HTTP - Methods

HTTP defines a set of **request methods** to indicate the desired action to be performed for a given resource. Although they can also be nouns, these request methods are sometimes referred to as HTTP verbs. Each of them implements a different semantic, but some common features are shared by a group of them: e.g. a request method can be [safe](https://developer.mozilla.org/en-US/docs/Glossary/Safe/HTTP), [idempotent](https://developer.mozilla.org/en-US/docs/Glossary/Idempotent), or [cacheable](https://developer.mozilla.org/en-US/docs/Glossary/Cacheable).

The set of common methods for HTTP/1.1 is defined below and this set can be expanded based on requirements. These method names are case sensitive and they must be used in uppercase.

|  |  |
| --- | --- |
| **S.N.** | **Method and Description** |
| 1 | **GET**  The GET method is used to retrieve information from the given server using a given URI. Requests using GET should only retrieve data and should have no other effect on the data. |
| 2 | **HEAD**  Same as GET, but transfers the status line and header section only. |
| 3 | **POST**  A POST request is used to send data to the server, for example, customer information, file upload, etc. using HTML forms. |
| 4 | **PUT**  Replaces all current representations of the target resource with the uploaded content. |
| 5 | **DELETE**  Removes all current representations of the target resource given by a URI. |
| 6 | **CONNECT**  Establishes a tunnel to the server identified by a given URI. |
| ­­­7 | **OPTIONS**  Describes the communication options for the target resource. |
| 8 | **TRACE**  Performs a message loop-back test along the path to the target resource. |

## GET Method:

A GET request retrieves data from a web server by specifying parameters in the URL portion of

the request. This is the main method used for document retrieval.

## HEAD Method:

The HEAD method is functionally similar to GET, except that the server replies with a

response line and headers, but no entity-body.

## POST Method:

The POST method is used when you want to send some data to the server, for example, file

update, form data, etc.

## PUT Method:

The PUT method is used to request the server to store the included entity-body at a location

specified by the given URL.

## DELETE Method:

The DELETE method is used to request the server to delete a file at a location specified by

the given URL.

## CONNECT Method:

The CONNECT method is used by the client to establish a network connection to a web

server over HTTP.

## OPTIONS Method:

The OPTIONS method is used by the client to find out the HTTP methods and other options

supported by a web server. The client can specify a URL for the OPTIONS method, or an

asterisk (\*) to refer to the entire server.

## TRACE Method:

The TRACE method is used to echo the contents of an HTTP Request back to the requester

which can be used for debugging purpose at the time of development.

# HTTP - Status Codes

The Status-Code element in a server response, is a 3-digit integer where the first digit of the

Status-Code defines the class of response and the last two digits do not have any categorization

role. There are 5 values for the first digit:

|  |  |
| --- | --- |
| **S.N.** | **Code and Description** |
| 1 | **1xx: Informational**  It means the request has been received and the process is continuing. |
| 2 | **2xx: Success**  It means the action was successfully received, understood, and accepted. |
| 3 | **3xx: Redirection**  It means further action must be taken in order to complete the request. |
| 4 | **4xx: Client Error**  It means the request contains incorrect syntax or cannot be fulfilled. |
| 5 | **5xx: Server Error**  It means the server failed to fulfill an apparently valid request. |