## Basics

### versions

perl 4 1991

perl 5 1994

updates

Raku (formerly known as perl 6)

CPAN

### extensions

.pl

.sh

### features

procedural

OOP

text processing

third party modules

not as fast as C

working with text/file data

sys admin

web development

network

GUI

#! shebang

tells the shell, which interpreter to use

which is “perl”

### comments

# single line comment

=begin multi line comment

(POD)

=end

=cut

## commands & functions

### print

does not add new line automatically

### say

adds new line automatically

### chop

### chomp

### qw

## Data Types

### Scalars

$ symbol

string

number

integers

floating point numerals

octal → add a 0 at the start (0254)

binary → add a 0b at the start (0b111)

hex → add a 0b at the start (0xb111)

### Arrays

@ symbol

list of scalars (numeric index)

### Hashes

% symbol

key:value pairs

## Operators

### arithmetic

+

-

\*

/

%

\*\* exponent

2\*\*3 ( 2 raised to 3)

++

--

### assignment

=

+= a+=b

a = a + b

-=

\*=

/=

### bitwise

& and

| or

~ negate

^ Ex-or

<< left shift

>> right shift

### logical

and

&&

or

||

not

relational (comparative, equality)

<

<=

>

>=

==

!=

#### string operators

lt

gt

le

ge

eq

ne

cmp

### file test operators

-e exists

-r readable

-w

-x executable

-z file is empty

-s return size in bytes

-f regular file

-d a directory

-B binary file

-b block file

## strings

text data

scalar literal constant

"" double quotes

interpolated strings

' ' single quotes

non-interpolated

### escape sequence

\n new line

\t tab

\b backspace

\\ backslash

\' '

\" "

\v vertical tab

index

| l | u | k | e |
| --- | --- | --- | --- |
| 0 | 1 | 2 | 3 |
| -4 | -3 | -2 | -1 |

modification

s/word/replace/

/r return a copy

/i case insensitive

/g replace all occurrences

### string function

index

rindex

lc

uc

length

reverse

substr

## stdin

STDIN

<>

<STDIN>

## list & array

(val1, val2, val3)

indexing

flatten

(so no 2D)

range

splice

## hash

key : value

associative array

## flow control

### false

0

0.0

"" empty string

'0'

( ) empty list

undef

### if else

if

elsif

else

unless

### while

while

do while

until

### for

for

foreach

last

next

## Special variables

### $\_

## Files

open()

file handler

mode

filename

### modes

< read

read only access

> write

truncate, opens like a new file

creates

>> append

write from the end

creates

### seek()

seek(filehandler, position, whence)

whence → 0 SEEK\_SET from the start

1 SEEK\_CUR current position

2 SEEK\_END from the end

### tell()

## Regular Expressions

### perl regex operators

=~

string =~ xyz

!~

m// match operator

m{/} /

m”/” /

m[he] he

s/// substitute operator

i ignore case

### regex metacharacters

perl character classes

^ starts with

$ ends with

. placeholder

[ ] [aeiou]

[a-z] any lower case

[a-zA-Z] any alphabet

[0-9] 0123456789

[0-39] 01239

[^ ] invert of [ ]

[^0-9] every/any char except numbers

. any character (except new line)

\* zero or more occurrences of pattern left to it

+ one or more occurrences of pattern left to it

? zero or one occurrences of pattern left to it

{x, y } min x number of times, max y times

{2} 2 times

{1, 5} min 1, max 5

{3,} min3, max any number

### special sequences

\s whitespace

new line, tab, return , form feed

\S invert of whitespace

\w word

alphanumeric or \_

[a-zA-Z0-9\_]

\W invert of word

\d digit

\d+ any length digit

\D non digit

### perl special regex variables

$` all text before the match

$' all text after

$& the matched part