HTTP Status Codes

5 min to complete · By Ryan Desmond, Jared Larsen

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This lesson covers HTTP status codes, the last bit of the HTTP protocol you need to get comfortable with.

What are HTTP Status Codes?

HTTP status codes are sent to you by the server to convey information about the state of the request/response.

HTTP status codes make client/server communication more efficient and straightforward. They were established as part of the HTTP RFC 7231 standard.

The standard assigns meaning to 3-digit codes ranging from 100 to 599. These codes mean a server does not have to say, "Your request could not be completed"; it can just tell you status code 412. The shorter the message, the simpler the response, so status codes help to reduce transfer time with the added benefit of reducing ambiguity.

Status Code Categories

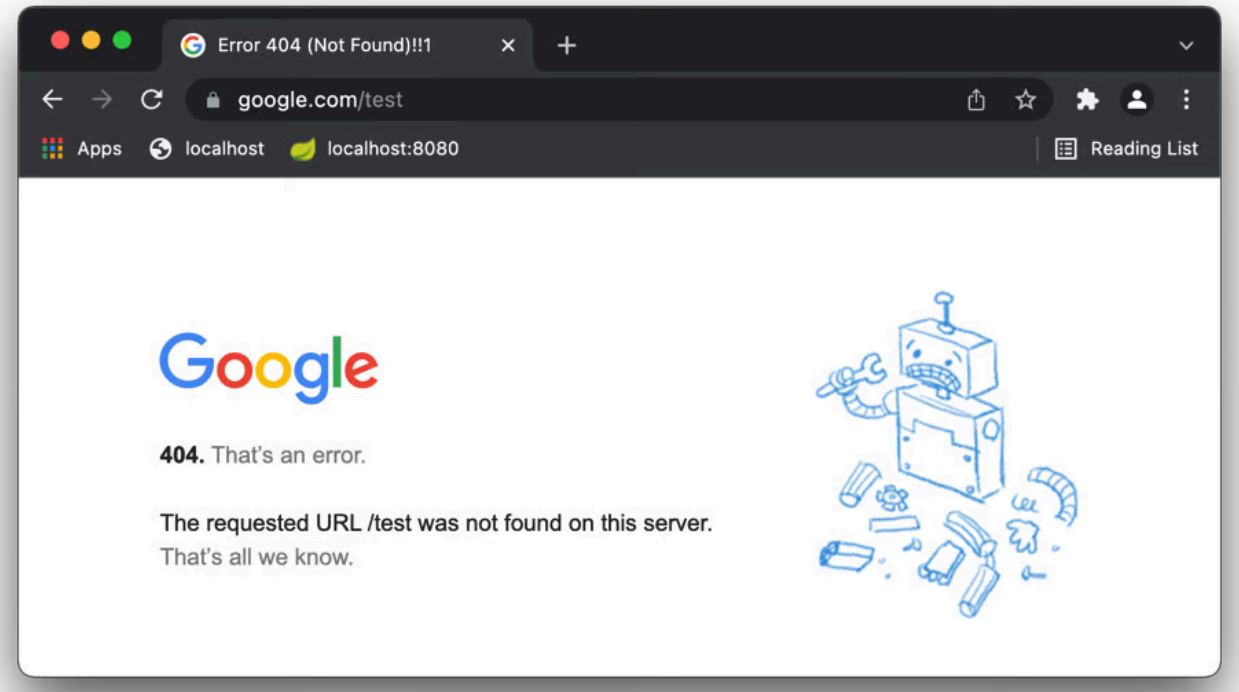
HTTP status codes are divided into five overarching categories:

1. **1xx: Informational** - Like the name suggests, informational codes provide updates about an ongoing request.
2. **2xx: Success** - When a code falls between 200 - 299 it indicates that the request was successful.
3. **3xx: Redirects** - Redirect codes inform you that some extra action is required before the request can be completed.
4. **4xx: Client Errors** - Something's wrong on your end. Double-check the requirements for the request you want to make.
5. **5xx: Server Errors** - The server failed to complete the request because of some server error.

Info: 1xx means range (100 to 199) and 2xx means (200 to 299)

Common HTTP Status Codes + HTTP Error Codes

Now that you know what the first digit of a code means, let's see what some of the most common status codes mean. Most likely, you have encountered the trusty old 404:



- The HTTP `404 Not Found` status code means the server was unable to find the specific resource you requested. URLs that trigger a 404 response are often called broken or dead links. Here are some more common codes:

- `200 OK` : Servers respond with 200 for various successful HTTP requests. AKA nothing went wrong with the request and the resource was returned as requested.

- `201 Created` : Servers should respond with 201 when they have successfully processed a POST request and created the entity as requested.

- `401 Unauthorized` : Servers respond with 401 when a client has not authenticated itself properly and access to the resource was denied.

- `403 Forbidden` : Servers respond with 403 when a client has been fully authenticated but does not have permission to access the requested resource.

- `500 Internal Server Error` : Servers respond with 500 when some server-side problem stops the request from being fulfilled.

The above codes are just a few of the codes that the **RFC 7231** standard defines. There are also select codes within the range of 100 to 599 that it leaves unspecified, or for future use.

Summary: HTTP Status Codes

- HTTP status codes are used to convey information about the state of the request.
- Status codes exist to make client/server communication more efficient and straightforward.
- HTTP status codes help to reduce ambiguity and unnecessary data usage by reducing full sentences to 3 digits.
- Some common HTTP status codes include:
    - `200 OK`
    - `201 Created`
    - `401 Unauthorized`
    - `404 Not Found`
    - `403 Forbidden`

- `500 Internal Server Error`

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