## RIGHT SOLUTION

def parse\_file(datafile):

workbook = xlrd.open\_workbook(datafile)

sheet = workbook.sheet\_by\_index(0)

data = {}

# process all rows that contain station data

for n in range (1, 9):

station = sheet.cell\_value(0, n)

cv = sheet.col\_values(n, start\_rowx=1, end\_rowx=None)

maxval = max(cv)

maxpos = cv.index(maxval) + 1

maxtime = sheet.cell\_value(maxpos, 0)

realtime = xlrd.xldate\_as\_tuple(maxtime, 0)

**data[station] = {"maxval": maxval,**

**"maxtime": realtime}**

print data

return data

def save\_file(data, filename):

with open(filename, "w") as f:

w = csv.writer(f, delimiter='|')

w.writerow(["Station", "Year", "Month", "Day", "Hour", "Max Load"])

for s in data:

**year, month, day, hour, \_ , \_= data[s]["maxtime"]**

**w.writerow([s, year, month, day, hour, data[s]["maxval"]])**

## QUESTION WITH EXAMPLE AND MY SOLUTION

Find the time and value of max load for each of the regions COAST, EAST, FAR\_WEST, NORTH, NORTH\_C, SOUTHERN, SOUTH\_C, WEST and write the result out in a csv file, using pipe character | as the delimiter.

An example:

Station|Year|Month|Day|Hour|Max Load

COAST|2013|01|01|10|12345.6

EAST|2013|01|01|10|12345.6

FAR\_WEST|2013|01|01|10|12345.6

NORTH|2013|01|01|10|12345.6

NORTH\_C|2013|01|01|10|12345.6

SOUTHERN|2013|01|01|10|12345.6

SOUTH\_C|2013|01|01|10|12345.6

WEST|2013|01|01|10|12345.6

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import xlrd

import os

import csv

from zipfile import ZipFile

datafile = "2013\_ERCOT\_Hourly\_Load\_Data.xls"

outfile = "2013\_Max\_Loads.csv"

def open\_zip(datafile):

with ZipFile('{0}.zip'.format(datafile), 'r') as myzip:

myzip.extractall()

def parse\_file(datafile):

workbook = xlrd.open\_workbook(datafile)

sheet = workbook.sheet\_by\_index(0)

data = None

maxes = []

times = []

for i in range(1,8):

liste = sheet.col\_values(i, start\_rowx=1, end\_rowx=None)

maxval = max(liste)

maxes.append(maxval)

maxpos = liste.index(maxval) + 1

maxtime = sheet.cell\_value(maxpos, 0)

realtime = [xlrd.xldate\_as\_tuple(maxtime, 0)]

realtime.list()

times.append(realtime)

years = []

mons = []

days = []

hrs = []

for e in times:

years.append(e[0])

mons.append(e[1])

days.append(e[2])

hrs.append(e[3])

stations = ["COAST", "EAST", "FAR\_WEST", "NORTH", "NORTH\_C", "SOUTHERN", "SOUTH\_C", "WEST"]

return data

def save\_file(data, filename):

with open(filename, "w") as f:

w = csv.writer(f, delimiter='|')

w.writerow(["Station", "Year", "Month", "Day", "Hour", "Max Load"])

for s in range(0,7):

w.writerow([stations[s], years[s], mons[s], days[s], hrs[s], maxes[s]])