Algorithm for file updates in Python

Project description

The project involves updating a file that contains an allow list of IP addresses. The goal is to remove specific IP addresses provided in a remove list from the allow list.

Open the file that contains the allow list

The algorithm starts by using the open() function with the "r" parameter to open the file containing the allow list.

with open(import_file, "r") as file:

Read the file contents

The algorithm utilizes the .read() method to read the contents of the file and store them in a variable named ip_addresses.

ip_addresses = file.read()

Convert the string into a list

The algorithm utilizes the .read() method to read the contents of the file and store them in a variable named ip_addresses.

ip_addresses = ip_addresses.split()

Iterate through the remove list

The algorithm employs a for loop to iterate through each element (IP address) in the ip_addresses list.

for element in ip_addresses:

Remove IP addresses that are on the remove list

conditional statement checks within a loop if the current element is in the remove list. If true, it removes the element using the .remove() method

```
if element in remove_list:
    ip_addresses.remove(element)
```

Update the file with the revised list of IP addresses

After the iterations and removals, the algorithm converts the updated ip_addresses list back to a string using the .join() method. Finally, it uses the open() function with the "w" parameter to open the file for writing and updates its contents with the modified list.

```
ip_addresses = " ".join(ip_addresses)
with open(import_file, "w") as file:
    file.write(ip_addresses)
```

Summary

The algorithm begins by opening the file and reading its contents, which are then converted into a list. It iterates through this list, removing elements that match the remove list. The modified list is then converted back to a string and used to update the original file.