) to APIs and receive responses. This is crucial for testing and debugging APIs.
- **Request Building:** The platform provides an intuitive interface to construct complex API requests. You can set headers, parameters, authentication methods, and request bodies easily.
- **Response Visualization:** Postman formats and displays API responses in a readable manner. This helps developers and testers to understand the data returned by the APIs and identify any issues.
- **Collections:** Collections in Postman are groups of API requests that are organized for a specific purpose. This helps in managing and executing related API requests together.
- **Environments:** Environments allow you to set up variables that can be used in requests. This is useful for switching between different development or testing environments without changing each request individually.

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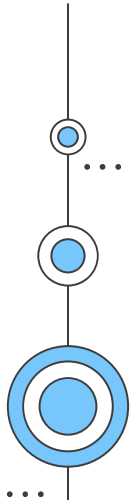


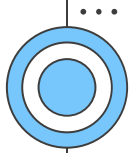
HTTP Methods

In the context of API testing with tools Postman, GET, POST, PUT, PATCH, and DELETE are HTTP methods that define the type of operation you want to perform on a web server. These methods determine the action that the server should take when your API request is received.

Key features of Postman include:

- **GET:** The GET method is used to retrieve data from the server. It doesn't modify or change the server's data and can be repeated multiple times with the same result.
- **POST:** The POST method is used to send data to the server to create a new resource. It typically includes data in the request body, and the server processes the data and creates a new resource based on that data.
- **PUT:** The PUT method is used to update or replace an existing resource on the server. It requires the client to send the **complete updated representation** of the resource in the request body.
- **PATCH:** The PATCH method is used to apply **partial modifications** to a resource. Instead of sending the entire updated resource like with PUT, you send only the specific changes you want to make.
- **DELETE:** The DELETE method is used to request the removal of a resource from the server. After a successful DELETE request, the resource should no longer be available.





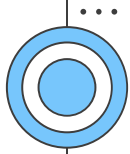
HTTP Response Codes

HTTP response codes, also known as HTTP status codes, are three-digit numbers returned by a web server in response to a client's request made to the server. These codes provide information about the status of the request. They are grouped into different classes, each indicating a different type of response.

- **Successful (2xx):** These codes indicate that the request was successfully received, understood, and accepted.
 - a. 200 OK
 - b. 201 Created
 - c. 204 No Content
- **Redirection (3xx):** These codes indicate that the client must take additional action to complete the request.
 - a. 301 Moved Permanently
 - b. 302 Found
 - c. 304 Not Modified

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HTTP Response Codes

- **Client Error (4xx):** These codes indicate that there was an error on the client's side of the request..
 - a. 400 Bad Request
 - b. 401 Unauthorized
 - c. 403 Forbidden
 - d. 404 Not Found
- **Server Error (5xx):** These codes indicate that the server failed to fulfil a valid request..
 - a. 500 Internal Server Error
 - b. 502 Bad Gateway
 - c. 503 Service Unavailable
 - d. 504 Gateway Timeout

These are just a few examples of the HTTP response codes. Each code carries specific information about the result of the request, making it easier for clients and developers to understand the outcome and take appropriate actions.

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Thanks!

Do you have any questions?

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