

Algorithm for file updates in Python

Project description

As a security professional at a healthcare company, your task is to update an allow list file that controls access to restricted content. The allow list consists of IP addresses of employees who can access personal patient records. Additionally, there is a remove list that specifies IP addresses that need to be removed from the allow list.

Read the file contents

The below code will open and read the file.

```
Allow_list = "Users/....../...../ip_addr"
with open(Allow_list,"r") as file:
    ip_addresses = file.read()
```

Convert the string into a list

This code will convert the string (") file to a list [,] separated with coma.

```
Allow_list = "Users/....../...../ip_addr"
with open(Allow_list,"r") as file:
    ip_addresses = file.read().split()
```

The remove list

This is the list of ip who should be removed.

```
remove_list = ["192.168.97.225", "192.168.158.170", "192.168.201.40", "192.168.58.57"]
```

Remove IP addresses that are on the remove list

Now is the iteration through the remove_list using the for loop

```
for ip in remove_list:
    if ip in ip_addresses:
        ip_addresses.remove(ip)
```

Update the file with the revised list of IP addresses

Finally print out the updated ip list and all operation was success.

```
updated_list = ip_addresses
updated_list
```

Summary

The file was sourced locally, indicated by the dots. Subsequently, the file was read using the "with open" function, converting its contents from a string to a list through the use of the split() function. Next, the remove list was iterated upon to eliminate the specified IP addresses. Finally, the updated_list was printed, marking the successful completion of the task.