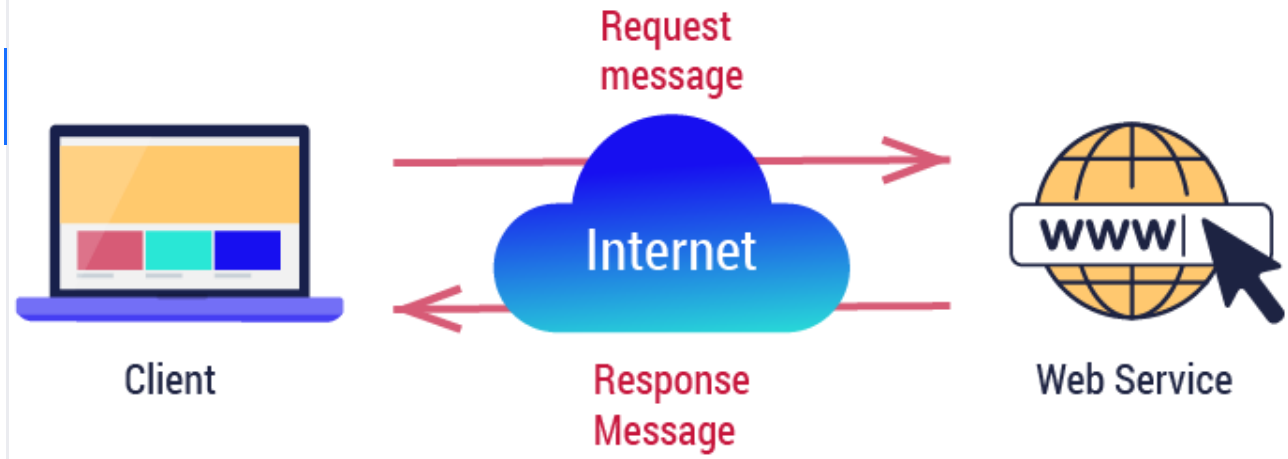
Response: Introduction



HTTP Response is the packet of information that is sent by the server to the client in response to an earlier Request (GET, POST, PUT ....) that was made by a client. An HTTP Response contains the information requested by the client.

Status

HTTP response status codes indicate whether a specific HTTP request has been successfully completed or not. Responses are grouped in five classes:

1. Informational responses (100–199),
2. Successful responses (200–299),
3. Redirects (300–399),
4. Client errors (400–499),
5. Server errors (500–599).

What is the purpose of HTTP status codes?

HTTP status codes are standard response codes given by web site servers on the internet. The codes help identify the cause of the problem when a web page or other resource does not load properly.

Status: example

HTTP response status description:

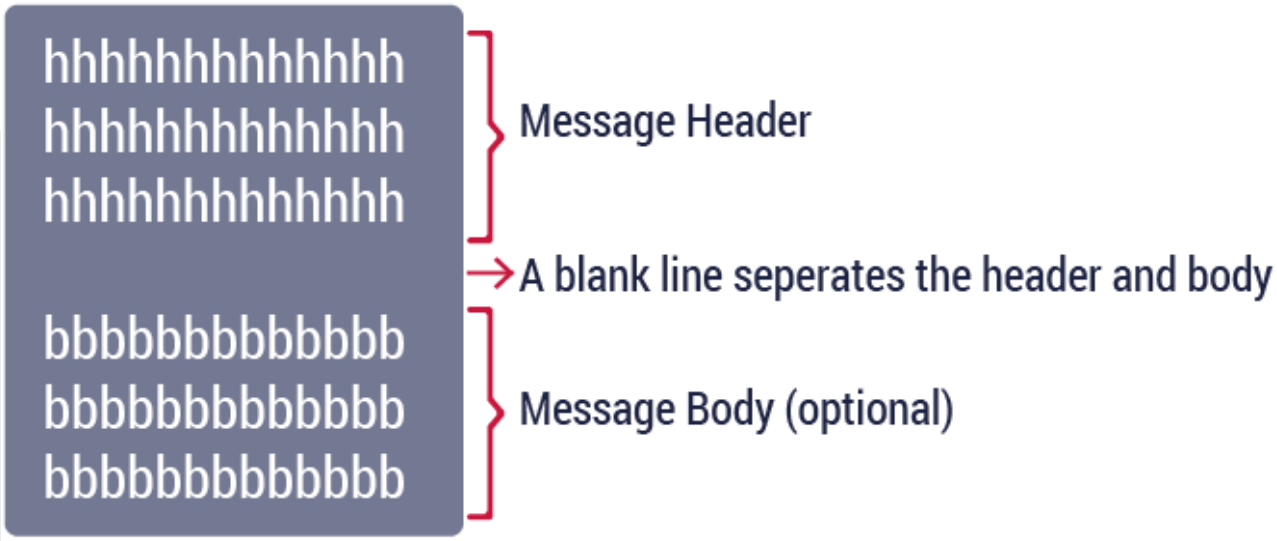
The Status-Code element in a server response is a 3-digit integer where the first digit of the Status-Code defines the class of response and the last two digits do not have any categorization role. There are 5 values for the first digit. Here is a table describing the existing status value.

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.

In the table below, we find the most used response status.

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.

Body



An HTTP message consists of a message header and an optional message body, separated by a blank line, as illustrated above.

Body

Response Body contains the resource data that was requested by the client.

In the example below, City Hyderabad was requested for the weather data. If we take a look at the response body, it contains the city's weather information. It also has information about Temperature, Humidity, Weather description and more of the city's weather properties.

```
Response Body:

{
   "City": "Hyderabad",
   "Temperature": "25.7 Degree celsius",
   "Humidity": "51 Percent",
   "WeatherDescription": "haze",
   "WindSpeed": "2.6 Km per hour",
   "WindDirectionDegree": "120 Degree"
}
```

To summarize, an API needs to specify the responses for all API operations. Each operation must have at least one response defined and it's usually a successful response. A response is defined by its HTTP status code and the data returned in the response's body and/or headers.

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