## Basics

CPython

python.org

install

pip

ubuntu:

sudo apt install python3-pip

windows:

get-pip.py

### interpret

## File

f = open()

### mode

r read

w write

(truncates, always creates new file)

a append

r+ read & write

b binary mode

### methods

f.read(n)

n num of characters

without n, reads entire file

f.readline()

f.readlines()

list of strings (lines)

f.write()

f.seek()

f.tell()

f.readable()

f.writable()

f.close()

#### attribute

f.closed

### file lock

filelock.FileLock(“books.text”)

Portalocker

cross platform

### linecache

getline

clearcache()

checkcache()

### zipfile.ZipFile

extractall()

extract()

printdir()

loop:

objz.write(filename)

## string

### whitespace:

space, \n, \t, \v, \r

### methods:

split()

splitlines()

## regular expressions

\*.py

### meta characters

. matches any character (except new line)

^ starts with a certain character

$ ends with a certain character

\* zero or more occurrences

+ one or more occurences

? zero or one occurrence

[ ] set of characters

[a-f] abcdef

[1-5] 12345

[0-39] 01239

[^ ] invert of [ ]

[^0-9] all non digit character

{ x, y} at least x number of occurrence

at most y number of occurrence

{2, 4} len can be 2, 3, 4

{2} len should 2

{2,} len can be 2 or morew

| alteration

( ) sub patterns

### special sequences

\ escape sequence

\$ $

\. .

\\ \

\d any decimal digit

\D any non decimal digit

\s whitespace

space, \n, \t, \v, \r

\S non whitespace

\w alphanumeric characters & underscore

[a-zA-Z0-9\_]

\W invert of \w

### re

### attributes & methods

re.match()

re.fullmatch()

re.findall()

re.sub()

re.subn()

re.split()

re.compile()

re.search()

re.IGNORECASE

re.ASCII

## common Modules

### web development

Requests

Beautiful Soup

scrape

mechanize

smtp

libgmail

Google Maps

Selenium

### web frameworks

django

pyramid

turbogears

pylons

repoz.bfg

flask

web2py

### GUI

TkInter

PyGtk

PyQt

WxPython

PyjamasDesktop

PySimpleGUI

### configuration (data) files

XML

ElementTree

json

json

ujson

yaml

yaml

pyaml

csv

csv.reader/csv.writer

excel

openpyxl

XlsxWriter

pandas

csv

excel

sql

### xml

metadata

properties:

tag

attrib

text information

chile elements

pop()

for deletion

example: root\_a[1][1].aatrib.pop(‘id’, None)

## excel

### openpyxl

## yaml

YAML Ain’t Markup Language

\_\_\_ document

three dashes

multiple line

| treats like multiple lines

> treats like a single line

null (same as None python)

~

null

bool

True On

False Off

arrays

[vv, vv, vv]

become lists

* vv
* gg
* kk

## web

### requests

### BeautifulSoup

python3-bs4

beautifulsoup4

## extras:

threads

async, await

data analysis

pandas