

HTTP Requests and HTTP Response

In this lesson, we will walk you through the concepts of HTTP request and response.

We'll cover the following

- What is an HTTP request?
- What is an HTTP response?
- HTTP request and response example
- Try it yourself

What is an **HTTP** request?

HTTP *requests* are the messages sent by the client to initiate an action on a resource identified by a given URL over the network. There are various **HTTP** *request* methods for specific purposes.

The components of an **HTTP** *request* are as below:

- **The method to be applied to the resource** – an **HTTP** method (like **GET**, **PUT**, **POST**, **HEAD** or **OPTIONS**), that describes the action to be performed. We have already discussed the various **HTTP** methods in the previous [lesson](#).
- **The resource identifier** – resource identified by a given request URL.
- **Headers (optional)** – headers are the information sent to the server in the form of key/value pairs, which contains the details of what the browser wants and will accept from the server.
- **Params (optional)** – used for sending additional data to the server. For example, a query parameter.
- **Message body (optional)** – These are additional information required by the server to process current requests properly. For example, a file type of JSON or XML sent in the case of a **POST** or **PUT** method request.

What is an **HTTP** response?

After receiving and processing an **HTTP** *request* message, a server responds with an **HTTP** *response* message.

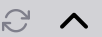
HTTP request and response example

The example below will help you to understand more about **HTTP** *request* and *response*.

Request – The request below contains the **HTTP** *Method*, the target **URL**, and the query **Param** in the URL (post id = 1).

```
curl -iX GET https://jsonplaceholder.typicode.com/posts/1
```

Terminal



Response – The *response* returned from the server for the above *Request* contains:

- A status-line (contains **HTTP** version and **HTTP** Status code) – *HTTP/2 200*
- *Headers* – these are general, response, or entity fields. We will discuss more about it in the [HTTP headers](#) lesson
- *Response message body* – a message in the form of a **JSON**, which returns the data associated with the post (id =1)

```
{
  "userId": 1,
  "id": 1,
  "title": "sunt aut facere repellat provident occaecati excepturi optio reprehenderit",
  "body": "quia et suscipit\nsuscipit recusandae consequuntur expedita et cum\nreprehenderit molestiae ut ut quas totam\nnostrum rerum est autem sunt rem eveniet architecto"
}
```

Try it yourself

You can make an HTTP request for the URLs below or any other URL/target of your choice and analyze the HTTP response in the terminal below.

```
curl -I https://www.facebook.com/
```

```
curl -I GET https://reqres.in/api/users/2
```

```
curl -X GET https://reqres.in/api/users/2
```

```
curl -iX GET https://reqres.in/api/unknown/2
```

```
curl -iX POST -d {"name":"john"} https://reqres.in/api/users
```

● Terminal



Let's dive right in and learn about various HTTP status codes in the next lesson.