CSV Files Reader/Writer/DictReader/DictWriter

-----------------------------------

ex 1)

import csv

with open('C:\\Users\\Desktop\\names.csv','r') as csv\_file:

csv\_reader = csv.reader(csv\_file)

for line in csv\_reader:

print(line)

ex 2)

import csv

with open('C:\\Users\\Desktop\\names.csv','r') as csv\_file:

csv\_reader = csv.reader(csv\_file)

for line in csv\_reader:

print(line[2])

ex 3)

import csv

with open('C:\\Users\\Desktop\\names.csv','r') as csv\_file:

csv\_reader = csv.reader(csv\_file)

next(csv\_reader)

for line in csv\_reader:

print(line[2])

ex 4)

import csv

with open('C:\\Users\\Desktop\\names.csv','r') as csv\_file:

csv\_reader = csv.reader(csv\_file)

with open('C:\\Users\\Desktop\\new\_names.csv','w') as new\_file:

csv\_writer = csv.writer(new\_file, delimiter = '\t')

for line in csv\_reader:

csv\_writer.writerow(line)

print("\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*")

ex 5)

import csv

with open('C:\\Users\\Desktop\\newnames.csv','r') as csv\_file:

csv\_reader = csv.reader(csv\_file, delimiter = '\t')

for line in csv\_reader:

print(line)

ex 6)

import csv

with open('C:\\Users\\Desktop\\newnames.csv','r') as csv\_file:

csv\_reader = csv.DictReader(csv\_file, delimiter = '\t')

for line in csv\_reader:

print(line)

ex 7)

import csv

with open('C:\\Users\\Desktop\\names.csv','r') as csv\_file:

csv\_reader = csv.DictReader(csv\_file)

for line in csv\_reader:

print(line)

ex 7)

import csv

with open('C:\\Users\\Desktop\\names.csv','r') as csv\_file:

csv\_reader = csv.DictReader(csv\_file)

with open('C:\\Users\\Desktop\\new\_names.csv', 'w') as new\_file:

filednames = ['first\_name', 'last\_name', 'email']

csv\_writer = csv.DictWriter(new\_file, fieldnames=filednames, delimiter = '\t')

csv\_writer.writeheader()

for line in csv\_reader:

csv\_writer.writerow(line)

ex 8)

import csv

with open('C:\\Users\\Desktop\\names.csv','r') as csv\_file:

csv\_reader = csv.DictReader(csv\_file)

with open('C:\\Users\\Desktop\\new\_names.csv', 'w') as new\_file:

filednames = ['first\_name', 'last\_name']

csv\_writer = csv.DictWriter(new\_file, fieldnames=filednames, delimiter = '\t')

csv\_writer.writeheader()

for line in csv\_reader:

del line['email']

csv\_writer.writerow(line)

Property Decorators-Getters,Setters and Deleters

------------------------------------------------

ex 1) class Employee:

def \_\_init\_\_(self, first, last):

self.first = first

self.last = last

self.email = first +'.'+ last +'@gvipl.com'

def fullname(self):

return '{} {}'.format(self.first, self.last)

emp1 = Employee('Kalyan', 'Kumar')

emp1 = 'pradeep'

print(emp1.first)

print(emp1.email)

print(emp1.fullname())

ex 2) class Employee:

def \_\_init\_\_(self, first, last):

self.first = first

self.last = last

@property

def email(self):

return '{}.{}@gvipl.com'.format(self.first, self.last)

def fullname(self):

return '{} {}'.format(self.first, self.last)

emp1 = Employee('Kalyan', 'Kumar')

emp1 = 'pradeep'

print(emp1.first)

print(emp1.email)

print(emp1.fullname())

ex 3) class Employee:

def \_\_init\_\_(self, first, last):

self.first = first

self.last = last

@property

def email(self):

return '{}.{}@gvipl.com'.format(self.first, self.last)

@property

def fullname(self):

return '{} {}'.format(self.first, self.last)

emp1 = Employee('Kalyan', 'Kumar')

emp1 = 'pradeep'

print(emp1.first)

print(emp1.email)

print(emp1.fullname)

ex 4) class Employee:

def \_\_init\_\_(self, first, last):

self.first = first

self.last = last

@property

def email(self):

return '{}.{}@gvipl.com'.format(self.first, self.last)

@property

def fullname(self):

return '{} {}'.format(self.first, self.last)

@fullname.setter

def fullname(self, name):

first, last = name.split(' ')

self.first = first

self.last = last

@fullname.deleter

def fullname(self):

print('Delete Name !')

self.first = None

self.last = None

emp1 = Employee('Kalyan', 'Kumar')

emp1.fullname = 'Kalyan kumar'

print(emp1.first)

print(emp1.email)

print(emp1.fullname)

del emp1.fullname

Json Files using Python

---------------------------

Json Python

Object dict

array list

string str

number{int} int

number{real} float

true True

false False

null None

ex 1)

import json

with open('C:\\Users\\Desktop\\states.json') as f:

data = json.load(f)

for state in data['states']:

print(state)

ex 2)

import json

with open('C:\\Users\\Desktop\\states.json') as f:

data = json.load(f)

for state in data['states']:

del state['area\_codes']

with open('C:\\Users\\Desktop\\new\_states.json', 'w') as f:

json.dump(data, f, indent=2)

ex 3)

import json

from urllib.request import urlopen

with urlopen("https://finance.yahoo.com/webservice/v1/symbols/allcurrencies/quote?format=json") as response:

source = response.read()

data = json.loads(source)

print(data)

ex 4)

import json

from urllib.request import urlopen

with urlopen("https://finance.yahoo.com/webservice/v1/symbols/allcurrencies/quote?format=json") as response:

source = response.read()

data = json.loads(source)

#print(data)

# print(json.dumps(data, indent=2))

usd\_rates = dict()

for item in data['list']['resources']:

name = item['resource']['fields']['name']

price = item['resource']['fields']['price']

usd\_rates[name] = price

print(usd\_rates)

# print(50 \* float(usd\_rates['USD/INR']))

Date,Time,Timedelta and Timezones

----------------------------------

ex 1) import datetime

d = datatime.date(2018, 3, 11)

print(d)

ex 2) tday = datetime.date.today()

print(tday)

print(tday.year)

print(tday.weekday())

print(tday.isoweekday())

# Monday 0 sunday 6

# Monday 1 sunday 7 (Iso)

ex 3) tdelta = datetime.timedelta(days=7)

tday = datetime.date.today()

print(tday + tdelta)

print(tday - tdelta)

ex 4)dbay = datetime.date(2018, 9, 10)

till\_bday = bday -tday

print(till\_bday)

print(till\_bday.days)

print(till\_bday.total\_seconds())

ex 5) t = datetime.time(9, 30, 45, 10000)

print(t)

print(t.hour)

ex 6) t = datetime.datetime(2018, 3, 11, 11, 30, 30, 100000)

print(t)

print(t.date())

print(t.time())

print(t.year)

tdelta = datetime.timedelta(days=7)

print(t+tdelta)

ex 7) dt\_today = datetime.datetime.today()

dt\_now = datetime.datetime.now()

dt\_utcnow = datetime.datetime.utcnow()

print(dt\_today)

print(dt\_now)

print(dt\_utcnow)

ex 8) pip install pytz

import datetime

import pytz

dt = datetime.datetime(2018, 3, 11, 11, 30, 45, tzinfo = pytz.UTC)

print(dt)

dt\_now = datetime.datetime.now(tz=pytz.UTC)

print(dt\_now)

dt\_utcnow = datetime.datetime.utcnow().

replace(tzinfo = pytz.UTC)

print(dt\_utcnow)

ex 9)import datetime

import pytz

dt\_utcnow = datetime.datetime.utcnow().

replace(tzinfo = pytz.UTC)

print(dt\_utcnow)

dt\_mtn =dt\_utc.astimezone(pytz.timezone('US/Mountain'))

print(dt\_mtn)

for tz in pytz.all\_timezones:

print(tz)

ex 10)

import datetime

import pytz

dt\_utcnow = datetime.datetime.utcnow().

replace(tzinfo = pytz.UTC)

print(dt\_utcnow)

dt\_mtn = datetime.datetime.now()

#dt\_east = dt\_mtn.astimezone(pytz.timezone('US/Eastern'))#Error

mtn\_tz = pytz.timezone('US/Mountain)

dt\_mtn = mtn\_tz.localize(dt\_mtn)

print(dt\_mtn)

ex 11)

import datetime

import pytz

dt\_mtn = datetime.datetime.now(tz=pytz.timezone('US/Mountain'))

print(dt\_mtn.strftime('%B %d, %Y'))

dt\_str = 'March 10, 2018'

dt = datetime.datetime.strptime(dt\_str,'%B %d, %Y')

print(dt)

#strftime -- datetime to string

#strptime -- string to datetime

------------------------------------------------------------------------------------------------------------------------

import datetime

import pytz

# Naive

# d = datetime.date(2001, 9, 11)

tday = datetime.date.today()

# weekday() - Monday is 0 and Sunday is 6

# print(tday)

# isoweekday() - Monday is 1 and Sunday is 7

# print(tday)

# datetime.timedelta(days=0, seconds=0, microseconds=0, milliseconds=0, minutes=0, hours=0, weeks=0)

tdelta = datetime.timedelta(hours=12)

# print(tday + tdelta)

# date2 = date1 + timedelta

# timedelta = date1 + date2

bday = datetime.date(2016, 9, 24)

till\_bday = bday - tday

# print(till\_bday.days)

t = datetime.time(9, 30, 45, 100000)

# dt = datetime.datetime.today()

# dtnow = datetime.datetime.now()

# print(dir(datetime.datetime))

# print(dt)

# print(dtnow)

dt = datetime.datetime(2016, 7, 24, 12, 30, 45, tzinfo=pytz.UTC)

# print(dir(dt))

dt\_utcnow = datetime.datetime.now(tz=pytz.UTC)

# print(dt\_utcnow)

dt\_utcnow2 = datetime.datetime.utcnow().replace(tzinfo=pytz.UTC)

# print(dt\_utcnow2)

# dt\_mtn = dt\_utcnow.astimezone(pytz.timezone('US/Mountain'))

# print(dt\_mtn)

dt\_mtn = datetime.datetime.now()

mtn\_tz = pytz.timezone('US/Mountain')

dt\_mtn = mtn\_tz.localize(dt\_mtn)

# print(dt\_mtn)

dt\_east = dt\_mtn.astimezone(pytz.timezone('US/Eastern'))

# print(dt\_east)

print(dt\_mtn.strftime('%B %d, %Y'))

dt\_str = 'July 24, 2016'

dt = datetime.datetime.strptime(dt\_str, '%B %d, %Y')

print(dt)

# strftime - Datetime to String

# strptime - String to Datetime