## Python refresher

REPL

read eval print loop

data science

ML

AI

cloud computing

devops

automation

testing

embedded

web (django, flag)

~~cyber security~~

## data

### data types

int

float

complex

str

double or single quotes

index

negative index

slicing

upper range not included

no exceptions

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| c | o | r | o | n | a |
| 0 | 1 | 2 | 3 | 4 | 5 |
| -6 | -5 | -4 | -3 | -2 | -1 |

immutable

functions: upper, lower

title, capitalize,

replace

find, count

isalpha, isdigit, is alnum

### comments:

# single line comments

""" """ **used** like multiline comments

### keywords:

def

True False

global

pass

## functions:

### general

print

len

type

### cast:

int

float

str

list()

tuple()

set()

range()

### user defined

def

can pass 0 to n number of values

can return 0 to n number of values

no function overloading

single definition (latest) exists

default values

named arguments

variable num of arguments: args

variable n um of keyword arguments: kwargs

global

recursion

nesting

### 

## operators:

### arth:

+

-

\*

/

% modulo

=

// floor division

\*\* power (exponent)

### logical:

and

or

not

### bitwise:

<<

>>

^

&

|

~

### relational (comparison)

<

>

<=

>=

==

!=

### identity

is

is not

### membership

in

not in

## Data structures

### list:

sequences

of any type

index

negative index

slicing

mutable

functions:

index, count

append, insert

pop, remove, clear

sort, reverse

### tuples:

sequences

of any type

index

negative index

slicing

immutable

functions:

index, count

### set:

sequences

no duplicates

unordered

immutable members

by itself set is mutable

no nest

### dict:

key: value pair

unordered

key:

immutable

no duplicates

values:  
 anything

mutables

nesting

by themselves dict is mutable

functions:

get

update

values, keys

items

pop

## control statements

### if else

if

elif

else

pass

while

for

else

parked topics:

~~list comprehensions~~

bitwise operations

XML

YAML

REST API

date & time

globals() locals()

python + C

python + DLL

time.time()

timeit