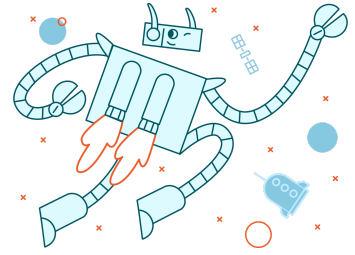# International Investigations

A high-profile digital art gallery has recently been the target of cyber-attacks. The attackers attempted to access the gallery's private digital archive, potentially to leak or ransom valuable digital art pieces. Preliminary investigations have identified that the attacks originate from France. Your task, as the cybersecurity intern, is to analyze the network logs, identify IP addresses from the suspected country, and keep them for further investigation.

Background

GeoIP (Geolocation IP) technology allows the geographical location of a person or device to be determined by their IP address. It is crucial in cybersecurity for identifying the source of cyber threats, and in various other domains for content distribution and rights management.

Task

1. Write a Python script that reads from a provided log file named `server_log.txt`. This file contains lines of text, each including one IP address alongside other information like timestamps and request details.

2. Use the following example to query geolocation information by IP address:

```python
import requests

# Function to perform GeoIP lookup using the
ipinfo.io API
def lookup_ip(ip_address):
    # Construct the API URL
    api_url = f"https://ipinfo.io/{ip_address}/json"

    # Make the API request
    response = requests.get(api_url)

    # Check if the request was successful
    if response.status_code == 200:
        # Parse the JSON response
        return response.json()

data = lookup_ip("93.184.216.34") # replace with
your IP address
print(data) # this is a dictionary containing
Geolocation information
```

3. Your task is to filter and report any IP addresses that trace back to France as these are considered suspicious in the context of your investigation.

4. A sample segment of the log file could look like this:

```
2024-03-25T12:34:56 server request from
93.184.216.34: GET /index.html
2024-03-25T12:35:02 server request from
203.0.113.195: POST /login
...
```

To submit

Submit your Python script along with a brief report identifying the IP addresses that have been flagged as originating from France.