

Character classes

.	any character except newline
\w \d \s	word, digit, whitespace
\W \D \S	not word, digit, whitespace
[abc]	any of a, b, or c
[^abc]	not a, b, or c
[a-g]	character between a & g

Anchors

^abc\$	start / end of the string
\b	word boundary

Escaped characters

\. * \\	escaped special characters
\t \n \r	tab, linefeed, carriage return
\u00A9	unicode escaped ©

Groups & Lookaround

(abc)	capture group
\1	backreference to group #1
(?:abc)	non-capturing group
(?=abc)	positive lookahead
(?!abc)	negative lookahead

Quantifiers & Alternation

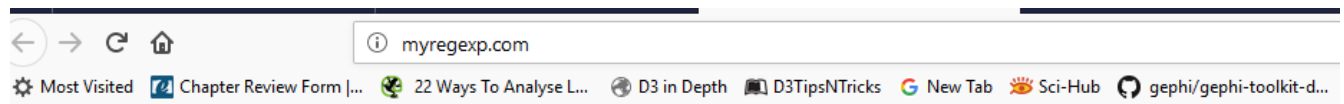
a* a+ a?	0 or more, 1 or more, 0 or 1
a{5} a{2,}	exactly five, two or more
a{1,3}	between one & three
a+? a{2,}?	match as few as possible
ab cd	match ab or cd

► To Regular Expression ανοίγει το logfile του παραδείγματος:

```
^([\d.]+) (\S+) (\S+) (\S+) (\S+) (\S+) ([\d]+) [a-zA-Z0-9_]*(\S+) [-]?[ ]?([(\w:/]+s[+-]\d{4})\ "(.+)") (\d{3}) (\S+) ([\d]+) (\S+) "(.+)") "(.+)\"
```

► To Regular Expression “πάνει” και IPv6 και IPv4 στην αρχή της κάθε γραμμής:

```
^([\d.]+|[\d:]+) (\S+) (\S+) (\S+) (\S+) (\S+) ([\d]+) [a-zA-Z0-9_]*(\S+) [-]?[ ]?([(\w:/]+s[+-]\d{4})\ "(.+)") (\d{3}) (\S+) ([\d]+) (\S+) "(.+)") "(.+)\"
```



Regular expression (JavaScript)

```
^([\d.]+|[\d:]+) (\S+) (\S+) (\S+) (\S+) (\S+) ([\d]+) [a-zA-Z0-9_]*(\S+) [-]?[ ]?\
```

Text to test

```
0:0:0:0:0:0:0:1 192.168.1.65 838 838 0:0:0:0:0:0:0:1 - GET 8080 ?action=delete&studentId=15 - [03/May/2016:21:55:29 +0300] "127.0.0.1 192.168.1.65 838 838 127.0.0.1 - GET 8080 ?action=delete&studentId=15 - [03/May/2016:21:55:29 +0300] "127.0.0.1 192.168.1.65 838 838 127.0.0.1 - GET 8080 - [03/May/2016:21:55:41 +0300] "GET /CRUDProject/ HTTP/1.1"
```

Capture groups

```
#0 0:0:0:0:0:0:0:1 192.168.1.65 838 838 0:0:0:0:0:0:0:1 - GET 8080 ?action=delete&studentId=15 - [03/May/2016:21:55:29 +0300] "127.0.0.1 192.168.1.65 838 838 127.0.0.1 - GET 8080 ?action=delete&studentId=15 - [03/May/2016:21:55:29 +0300] "127.0.0.1 192.168.1.65 838 838 127.0.0.1 - GET 8080 - [03/May/2016:21:55:41 +0300] "GET /CRUDProject/ HTTP/1.1"
#1 0:0:0:0:0:0:0:1
#2 192.168.1.65
#3 838
#4 838
#5 0:0:0:0:0:0:0:1
#6 -
#7 GET
#8 8080
```