

# Webprogramozás 1.

# Web development 1

About the World Wide Web



# World Wide Web

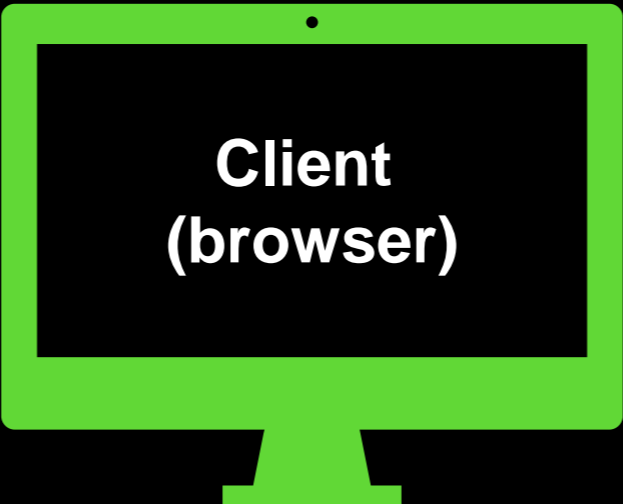


# How it works?

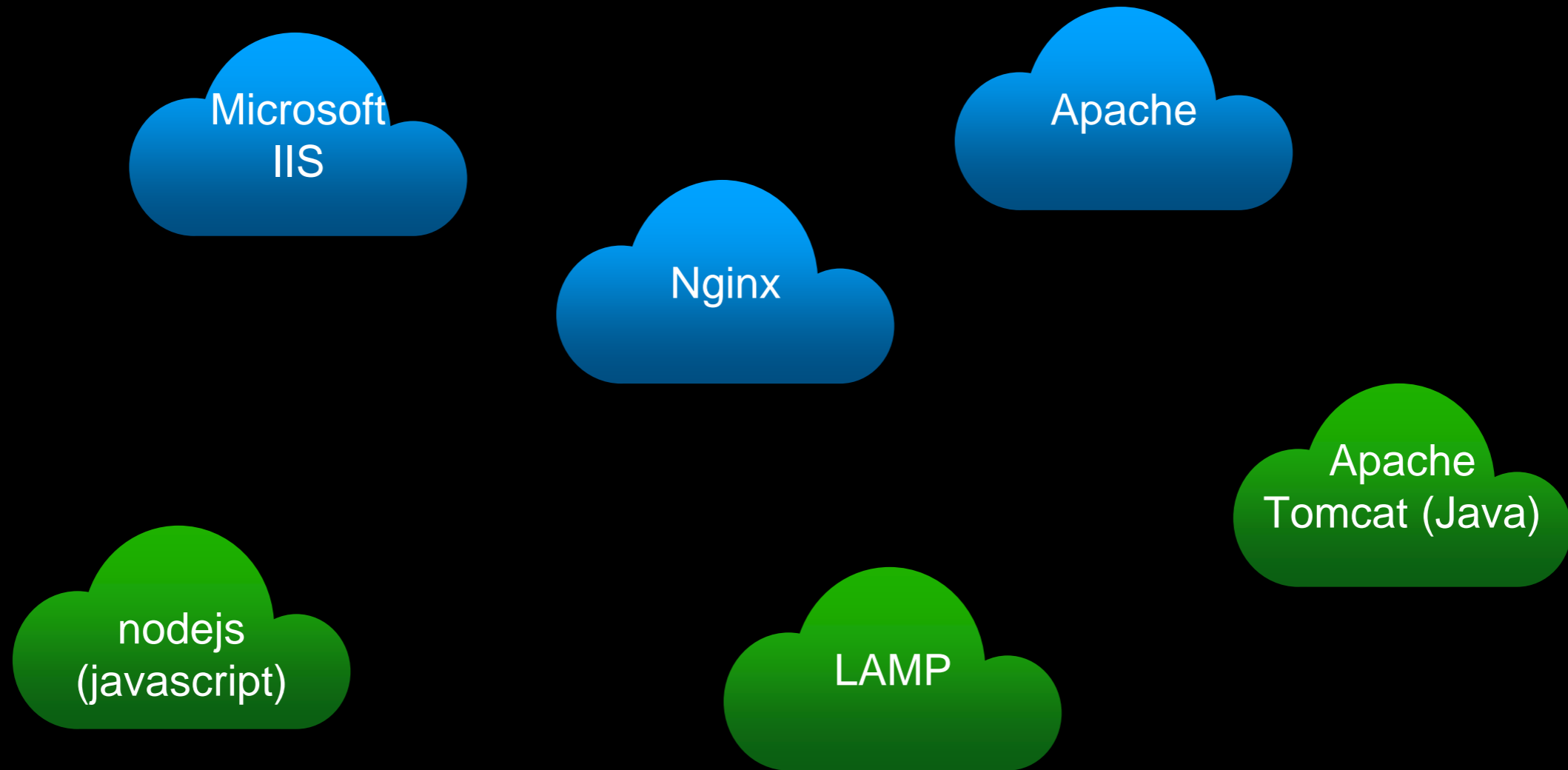


Language of communication: **http**  
**Hypertext Transfer Protocol**

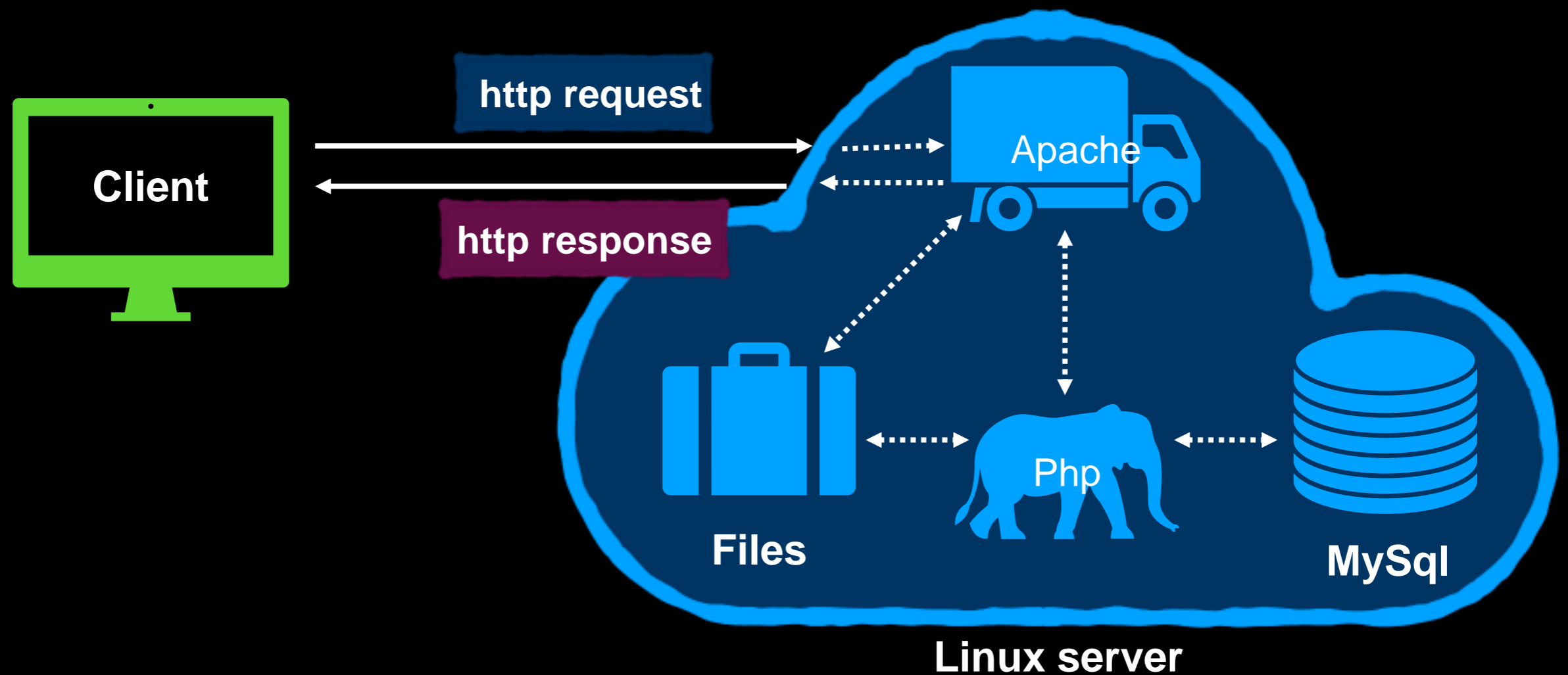
**http request**  
<http://www.gamer365.hu/index.php>



# Server architectures



# What's happening on the server? (on a common LAMP stack)



# HTTP message



## http response

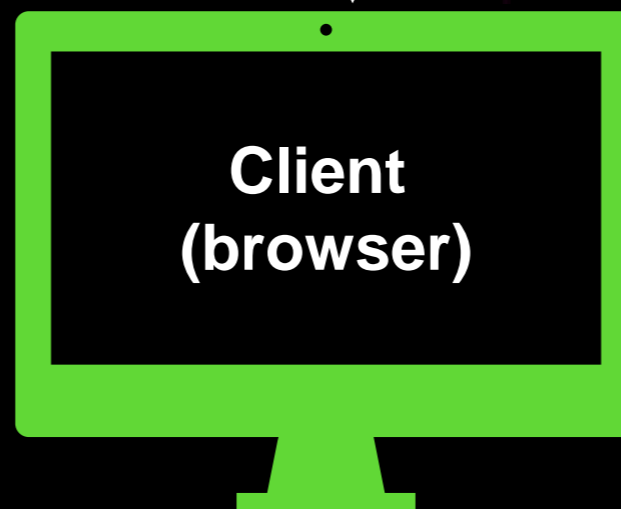
```
GET /index.php HTTP/1.1
Host: www.gamer365.hu
Connection: keep-alive
Pragma: no-cache
Cache-Control: no-cache
Upgrade-Insecure-Requests: 1
User-Agent: Mozilla/5.0 ...
Accept: text/html...
Accept-Encoding: gzip, deflate
Accept-Language: en-US,en;q=0.9,hu;q=0.8
```

## http request

<http://www.gamer365.hu/index.php>

```
HTTP/1.1 200 OK
Date: Tue, 08 Jan 2019 10:02:26 GMT
Server: Apache
Expires: Thu, 19 Nov 1981 08:52:00 GMT
Cache-Control: no-store, no-cache, must-revalidate, post-
check=0, pre-check=0
Pragma: no-cache
Keep-Alive: timeout=15, max=300
Connection: Keep-Alive
Transfer-Encoding: chunked
Content-Type: text/html; charset=utf-8

<html>...</html>
```



# Download a complete website



request: <http://www.gamer365.hu>

response: html document

HTML contains references for images

request: <http://www.gamer365.hu/img/logo.png>

response: png image

And StyleSheets

request: <http://www.gamer365.hu/css/page.css>

response: stylesheet document

And JavaScripts

request: <http://www.gamer365.hu/js/app.js>

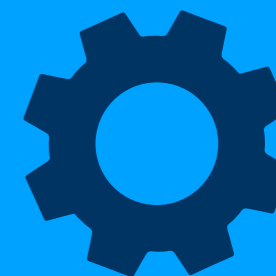
response: javascript document

...215 requests...

JavaScript app requests data

request: <http://www.gamer365.hu/article/123/comments>

response: json document



# Basic URL anatomy

## Uniform Resource Locator

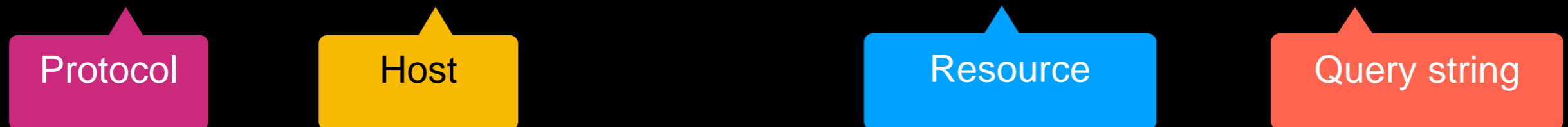
<http://www.gamer365.hu/img/logo.png>



<http://127.0.0.1/my.html>

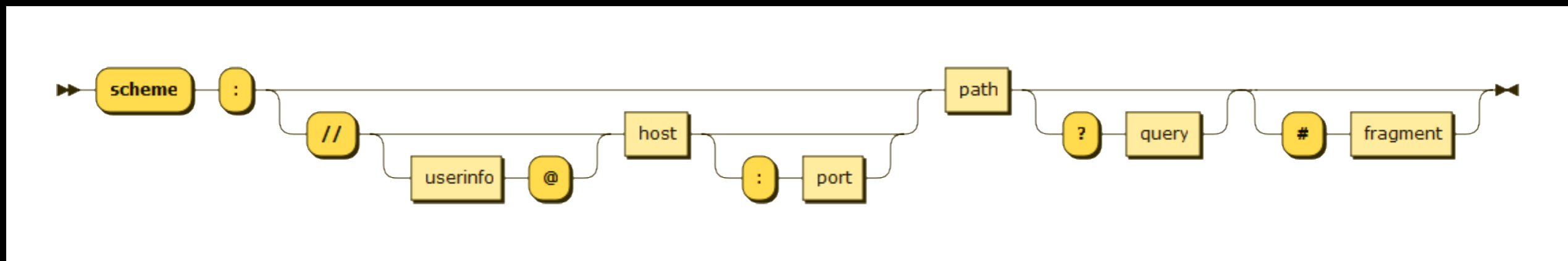
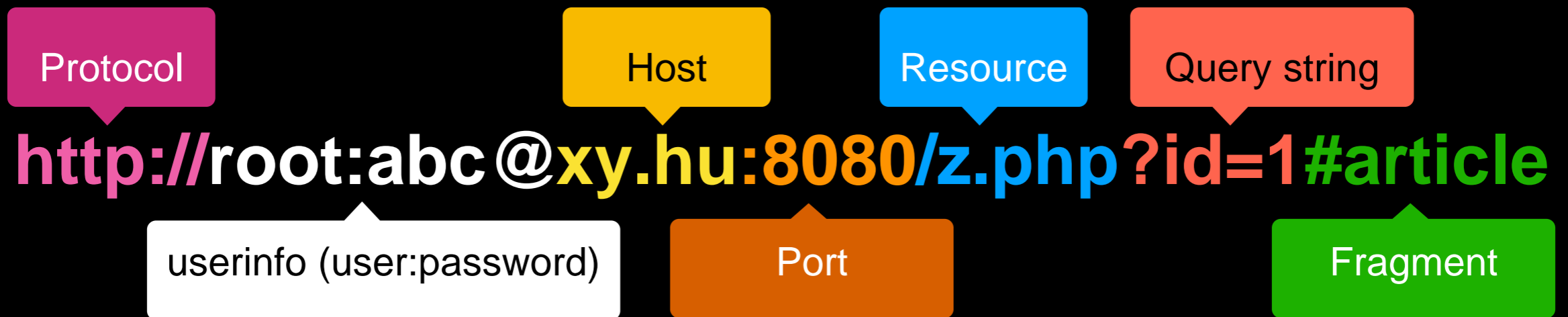


<http://www.gamer365.hu/article.php?id=12&big=1>





# Full URL anatomy



<https://en.wikipedia.org/wiki/URL>

# HTTP request

Http method

Resource

Protocol

**GET** /index.php **HTTP/1.1**

Host: **www.gamer365.hu**

Host

Connection: keep-alive

Pragma: no-cache

Cache-Control: no-cache

Upgrade-Insecure-Requests: 1

User-Agent: Mozilla/5.0 ...

Accept: text/html...

Accept-Encoding: gzip, deflate

Accept-Language: en-US,en;q=0.9,hu;q=0.8

**GET**

**POST**

**PUT**

**DELETE**

**HEAD**

**PATCH**

**TRACE**

**CONNECT**

**OPTIONS**

# HTTP response

Protocol

Status code

HTTP/1.1 200 OK

Date: Tue, 08 Jan 2019 10:02:26 GMT

Server: Apache

Expires: Thu, 19 Nov 1981 08:52:00 GMT

Cache-Control: no-store, no-cache, must-revalidate, post-check=0, pre-check=0

Pragma: no-cache

Keep-Alive: timeout=15, max=300

Connection: Keep-Alive

Transfer-Encoding: chunked

Content-Type: text/html; charset=utf-8

Content

<html>...</html>

Content type

Character encoding

## Status codes

### 1xx Informational

The request was received, continuing process

### 2xx Successful

The request was successfully received, understood, and accepted

### 3xx Redirection

Further action needs to be taken in order to complete the request

### 4xx Client Error

The request contains bad syntax or cannot be fulfilled

### 5xx Server Error

The server failed to fulfill an apparently valid request

# Programming the browser

