Algorithm for file updates in Python

Project description

We have to create a python algorithm to automate the process of removing IP addresses that no longer have access to the restricted content by removing them from the file containing all the allowed IP addresses. This exercise is to help learn the concept of file operations in python like opening a file, reading the content, writing or appending into the file, closing the file.

Open the file that contains the allow list

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

Read the file contents

```
ip_addresses = file.read()
```

Convert the string into a list

```
ip_addresses = ip_addresses.split()
```

Iterate through the remove list

```
for element in ip_addresses:
```

Remove IP addresses that are on the remove list

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

Update the file with the revised list of IP addresses

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

Summary

In this Python exercise, we created an algorithm to automatically remove restricted IP addresses from a file containing allowed IP addresses, ensuring that only authorized users can access restricted content. This exercise teaches fundamental file operations in Python, including reading, editing, and saving data, while enhancing access control and security.