# Algorithm for file updates in Python

## Project description

The purpose of this Python script is to update a file containing an allow list of IP addresses. The script takes two inputs: the name of the file to be updated (import\_file) and the file containing the list of addresses to be removed (import\_remove\_list). It then performs the necessary operations to update the allow list.

## Open the file that contains the allow list

Use the open function in Python to open the file specified by import\_file in read mode.

with open(import\_file, "r") as addresses:

ip\_addresses = addresses.read().split()

## Read the file contents

Use the read method to read the contents of the file, obtaining a string.

## Convert the string into a list

Split the string into a list of IP addresses using the split method. This list is named ip\_addresses.

## Iterate through the remove list

Open the file specified by import\_remove\_list in read mode.

Read its contents and split it into a list of addresses (remove\_list).

Iterate through each element in ip\_addresses.

with open(import\_remove\_list, "r") as remove:

remove\_list = remove.read().split()

for element in ip\_addresses:

if element in remove\_list:

ip\_addresses.remove(element)

## Remove IP addresses that are on the remove list

If an element in ip\_addresses is found in the remove\_list, remove that element from ip\_addresses.

## Update the file with the revised list of IP addresses

Join the elements of ip\_addresses into a string, separated by newline characters.

Open the original file (import\_file) in write mode.

Write the updated string back to the file.

ip\_addresses = "\n".join(ip\_addresses)

with open(import\_file, "w") as updated:

updated.write(ip\_addresses)

## Summary

This Python script provides a flexible and automated way to manage an allow list of IP addresses. It allows for easy removal of specified addresses, ensuring that the file is updated with the latest configurations. The script enhances the efficiency of maintaining IP address allow lists, which is crucial for network security configurations.