Algorithm for file updates in Python

Project description

This project involves updating an allow list, which includes IP addresses that are authorized to access restricted information. Some users no longer require access, hence the purpose is to delete their IP addresses from the list automatically with Python. This keeps the system safe and lowers the possibility of illegal access.

Open the file that contains the allow list

```
with open("allow_list.txt", "r") as file:
    ip_addresses = file.read()
```

Read the file contents

```
ip_addresses = ip_addresses.strip()
```

Convert the string into a list

```
ip_addresses = ip_addresses.split("\n")
```

Iterate through the remove list

I created a list of IP addresses that should no longer have access and looped through it to compare each IP with the allow list.

Remove IP addresses that are on the remove list

```
remove_list = ["192.168.1.15", "10.0.0.23"]

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

Update the file with the revised list of IP addresses

```
with open("allow_list.txt", "w") as file:
    file.write("\n".join(ip_addresses))
```

Summary

This algorithm automatically refreshes the file after reading an allow list and eliminating IP addresses that are no longer in use. By guaranteeing that only authorized users may access restricted information, it aids in maintaining system security.