

# POST & error-handling

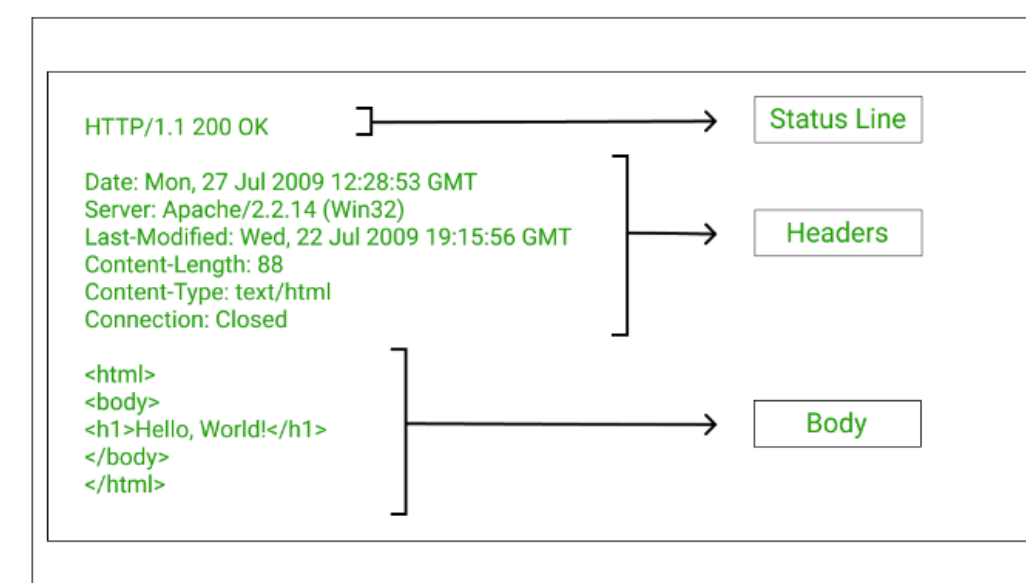
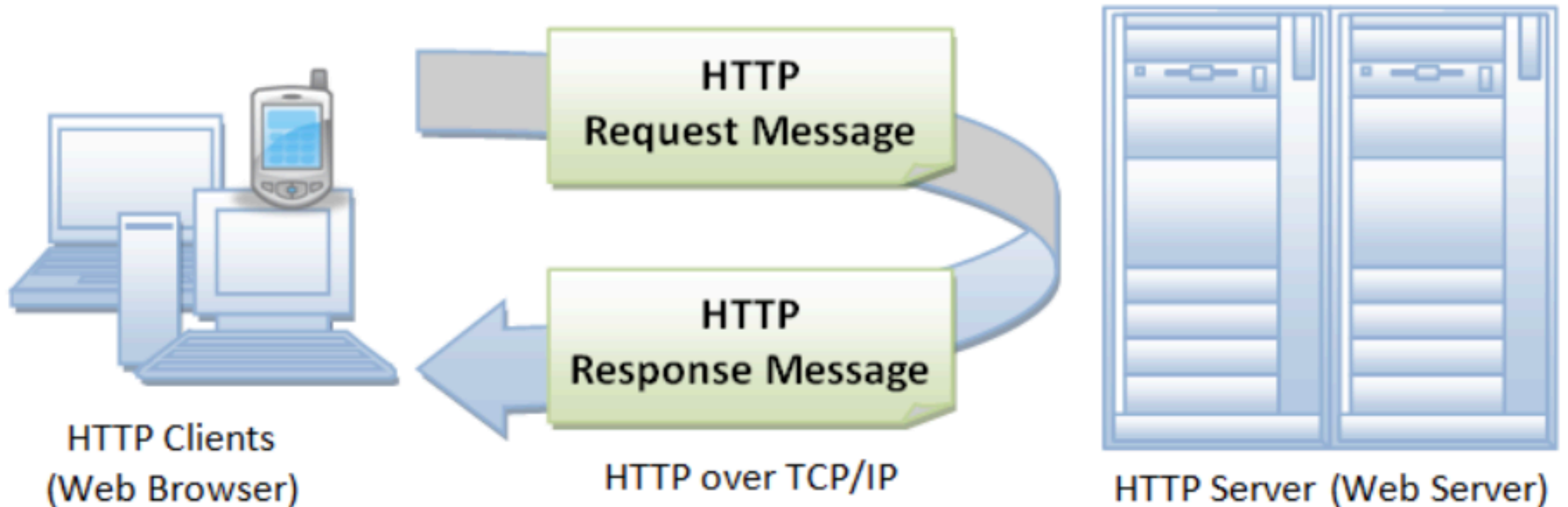
API development

# POST & error-handling

## Agenda

- GET query parameters
  - Error handling a GET endpoint
    - 404 Ressource not available
    - 500 Internal server error
- Inserting data with express.js & mysql2
- POST request
  - Posting data to the server

```
GET /docs/index.html HTTP/1.1
Host: www.nowhere123.com
Accept: image/gif, image/jpeg, */*
Accept-Language: en-us
Accept-Encoding: gzip, deflate
User-Agent: Mozilla/4.0 (compatible; MSIE 6.0; Windows NT 5.1)
(blank line)
```



Anatomy of HTTP Response

```
<!DOCTYPE html>
<html>
<body>

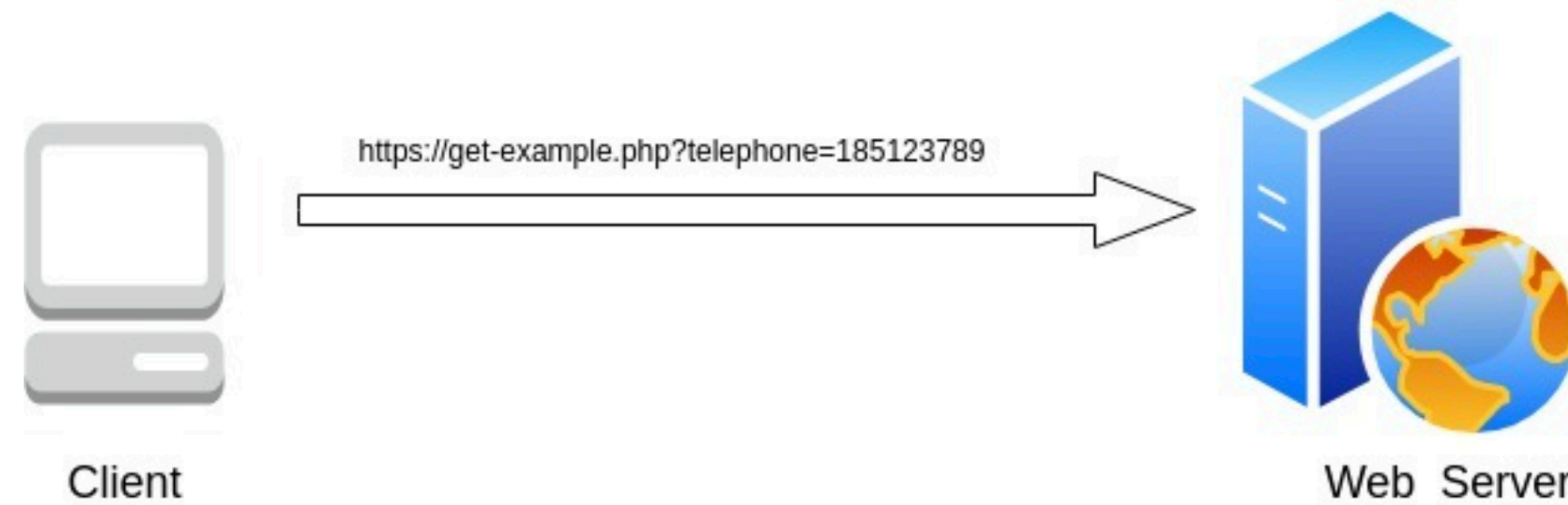
<h1>My First Heading</h1>

<p>My first paragraph.</p>

</body>
</html>
```

## 2. The GET Method

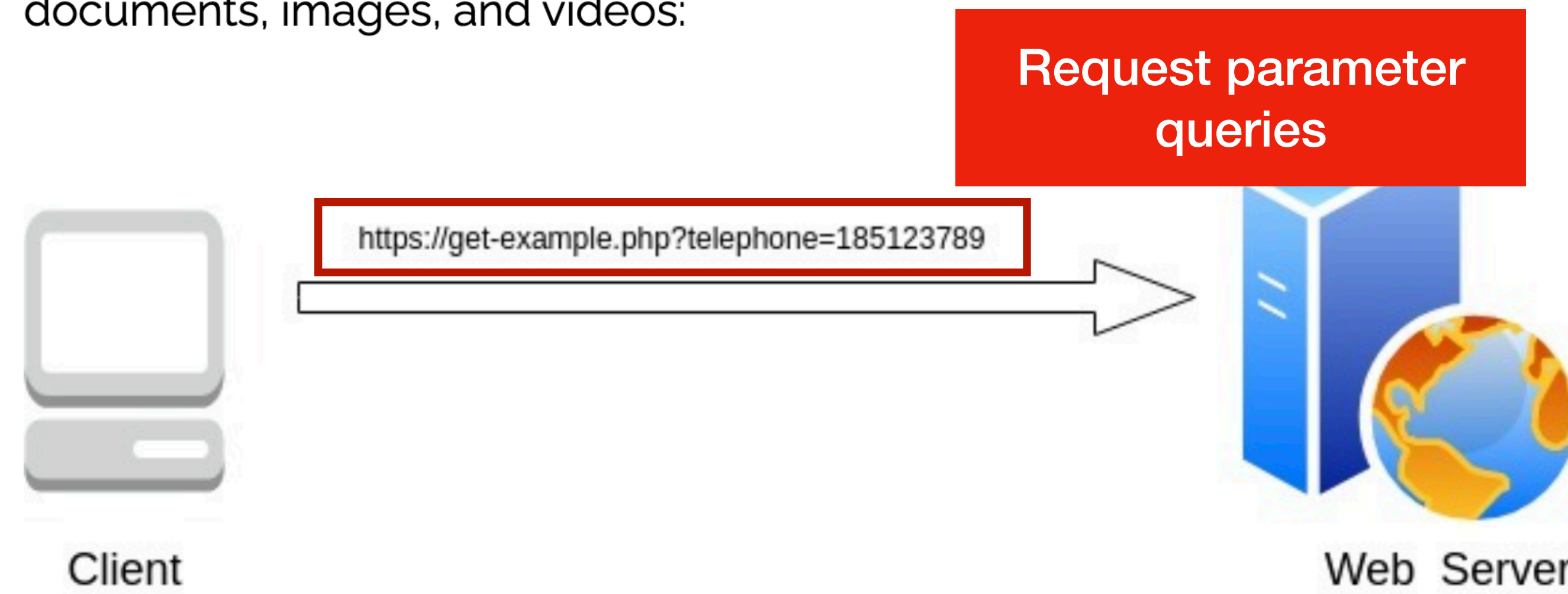
GET is used to request data from a specified resource. It can retrieve any visible data to a client, such as HTML documents, images, and videos:



To send a GET request, a client needs to specify the [URL of the resource](#) it wants to retrieve. The request is then sent to the server, which processes the request and sends the requested data back to the client.

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localhost:3000/all/fire/100

localhost:3000?type=fire&speed=0



Path Variable

localhost:3000/all/fire/1

Request parameter  
queries

localhost:3000?type=fire&speed=1

localhost:3000?type=fire&speed=1  
&trainer=ash&color=ember



# Interacting with query parameters

Example req.query

Notice: All data is sent by the public URL

localhost:3000/all/fire/1

localhost:3000?type=fire&speed=1

Error handling 404 500

# Providing 404 errors

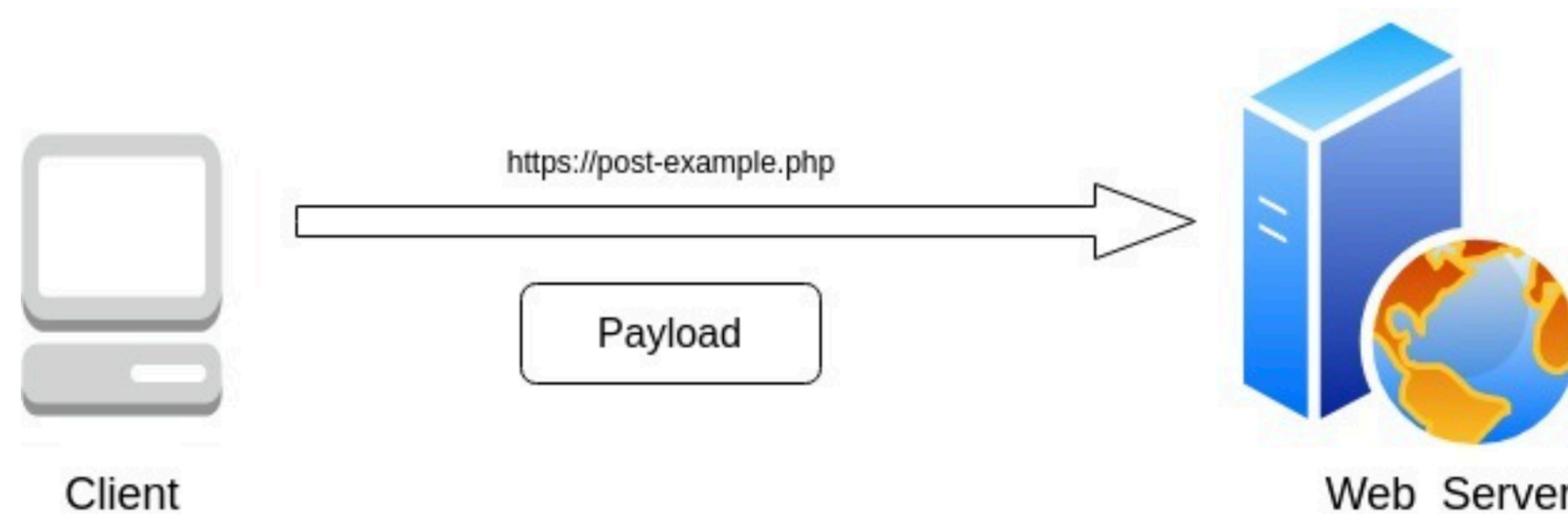
To all non-existing resources / end-points

```
app.get( "*", (req, res) => {  
    res.sendStatus(404);  
});
```

500 internal server error

### 3. The POST Method

The POST sends data to a server to create or update a resource. For example, it is often used to submit an HTML form to a server:



To send a POST request, a client needs to specify the URL of the resource to which it wants to send data and the data itself. The request is then sent to the server, which processes the request and sends a response back to the client.

The POST method is often used to submit forms or upload files to a server.

# Sending sensitive data / shared secrets

## By the GET method

- GET information will end up in the log-files various servers
  - Web server, proxy server etc.
- Included in the reference header
- Saved in the history of the browser (vulnerable to attacks against the client)
- Is displayed on-screen




localhost:3000?  
username=nifr&password=hejsa

localhost:3000/create?  
pokemon=mewtwo&type=psychic



/tutorials/prevent-form-resubmission-alert-post-method-php/form-submit.php

Submit An...  google.com

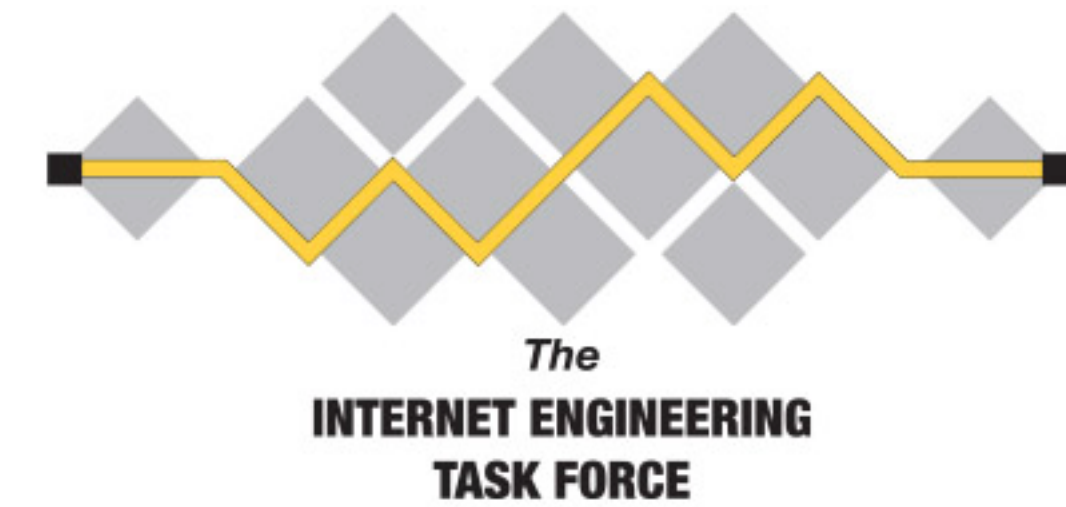
 Creately

### Confirm Form Resubmission

The page that you're looking for used information that you entered. Returning to that page might cause any action that you took to be repeated. Do you want to continue?

Cancel

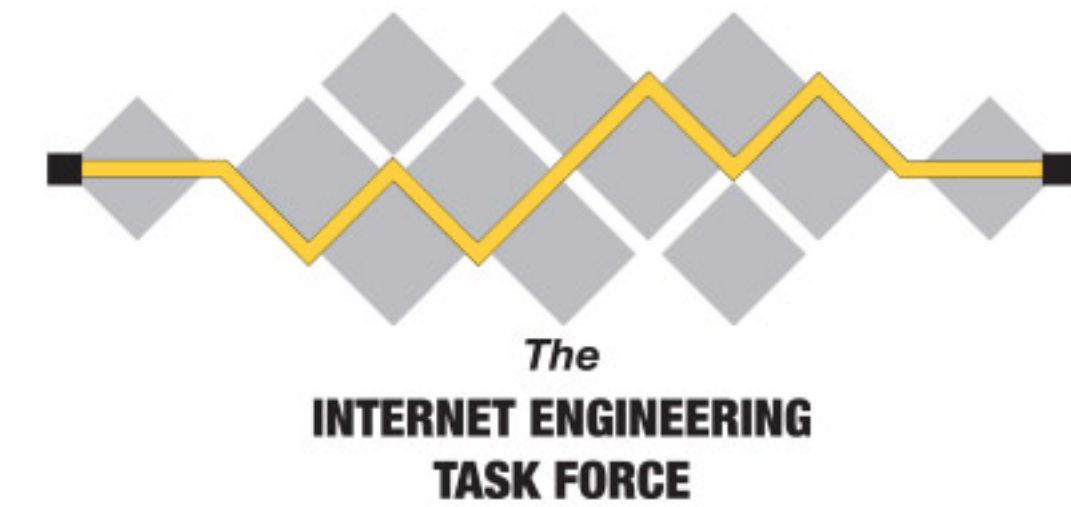
Continue



### 9.2.1. Safe Methods

Request methods are considered "safe" if their defined semantics are essentially read-only; i.e., the client does not request, and does not expect, any state change on the origin server as a result of applying a safe method to a target resource. Likewise, reasonable use of a safe method is not expected to cause any harm, loss of property, or unusual burden on the origin server.

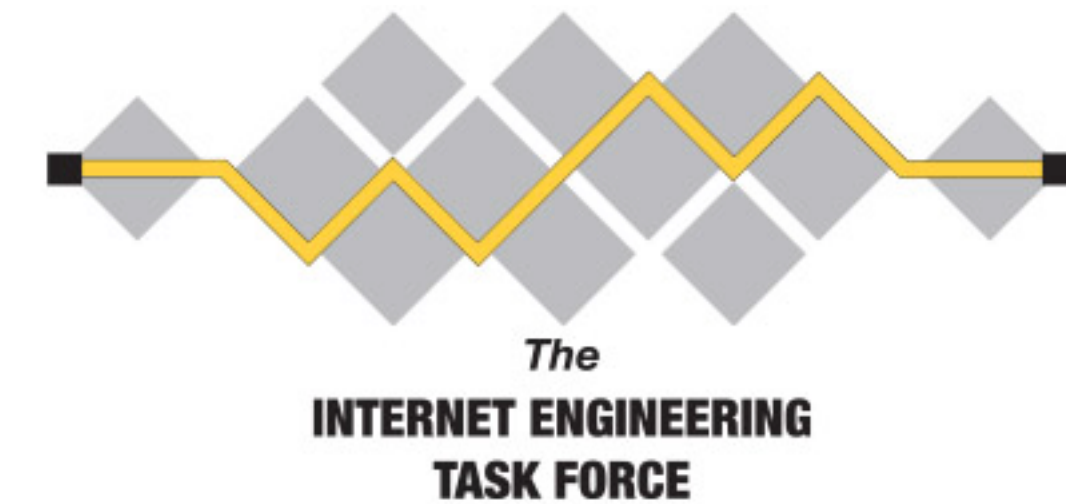
<https://datatracker.ietf.org/doc/html/rfc9110#name-get>



GET is the primary mechanism of information retrieval and the focus of almost all performance optimizations. Applications that produce a URI for each important resource can benefit from those optimizations while enabling their reuse by other applications, creating a network effect that promotes further expansion of the Web.

<https://datatracker.ietf.org/doc/html/rfc9110#name-get>





The POST method requests that the [target resource](#) process the representation enclosed in the request according to the resource's own specific semantics. For example, POST is used for the following functions (among others):

- \* Providing a block of data, such as the fields entered into an HTML form, to a data-handling process;
- \* Posting a message to a bulletin board, newsgroup, mailing list, blog, or similar group of articles;
- \* Creating a new resource that has yet to be identified by the origin server; and
- \* Appending data to a resource's existing representation(s).

# Login Form



Email or Phone



Password

Forgot Password?

LOGIN

Or login with



Facebook



Instagram

Don't have account? [Signup Now](#)



API/Server side: Receiving data and  
inserting to database

Front-end/Client: Transmitting  
POST data to api

Req/Res & Error handling