script.py

#!/usr/bin/env python3

import re

import csv

def contains\_domain(address, domain):

"""Returns True if the email address contains the given,domain,in the domain position, false if not."""

domain = r'[\w\.-]+@'+domain+'$'

if re.match(domain,address):

return True

return False

def replace\_domain(address, old\_domain, new\_domain):

"""Replaces the old domain with the new domain in the received address."""

old\_domain\_pattern = r'' + old\_domain + '$'

address = re.sub(old\_domain\_pattern, new\_domain, address)

return address

def main():

"""Processes the list of emails, replacing any instances of the old domain with the new domain."""

old\_domain, new\_domain = 'abc.edu', 'xyz.edu'

csv\_file\_location = '/home/student-00-70109c360b88/data/user\_emails.csv'

report\_file = '/home/student-00-70109c360b88/data' + '/updated\_user\_emails.csv'

user\_email\_list = []

old\_domain\_email\_list = []

new\_domain\_email\_list = []

with open(csv\_file\_location, 'r') as f:

user\_data\_list = list(csv.reader(f))

user\_email\_list = [data[1].strip() for data in user\_data\_list[1:]]

for email\_address in user\_email\_list:

if contains\_domain(email\_address, old\_domain):

old\_domain\_email\_list.append(email\_address)

replaced\_email = replace\_domain(email\_address,old\_domain,new\_domain)

new\_domain\_email\_list.append(replaced\_email)

email\_key = ' ' + 'Email Address'

email\_index = user\_data\_list[0].index(email\_key)

for email\_address in user\_email\_list:

if contains\_domain(email\_address, old\_domain):

old\_domain\_email\_list.append(email\_address)

replaced\_email = replace\_domain(email\_address,old\_domain,new\_domain)

new\_domain\_email\_list.append(replaced\_email)

email\_key = ' ' + 'Email Address'

email\_index = user\_data\_list[0].index(email\_key)

for user in user\_data\_list[1:]:

for old\_domain, new\_domain in zip(old\_domain\_email\_list, new\_domain\_email\_list):

if user[email\_index] == ' ' + old\_domain:

user[email\_index] = ' ' + new\_domain

f.close()

with open(report\_file, 'w+') as output\_file:

writer = csv.writer(output\_file)

writer.writerows(user\_data\_list)

output\_file.close()

main()