Information Gathering: A Personal Project

This document outlines my personal project on information gathering, detailing my background, technical skills, and approach to various challenges. As a B.Tech student in Mathematics and Computing, I am eager to explore the intricacies of data collection, analysis, and application. This project serves as a platform to showcase my capabilities and passion for leveraging information in innovative ways.

By Ayush Roy

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I aim to utilize a combination of Python programming and data visualization tools to enhance the efficiency of information retrieval and presentation. Through this project, I strive to uncover insights that can be applied to real-world problems and contribute to advancements in the field. Additionally, I will be documenting my progress and findings to share with peers and professionals in the Mathematics and Computing community.

```python
import sys
import requests
import json
import socket

#Read the website URL from the command line
if len(sys.argv) != 2:
    print("Usage: python infotool.py <websiteurl>")
    sys.exit(1)

website_url = sys.argv[1]

#Getting the ip address
try:
    ip_address = socket.gethostbyname(website_url)
    print(f"IP Address: {ip_address}")
except socket.gaierror:
    print("Could not get IP address.")
    sys.exit(1)

#Fetching location information
response = requests.get(f"https://ipinfo.io/{ip_address}/json")
if response.status_code == 200:
    location_data = response.json()
    print(json.dumps(location_data, indent=4))
else:
    print("Could not fetch location information.")


# Output IP Address and Location Information
print(f"IP Address: {ip_address}")
if 'loc' in location_data:
    print(f"Location: {location_data['loc']}")
else:
    print("Location information not available.")
```

I would like to attach some of my results

1. google.com


```
Microsoft Windows [Version 10.0.26100.3194]
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C:\Users\SCP>cd C:\python Programming\Info. Gathering

C:\python Programming\Info. Gathering>python infotools.py google.com
IP Address: 142.251.42.46
{
    "ip": "142.251.42.46",
    "hostname": "bom12s20-in-f14.1e100.net",
    "city": "Mumbai",
    "region": "Maharashtra",
    "country": "IN",
    "loc": "19.0728,72.8826",
    "org": "AS15169 Google LLC",
    "postal": "400017",
    "timezone": "Asia/Kolkata",
    "readme": "https://ipinfo.io/missingauth"
}
IP Address: 142.251.42.46
Location: 19.0728,72.8826

C:\python Programming\Info. Gathering>
```

2. kaggle.com

```
Microsoft Windows [Version 10.0.26100.3194]
(c) Microsoft Corporation. All rights reserved.

C:\Users\SCP>cd C:\python Programming\Info. Gathering

C:\python Programming\Info. Gathering>python infotools.py kaggle.com
IP Address: 35.244.233.98
{
    "ip": "35.244.233.98",
    "hostname": "98.233.244.35.bc.googleusercontent.com",
    "city": "Kansas City",
    "region": "Missouri",
    "country": "US",
    "loc": "39.0997,-94.5786",
    "org": "AS396982 Google LLC",
    "postal": "64106",
    "timezone": "America/Chicago",
    "readme": "https://ipinfo.io/missingauth",
    "anycast": true
}
IP Address: 35.244.233.98
Location: 39.0997,-94.5786

C:\python Programming\Info. Gathering>
```

3. forbes.com

```
Command Prompt                          ×    +   ∨

Microsoft Windows [Version 10.0.26100.3194]
(c) Microsoft Corporation. All rights reserved.

C:\Users\SCP>cd C:\python Programming\Info. Gatherin
The system cannot find the path specified.

C:\Users\SCP>cd C:\python Programming\Info. Gathering

C:\python Programming\Info. Gathering>python infotools.py forbes.com
IP Address: 151.101.194.49
{
    "ip": "151.101.194.49",
    "city": "San Francisco",
    "region": "California",
    "country": "US",
    "loc": "37.7621,-122.3971",
    "org": "AS54113 Fastly, Inc.",
    "postal": "94107",
    "timezone": "America/Los_Angeles",
    "readme": "https://ipinfo.io/missingauth",
    "anycast": true
}
IP Address: 151.101.194.49
Location: 37.7621,-122.3971

C:\python Programming\Info. Gathering>
```

4. deepseek.com

```
Command Prompt                    ×    +    ∨

Microsoft Windows [Version 10.0.26100.3194]
(c) Microsoft Corporation. All rights reserved.

C:\Users\SCP>cd

C:\Users\SCP>cd C:\python Programming\Info. Gathering

C:\python Programming\Info. Gathering>python infotools.py deepseek.com
IP Address: 104.18.26.90
{
    "ip": "104.18.26.90",
    "city": "San Francisco",
    "region": "California",
    "country": "US",
    "loc": "37.7621,-122.3971",
    "org": "AS13335 Cloudflare, Inc.",
    "postal": "94107",
    "timezone": "America/Los_Angeles",
    "readme": "https://ipinfo.io/missingauth",
    "anycast": true
}
IP Address: 104.18.26.90
Location: 37.7621,-122.3971

C:\python Programming\Info. Gathering>
```

5. berkshirehathaway.com

```
Microsoft Windows [Version 10.0.26100.3194]
(c) Microsoft Corporation. All rights reserved.

C:\Users\SCP>cd C:\python Programming\Info. Gathering

C:\python Programming\Info. Gathering>python infotools.py berkshirehathaway.com
IP Address: 192.124.249.118
{
    "ip": "192.124.249.118",
    "hostname": "cloudproxy10118.sucuri.net",
    "city": "Tempe",
    "region": "Arizona",
    "country": "US",
    "loc": "33.3363,-111.9197",
    "org": "AS30148 Sucuri",
    "postal": "85284",
    "timezone": "America/Phoenix",
    "readme": "https://ipinfo.io/missingauth",
    "anycast": true
}
IP Address: 192.124.249.118
Location: 33.3363,-111.9197

C:\python Programming\Info. Gathering>
```