import socket

def portScan(port):

if s.connect\_ex((host, port)):

print('The port is closed!')

else:

print('The port is open')

# Menu with lists of options

def menu():

print('What do you want to do? Here a list of options:\n')

print('[1] Scan a single port\n')

print('[2] Scan a set of ports\n')

print('[3] Scan all ports (display only opened ones)\n')

print('[0] End program\n')

action = int(input('Insert the number of the action: '))

return action

# Function to scan a single port

def scanOnePort(host):

port = int(input('Enter the port to scan: '))

print('Scanning port %s...' % str(port))

portScan(port)

print('\n')

# Function to scan a series of ports

def scanSomePorts(host):

ports\_name = input(

'Insert a list of ports following this format: ##, ##, ###, #, ####\n')

ports = ports\_name.split(', ') # List of strings

# Converts from a list of string to a list of int

ports\_int = []

for port in ports:

ports\_int.append(int(port))

# Checks every single port

for port in ports\_int:

print('Scanning port %s...' % str(port))

portScan(port)

print('\n')

# TODO: return just opened ports in a list/set

def scanAllPorts(host):

for i in range(1, 49151):

port = i

print('Scanning port %s...' % str(port))

portScan(port)

print('\n')

s = socket.socket(socket.AF\_INET, socket.SOCK\_STREAM)

# Set timeout to skip longer scan port

# s.settimeout(10)

host = input('Enter the IP to scan: ')

while True:

action = menu()

if action == 0:

break

elif action == 1: # Accept one port

scanOnePort(host)

elif action == 2: # Accept indefined number of ports

scanSomePorts(host)

elif action == 3: # Checks every single port from 1 to 49151

scanAllPorts(host)

# TODO: Add option to change host.

else:

print('This is not a correct option.\n')

print('\n')

# host = '137.74.187.104' # hackthissite.org

# port = 21