/^[REG]ular (EX)pressions$/

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Car
Carpet
Careful
Carnival
Carriageway


4
Zeal
Zero
Zone
Zoom

email@outlook.com
mymail@gmail.com
yourmail@yahoo.com

11

09351286757

09134535621

09127865322

09211535412

grep

- print lines matching a pattern

egrep = grep -E

- Interpret PATTERN as an extended regular expression

grep -P

- Interpret the pattern as a Perl-compatible regular expression

```
grep -E 'regex' file.txt

ls | grep -P '^\..*'

grep -o -P 'regex' file.txt
```

sed

- stream editor for filtering and transforming text

sed -E PATTERN

- use extended regular expressions in the script

s/find/replace/g

sed -e ‘s/:/-/g’ /etc/passwd

Vim

find

`:g/PATTERN`

Find and replace

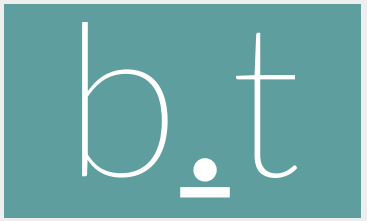
`:s/find/replace/g`

programming languages

Java
JavaScript
C
C++
C#
Perl
Python
Ruby
PHP
Sed
Go
& ...


book
book
bookshop
checkbook
foo@book.com
www.book.com

DOT



bat

but

bet

bit

b0t

b t

b$t

b@t

Whitespace & not a whitespace

Character set

[aeiou]

glib jocks vex dwarves!

Aqueous

You are awesome!

negated set

[^aeiou]

glib jocks vex dwarves!

Aqueous

You are awesome!

range

[g-s]

range

[4-8]

0123456789

43-76 ?

Wrong

[43-76]

Right

4[3-9]|[5-6][0-9]|7[0-6]

range

[a-eh-mp-v]

Matches 1 or more

`[a-z]+`

Matches 0 or more

`[a-z]*`

b[a-z]+

*b[a-z]**

b

be

bea

bear

bears

b

be

bea

bear

bears

optional

colou?r

color colour

---

alternation

b(*a*|*e*|*i*)d

bad bud bod bed bid


quantifier
b\w{2,3}
Max length
Min length
b
be
bea
bear
bears

Beginning

`^\w+`

she sells seashells

End

`\w+$`

she sells seashells

Word boundary

`s\b`

she sells seashells

`\bs`

she sells seashells

Not word boundary

`s\B`

she sells seashells

`\Bs`

she sells seashells

Capturing group

(ma)+

ma

mam

mama

mamam!

Positive lookahead

(?=ABC)

Negative lookahead

(?!ABC)

\d(?=px)

\d(?!px)

1pt
2px
3em
4px

1pt
2px
3em
4px

Positive lookbehind

(?<=ABC)

Negative lookbehind

(?<!ABC)

(?<=data:)\w+

(?<!data:)\w+

data:100
date:1396
data:naser
Date:2017

data:100
date:1396
data:naser
Date:2017

Back reference

(\w)a\1

hah

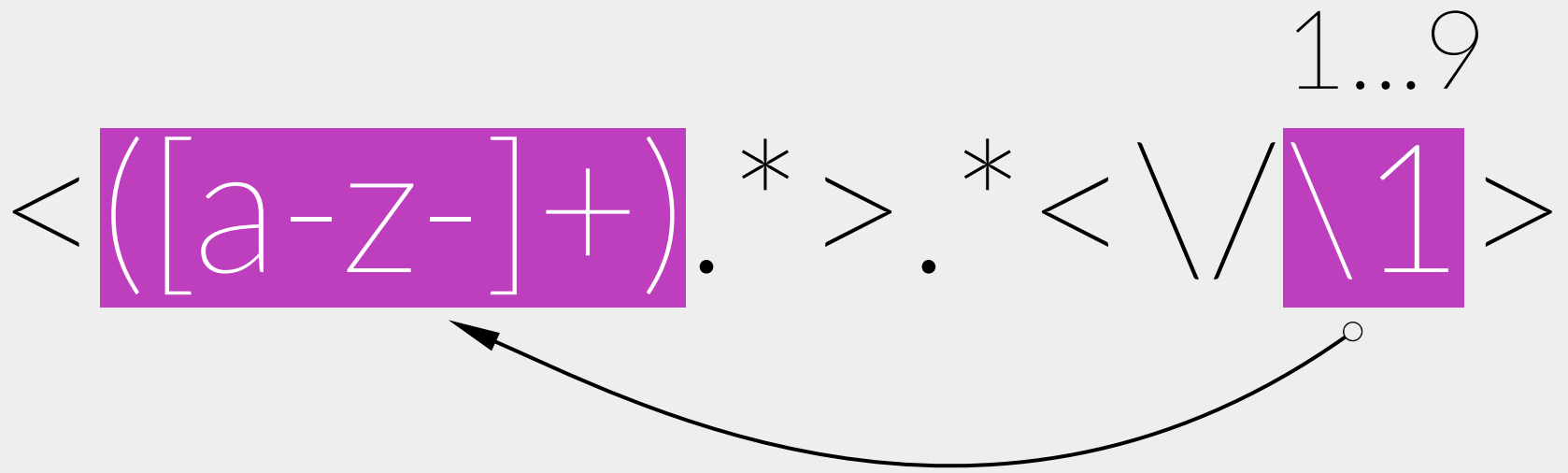
dad

bad

dab

gag

gab



Google

* Welcome *

Non-capturing group

(?:ABC)

(?:hi)(ma)\1

himahi

himama

```
^(0[1-9]|1[0-2])[\/](0[1-9]|[12]\d|3[01])[\/](19|20)\d{2}$
```

06/24/2017

13/27/2016

10/29/1850

07/35/1995

The
end