REPORT



과목: 컴퓨터 네트워크

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과제 해결 방법

```
import subprocess
import pygeoip
TR = ['traceroute', sys.argv[1]] # make traceroute command
print('[Destination] ', TR[1])
# universal_newlines=True 'out' convert byte to string
proc = subprocess.Popen(TR, stdout=subprocess.PIPE, universal_newlines=True)
out, err = proc.communicate()
p = re.compile('\([^()]*\)')
IPList = p.findall(out)
gi = pygeoip.GeoIP('GeoLiteCity.dat')
latitude = list()
longitude = []
for i in range(0,len(IPList)):
    IPList[i] = IPList[i].replace('(', '')
IPList[i] = IPList[i].replace(')', '')
     if gi.record_by_addr(IPList[i]) == None:
          print('[IP] ', IPList[i], ' No Geolocation Information')
latitude.append('No Geolocation Information')
          longitude.append('No Geolocation Information')
          latitude.append(gi.record_by_addr(IPList[i])['latitude'])
          longitude.append(gi.record by addr(IPList[i])['longitude'])
                                                                                     Lon : ', longitude[i])
          print('[IP] ', IPList[i],
                                                      Lat : ', latitude[i], '
```

- 1. sys.argv로 터미널로부터 인자 값을 받아온다.
- 2. pOpen 함수로 subprocess 생성
- 3. subprocess에서 sys.argv[1]을 인자로 traceroute 실행.
- 4. traceroute의 결과값 out 중에서 ()안의 ip주소만 가져오기 위해 정규식 사용.
- 5. record by addr함수로 위치 데이터가 나오는 경우와 안나오는 경우로 분할.
- 6. 위치 정보가 없는 경우 위도, 경도 리스트에 'NO Geolocation Information' 저장 및 출력.
- 7. 위치 정보 있는 경우 해당 리스트에 저장하고 출력.

결과화면

1. 르완다

1 – 1 Inyarwanda.com

```
oot@ubuntu:/home/jo/network# python3 sub.py Inyarwanda.com
[Destination] Inyarwanda.com
[P] 198.57.188.174 - Lat : 40.21809999999999 Lo
[Destination] Inyarw
[IP] 198.57.188.174
[IP] 192.168.0.1
[IP] 118.223.38.1
                                                                                   Lon: -111.6133
                                Lon: 126.97829999999999
                                                                    [IP]
           118.217.148.149
[IP]
[IP]
[IP]
[IP]
[IP]
           118.217.148.153
118.217.149.153
10.101.1.56 N
10.101.1.62 N
                                No Geolocation Information
No Geolocation Information
           10.101.1.34
[IP]
[IP]
[IP]
[IP]
[IP]
[IP]
[IP]
           10.101.1.46
                                No Geolocation Information
                                No Geolocation Information
No Geolocation Information
No Geolocation Information
           10.101.1.30
           10.222.10.152
10.222.14.101
118.221.7.26
                                     118.221.7.26
58.229.9.10
58.229.14.158
58.229.92.229
           129.250.205.253
                                        Lat: 37.5112 Lon: 126.97410000000000

Lat: 33.91640000000001 Lon: -118.40

Lat: 39.623700000000014 Lon: -104.87
[IP]
[IP]
[IP]
[IP]
           58.229.92.229
           129.250.193.181
129.250.2.213
129.250.2.215
                                                                                   Lon: -118.4041
Lon: -104.8738
Lon: -104.8738
                                         Lat:
                                                   39.623700000000014
           129.250.6.48
                                       Lat: 39.623700000000014
                                                                                  Lon: -104.8738
                                       Lat: 39.623700000000014

Lat: 39.623700000000014

Lat: 39.623700000000014

Lat: 39.623700000000014
[IP]
[IP]
[IP]
[IP]
                                                                                   Lon : -104.8738
Lon : -104.8738
           129.250.4.107
           129.250.3.123
129.250.6.46
                                                                                  Lon: -104.8738
Lon: -104.8738
           129.250.3.17
           129.250.2.160
                                                   39.623700000000014
                                                                                   Lon: -104.8738
[IP]
[IP]
[IP]
[IP]
                                                                                          -104.8738
           129.250.3.17
                                       Lat :
                                                 39.623700000000014
                                                                                  Lon:
           129.250.2.160
                                         Lat :
                                                   39.623700000000014
                                                                                   Lon: -104.8738
                                       Lat : 39.62370000000014
                                                                                  Lon: -104.8738
           129.250.2.16
                                            Lat: 33.9164000000001
Lat: 33.91640000000001
                                                                                    Lon : -118.4041
Lon : -118.4041
           129.250.198.182
 IP
           129.250.198.182
[IP]
           162.144.240.55
                                           Lat:
                                                    40.21809999999999
                                                                                   Lon:
                                                                                             -111.6133
           162.144.240.43
                                            Lat
                                                      40.21809999999999
                                                                                      Lon
[IP]
[IP]
[IP]
           162.144.240.51
                                                      40.21809999999999
                                                                                                -111.6133
                                            Lat:
                                                                                      Lon:
           198.57.188.174
                                                      40.21809999999999
                                                                                                -111.6133
                                            Lat:
                                                                                      Lon:
           162.144.240.43
                                                      40.21809999999999
                                                                                                -111.6133
                                            Lat
                                                                                      Lon:
                                                      40.21809999999999
           198.57.188.174
                                            Lat
                                                                                      Lon:
                                                                                                -111.6133
```

1 – 2 <u>Umuryango.rw</u>

```
root@ubuntu:/home/jo/network# python3 sub.py Umuryango.rw
[Destination] Umuryango.rw
[IP] 198.57.217.70 - Lat : 40.21809999999999 L
[IP] 192.168.0.1 No Geolocation Information
[IP] 118.223.38.1 - Lat : 37.5985 Lon : 126.9
[IP] 118.217.149.153 - Lat : 36.9871 Lon : 12
[IP] 118.217.149.149 - Lat : 36.9871 Lon : 12
                                                                                                         Lon: -111.6133
                                          118.217.149.153
118.217.149.149
10.101.0.30 M
10.101.0.34 M
10.222.15.116
10.222.14.119
  ΙP
                                          No Geolocation Information
 [IP]
                                          No Geolocation Information
No Geolocation Information
No Geolocation Information
                                             No Geolocation Information
- Lat: 35.1028 Lon: 129.0403
- Lat: 37.5112 Lon: 126.974
               10.222.10.182
118.221.7.30
58.229.92.178
 [IP]
 ĨΤΡ
  ΙP
                                                                                     Lon: 126.97410000000002
  ΙP
                10.222.14.109
                                               No Geolocation Information
 [IP]
               129.250.205.253
129.250.193.181
129.250.205.253
                                                         Lat: 39.623700000000014
Lat: 33.91640000000001
Lat: 39.623700000000014
                                                                                                             Lon: -104.8738
Lon: -118.4041
Lon: -104.8738
ΙP
                                                     Lat: 39.623700000000014
Lat: 39.623700000000014
Lat: 39.62370000000014
 [IP
[IP
[IP
               129.250.2.213
129.250.205.253
129.250.2.213
                                                                                                           Lon : -104.8738
                                                                                                             Lon : -104.8738
Lon : -104.8738
                                                                                                           Lon:
               129.250.3.17
129.250.6.46
129.250.3.238
129.250.3.123
                                                   Lat: 39.623700000000014

Lat: 39.623700000000014

Lat: 39.623700000000014

Lat: 39.623700000000014
                                                                                                                     -104.8738
-104.8738
 [IP]
 [IP]
                                                                                                          Lon:
                                                                                                                      -104.8738
-104.8738
                                                                                                           Lon:
 [IP]
[IP]
[IP]
[IP]
   ΙP
                                                                                                            Lon:
                                                                  39.623700000000014
39.623700000000014
                                                                                                                       -104.8738
-104.8738
                129.250.3.238
                                                      Lat:
                                                                                                           Lon:
               129.250.2.160
129.250.198.182
                                                     Lat:
                                                                                                           Lon:
                                                                  : 33.9164000000001
39.623700000000014
                                                         Lat:
                                                                                                             Lon : -118.4041
Lon : -104.8738
 [IP]
                129.250.2.160
                                                      Lat:
                                                                                                           Lon:
               129.250.198.182
162.144.240.165
                                                       Lat: 33.91640000000001
 ĬΙΡ
                                                                                                             Lon: -118.4041
Lon: -111.6133
                                                                     40.21809999999999
 [IP
                                                         Lat:
 [IP]
[IP]
[IP]
[IP]
                162.144.240.147
                                                                      40.21809999999999
                                                                                                                          -111.6133
               162.144.240.165
162.144.240.51
                                                       -111.6133
-111.6133
                                                                                                             Lon:
                                                                                                           Lon:
                                                       Lat:
                                                                     40.21809999999999
                                                                                                           Lon:
                198.57.217.70
                                                      Lat:
                                                                  40.21809999999999
                                                                                                                       -111.6133
                                                                                                         Lon:
```

```
oot@ubuntu:/home/jo/network# python3 sub.py Umuseke.rw
                    Umuseke.rw
[Destination]
[IP]
[IP]
         198.71.233.19
                                  Lat: 33.61189999999999
                                                                    Lon: -111.8906
         192.168.0.1
                           No Geolocation Information
[IP]
         118.223.38.1
                            - Lat: 37.5985
                                                     Lon: 126.97829999999999
[IP]
[IP]
[IP]
[IP]
                                    Lat : 36.9871
Lat : 36.9871
                                                         Lon: 126.927000000000002
Lon: 126.927000000000002
         118.217.149.149
         118.217.149.153
                           No Geolocation Information
No Geolocation Information
         10.101.0.64
         10.101.0.58
[IP]
[IP]
[IP]
                           No Geolocation Information No Geolocation Information
         10.101.0.50
         10.101.0.26
                           No Geolocation Information
         10.101.0.48
[IP]
         10.222.10.166
                              No Geolocation Information
[IP]
         10.222.10.172
                              No Geolocation Information
         175.124.172.254
                                 - Lat: 37.5985 Lon: 126.97829999999999
Lat: 37.5112 Lon: 126.974100000000002
[IP]
[IP]
         58.229.15.99
ĪΡΪ
         10.222.14.131
                             No Geolocation Information
                                 [IP]
         58.229.15.99
ĪΡĴ
                                                                   Lon: -77.3936
Lon: -77.3936
Lon: -77.3936
         64.86.123.85
[IP]
         207.45.206.10
[IP]
         64.86.123.85
[IP]
[IP]
                                  Lat: 38.92660000000001
Lat: 38.92660000000001
                                                                    Lon: -77.3936
Lon: -77.3936
         207.45.206.10
         207.45.206.10
                               Lat: 37.7758000000000004
Lat: 33.6118999999999
Lat: 33.61189999999999
[IP]
                                                                  Lon: -122.4128
         4.14.98.38
                                                                   Lon: -111.8906
ΙP
         184.168.6.83
[IP]
         184.168.6.81
                                                                   Lon:
                                                                            -111.8906
```

1 -4 Irembo.gov.rw

```
oot@ubuntu:/home/jo/network# python3 sub.py Irembo.gov.rw
Destination] Irembo.gov.rw
IP] 197.243.112.150 - Lat: -2.0 Lon: 30.0
               197.243.112.150 - Lat: -2.0 Lon: 30.0
192.168.0.1 No Geolocation Information
118.223.38.1 - Lat: 37.5985 Lon: 126.978299999999
118.217.148.153 - Lat: 36.9871 Lon: 126.92700000000002
118.217.148.149 - Lat: 36.9871 Lon: 126.92700000000002
118.217.148.153 - Lat: 36.9871 Lon: 126.927000000000002
10.101.1.94 No Geolocation Information
 [IP]
 IP
[IP]
[IP]
               10.101.1.94
10.101.1.96
10.222.15.124
10.101.1.42
10.101.1.50
10.222.10.192
175.124.53.95
10.222.10.192
 IP
IP
IP
                                           No Geolocation Information
                                           No Geolocation Information
No Geolocation Information
No Geolocation Information
 IP

IP

IP

IP

IP

IP

IP

IP

IP
                                               No Geolocation Information
- Lat: 37.5985 Lon: 126.97829999999999
                                                No Geolocation Information
                                              58.229.8.83
               10.222.14.127
58.229.14.93
80.81.193.237
               58.229.8.83
80.81.193.237
               80.81.193.237
105.16.9.21
105.16.9.21
105.16.13.145
105.16.9.21
 IP
[IP
[IP
 IP
[IP]
                105.16.8.33
               105.16.8.253
105.16.11.110
105.16.12.134
105.16.8.33
105.16.22.12
105.16.12.138
                                                                                                             Lon: 57.479700000000001
Lon: 57.47970000000001
Lon: 57.47970000000001
                                                    Lat: -20.2438999999999996
Lat: -20.243899999999996
Lat: -20.243899999999999
 IP
IP
IP
IP
                                                                                                            Lon: 57.479700000000001
Lon: 39.2833
Lon: 57.47970000000001
                                                   Lat:
                                                    Lat: -20.243899999999996
Lat: -6.800000000000011
                                                       Lat: -20.243899999999999
 [IP]
[IP]
[IP]
                                                                                                            Lon: 39.2833
Lon: 39.2833
Lon: 39.2833
                                                                 -6.800000000000011
-6.800000000000011
-6.800000000000011
                105.16.23.12
                105.16.22.12
                                                     Lat :
               105.16.23.12
197.243.126.13
                                                     Lat:
                                                                     -2.0 Lon: 30.0
                 105.21.184.18
197.243.126.30
                                                                                 -6.800000000000011
                                                                  Lat :
                                                                                                                                  Lon: 39.2833
[IP]
[IP]
                                                                   Lat :
                                                                                 -2.0
                                                                                                    Lon : 30.0
                  197.243.126.13
                                                                                  -2.0
                                                                                                                   30.0
                                                                   Lat :
                                                                                                     Lon:
[IP]
[IP]
                                                                                                     Lon: 30.0
                  197.243.126.30
                                                                   Lat:
                                                                                  -2.0
                                                                                                      Lon: 30.0
                  197.243.112.130
                                                                     Lat: -2.0
[IP
                  197.243.112.130
                                                                                   -2.0
                                                                                                      Lon:
                                                                     Lat
                                                                                                                      30.0
```

1 – 5 Mifotra.gov.rw

```
Lat: -2.0 Lon: 30.0

18.223.38.1 No Geolocation Information
18.217.148.149 - Lat: 36.9871 Lon: 126.92700000000002
118.217.148.153 - Lat: 36.9871 Lon: 126.927000000000002
118.217.148.149 - Lat: 36.9871 Lon: 126.927000000000002
118.217.148.149 - Lat: 36.9871 Lon: 126.9270000000000002
10.101.0.94 No Geolocation Information
10.101.0.96 No Geolocation Information
10.222.15.108 No Geolocation Information
10.222.15.134 No Geolocation Information
root@ubuntu:/home/jo/network# python3 sub.py Mifotra.gov.rw
[Destination] Mifotra.gov.rw
[IP] 197.243.16.110 - Lat: -2.0 Lon: 30.0
[IP] 192.168.0.1 No Geolocation Information
[IP]
                                                             175.124.53.99
175.124.53.101
175.124.54.81
118.221.7.121
58.229.15.99
[IP]
[IP]
[IP]
[IP
[IP
                 58.229.15.99

58.229.15.99

64.86.123.85

64.86.123.93

207.45.206.1

207.45.206.1

80.231.217.88
[IP]
[IP
[IP
[IP]
[IP]
[IP]
[IP]
[IP]
                                                           - Lat: 47.0 Lon: 8.0
Lat: 38.926600000000001 L
Lat: 47.0 Lon: 8.0
                 64.86.79.2
80.231.217.2
                                                                                                                             Lon : -77.3936
                                                           Lat: 38.92660000000001
Lat: 38.92660000000001
                                                                                                                             Lon: -77.3936
Lon: -77.3936
[IP]
                  64.86.79.2
                                                              216.6.81.28
80.231.131.118
[IP
[IP
                                                                                                                               Lon : -0.093099999999999263
Lon : -77.3936
Lon : -0.09309999999999263
[IP
[IP
                 80.231.62.26
63.243.216.23
[IP]
[IP]
[IP]
                  80.231.62.26
                 80.231.76.126
80.231.62.30
                                                                                                                                 Lon: -0.09309999999999263
                 197.243.126.13
80.231.76.126
[IP
[IP]
[IP]
                                                                                                        Lat: -2.0
                           197.243.126.30
                                                                                                                                                             Lon: 30.0
                           197.243.126.13
                                                                                                        Lat: -2.0
                                                                                                                                                             Lon:
                                                                                                                                                                                     30.0
[IP]
                                                                                                                                                                                     30.0
                           197.243.126.30
                                                                                                        Lat: -2.0
                                                                                                                                                             Lon:
```

2. China

2 -1 Baidu.com

```
oot@ubuntu:/home/jo/network# python3 sub.py Baidu.com
[Destination] Baidu.c
[IP] 123.125.115.110
                     Baidu.com
[IP]
[IP]
[IP]
[IP]
[IP]
                              0 - Lat: 39.9289 Lon: 116.38830000000
No Geolocation Information
- Lat: 37.5985 Lon: 126.9782999999999
                                                                 Lon: 116.38830000000002
          192.168.0.1
          118.223.38.1
                                        Lat: 36.9871
Lat: 36.9871
Lat: 36.9871
                                                                Lon: 126.92700000000002
Lon: 126.92700000000002
          118.217.148.153
          118.217.149.153
[IP]
          118.217.148.153
10.101.0.54
                                                                Lon: 126.927000000000002
[IP]
[IP]
                              No Geolocation Information
          10.101.0.60
                              No Geolocation Information
[IP]
          10.101.0.42
                              No Geolocation Information
[IP]
          10.101.0.50
                              No Geolocation Information
[IP]
          10.222.15.126
                                No Geolocation Information
[IP]
          10.222.10.166
                                 No Geolocation Information
[IP]
[IP]
          10.222.14.111
                                No Geolocation Information
                                   Lat : 37.5112 Lon : 126.97410000000002
[IP]
[IP]
                                No Geolocation Information
          10.222.14.123
          118.221.7.42
                                    Lat: 35.1028 Lon: 129.0403
[IP]
[IP]
[IP]
                                No Geolocation Information
- Lat: 37.5985 Lon: 120
- Lat: 34.77250000000001
          10.222.14.123
39.115.132.49
                                                                       126.97829999999999
          219.158.113.118
                                                                             Lon: 113.72660000000002
[IP]
          219.158.6.197
                                      Lat :
                                               34.77250000000001
                                                                            Lon: 113.72660000000002
                                                                            Lon: 113.72660000000002
Lon: 113.72660000000002
                                       Lat: 34.77250000000001
[IP]
          219.158.113.101
                                      Lat: 34.77250000000001

Lat: 39.9289 Lon:

Lat: 34.772500000000001

Lat: 39.9289 Lon:
[IP]
          219.158.6.197
          124.65.194.178
[IP]
                                                                         116.38830000000002
ΙP
          219.158.6.197
                                                               000001 Lon: 113.72660000000002
Lon: 116.38830000000002
[IP]
          124.65.194.178
                                                               Lon: 116.38830000000002
Lon: 116.38830000000002
Lon: 116.38830000000002
Lon: 116.38830000000002
[IP]
[IP]
                                       Lat: 39.9289
Lat: 39.9289
Lat: 39.9289
          123.125.248.98
          61.148.146.170
[IP]
          61.148.142.142
ΪΙΡΊ
                                        Lat: 39.9289
          123.125.248.126
```

```
oot@ubuntu:/home/jo/network# python3 sub.py Qq.com
Destination] Qq.com
[IP]
        111.161.64.48
                              Lat : 39.1422
                                                   Lon: 117.17669999999999
                        No Geolocation Information
- Lat: 37.5985 Lon: 126.9782999999999
        192.168.0.1
IP]
[IP]
[IP]
[IP]
        118.223.38.1
                             - Lat: 36.9871
- Lat: 36.9871
                                                    Lon: 126.92700000000002
Lon: 126.92700000000002
        118.217.148.153
        118.217.148.149
10.101.0.56
                         No Geolocation Information
ΙP
        10.101.0.62
                         No Geolocation Information
IP]
        10.222.15.136
                           No Geolocation Information
ΙP
        10.222.15.106
                           No Geolocation Information
ΙP
        10.222.15.136
                           No Geolocation Information
IP]
                          No Geolocation Information
No Geolocation Information
        10.222.10.160
        10.222.10.194
[IP]
[IP]
[IP]
[IP]
                               Lat: 37.5985
                                                  Lon: 126.97829999999999
        175.124.53.24
                          No Geolocation Information
        10.222.14.121
                               118.221.7.54
                              Lat : 35.1028
        39.115.132.57
        219.158.38.89
                                                              Lon: 113.726600000000002
                                                                Lat : 34.772500000000001
Lat : 34.77250000000001
Lat : 34.77250000000001
IP]
        219.158.113.134
IP]
        219.158.113.134
                                        34.77250000000001
34.77250000000001
ΙP
        219.158.113.105
        219.158.113.50
                                Lat:
```

2 - 3 Tmall.com

```
root@ubuntu:/home/jo/network# python3 sub.py Tmall.com
[Destination] Tmall.com
root@ubuntu./none,,,,,,
[Destination] Tmall.
[IP] 140.205.130.99
[IP] 192.168.0.1
[IP] 118.223.38.1
[IP]
[IP]
                                                    Lat: 30.293599999999998
                                                                                                       Lon: 120.16140000000001
                                       118.217.148.153
118.217.149.153
10.101.0.64
                                        No Geolocation Information
              10.101.0.58
10.101.0.50
10.101.0.30
10.222.15.106
118.221.7.34
10.222.10.146
                                           No Geolocation Information
- Lat: 35.1028 Lon:
                                                                                             129.0403
                                           10.222.10.192
1.255.74.242
39.115.132.51
10.222.14.119
39.115.132.51
                                                                                   Lon: 126.97829999999999
                                            No Geolocation Information
- Lat: 37.5985 Lon: 12
- Lat: 34.77250000000001
- Lat: 34.77250000000001
- Lat: 34.77250000000001
- Lat: 34.77250000000001
                                                                                                126.97829999999999
              219.158.113.126
219.158.113.126
                                                                                                        Lon: 113.726600000000002
Lon: 113.726600000000000
                                                                                                                     113.726600000000002
              219.158.113.105
219.158.113.105
                                                                                                         Lon:
                                                                                                                      113.726600000000002
                                                                                                         Lon:
              140.205.50.242
42.120.243.109
                                                    Lat :
Lat :
                                                                                                                     120.16140000000001
120.161400000000001
                                                                 30.293599999999998
                                                                                                         Lon:
                                                                                                         Lon:
                                                                 30.29359999999998
```

2 - 4 Taobao.com

```
root@ubuntu:/home/jo/network# python3 sub.py Sohu.com
[Destination] Sohu.com
rootgubuncu.,
[Destination] Sohu.0
[IP] 123.125.116.28
[IP] 192.168.0.1
                                                                                                    Lon: 116.38830000000002
                                              No Geolocation Information
- Lat: 37.5985 Lon: 126.9782999999999
9 - Lat: 36.9871 Lon: 126.927000000000002
3 - Lat: 36.9871 Lon: 126.927000000000002
No Geolocation Information
[IP]
[IP]
[IP]
[IP]
[IP]
[IP]
                118.223.38.1
                118.217.149.149
118.217.148.153
                 10.101.1.64
                                               No Geolocation Information
No Geolocation Information
No Geolocation Information
                10.101.1.58
                10.101.1.46
10.101.1.26
[IP]
[IP]
[IP]
[IP]
                10.101.1.52
                                               No Geolocation Information
                                                   No Geolocation Information
                10.222.10.180
                                                      lo Geolocation Information
Lat: 37.5112 Lon: 126.
Lat: 37.5112 Lon: 12
Lat: 37.5112 Lon: 12
Lat: 37.5985 Lon: 12
Lat: 34.77250000000001
- Lat: 34.77250000000001
- Lat: 34.772500000000001
                                                                                         Lon: 126.97410000000002

2 Lon: 126.97410000000002

2 Lon: 126.97410000000002

5 Lon: 126.9782999999999
                1.255.26.90
58.229.14.137
[IP]
[IP]
[IP]
                 58.229.14.137
                39.115.132.55
219.158.113.122
219.158.113.122
                                                                                                                     219.158.113.101
219.158.113.122
219.158.113.101
219.158.6.161
[IP]
[IP]
[IP]
[IP]
[IP]
[IP]
                                                           Lat: 34.772500000000001

Lat: 34.772500000000001

Lat: 34.77250000000001

Lat: 34.77250000000001
               219.158.6.161
219.158.6.161
219.158.6.161
202.96.12.118
219.158.6.161
202.96.12.118
61.148.142.142
                                                                          34.77250000000001 Lon: 113.72666
39.9289 Lon: 116.38830000000002
34.77250000000001 Lon: 113.72666
                                                            Lat:
                                                                                                                      Lon : 113.72660000000002
                                                            Lat:
[IP]
[IP]
[IP]
[IP]
                                                                           39.9289
                                                                                                                116.38830000000002
                                                                                                                  116.38830000000002
                                                             Lat:
                                                                            39.9289
                                                                                                    Lon:
                202.96.12.118
124.65.58.194
                                                           Lat:
                                                                           39.9289
                                                                                                                116.38830000000002
                                                                                                  Lon:
                                                                                                                116.38830000000002
116.38830000000002
                                                                           39.9289
39.9289
                                                            Lat:
                                                                                                  Lon:
  ΙP
                 61.51.113.246
                                                                                                  Lon
ĨΙΡ
                202.106.48.10
                                                            Lat
                                                                           39.9289
                                                                                                                 116.38830000000002
```

3. Japan

3 -1 Rakuten.co.jp

```
root@ubuntu:/home/jo/network# python3 sub.py Rakuten.co.jp
[Destination] Rakuten.co.jp
[IP]
         133.237.61.176
                               - Lat: 35.69
                                                        Lon: 139.69
[IP]
[IP]
[IP]
[IP]
                         No Geolocation Information
         192.168.0.1
                             118.223.38.1
                           9 - Lat : 36.9871 | 1
3 - Lat : 36.9871 | 1
9 - Lat : 36.9871 | 1
No Geolocation Information
         118.217.148.149
         118.217.149.153
118.217.149.149
[IP]
[IP]
[IP]
[IP]
         10.101.1.96
         10.101.1.94
                            No Geolocation Information
                            No Geolocation Information
         10.101.1.32
IP]
         10.222.15.132
                             No Geolocation Information
[IP]
[IP]
[IP]
[IP]
         10.101.1.36
                            No Geolocation Information
         118.221.7.58
                                Lat: 35.1028 Lon: 129.0403
         10.222.10.180
                              No Geolocation Information
- Lat: 37.5985 Lor
         211.178.182.207
                                                          Lon: 126.97829999999999
[IP]
                              No Geolocation Information
         10.222.14.119
[IP
[IP
         10.222.6.43
                            No Geolocation Information
         211.178.182.207 - Lat: 37.5985 L
10.222.6.43 No Geolocation Information
                                                           Lon: 126.97829999999999
[IP]
         10.222.6.43
                              - Lat: 37.5112
         58.229.92.134
                                                         Lon: 126.97410000000002
         10.222.6.7 No Geolocation Information
58.229.92.134 - Lat: 37.5112 Lo
[IP]
[IP]
[IP]
                              - Lat: 37.5112 Lon: 1
- Lat: 39.623700000000014
- Lat: 39.6237000000000014
- Lat: 35.685 Lon: 13
                                                         Lon: 126.97410000000002
         129.250.7.30
                                                                    Lon : -104.8738
[IP]
         129.250.8.153
                                                                       Lon: -104.8738
                                                       Lon: 139.7514
Lon: 139.7514
         27.85.128.173
[IP]
[IP]
                                  Lat: 35.685 Lon: 139.6237000000000014
Lat: 39.623700000000014
         27.85.136.77
         129.250.3.28
                                                                      Lon: -104.8738
         129.250.7.78
                                                                       Lon:
                                                                               -104.8738
                                                       Lon: 139.7514
Lon: 139.7514
Lon: 139.7514
                                  Lat: 35.685
Lat: 35.685
IP
IP
         27.85.227.110
         27.85.128.34
                                   Lat: 35.685
         106.185.22.34
```

3 - 2 Nicovideo.jp

```
oot@ubuntu:/home/jo/network# python3 sub.py Nicovideo.jp
[Destination] Nicovideo.jp
[Destination] Nicovid
[IP] 202.248.110.184
                                                                         Lat:
                                                                                          34.68530000000001
                                                                                                                                            Lon: 135.832800000000002
                                                     4 - Lat: 34.68530000000001 Lon: 135.83
No Geolocation Information
- Lat: 37.5985 Lon: 126.9782999999999
3 - Lat: 36.9871 Lon: 126.927000000000
9 - Lat: 36.9871 Lon: 126.9270000000000
No Geolocation Information
                  192.168.0.1
118.223.38.1
Lon: 126.92700000000002
Lon: 126.927000000000002
                  118.217.149.149
10.101.0.94
10.101.0.96
                  10.101.0.28
10.101.0.32
10.222.10.144
                                                   No Geolocation Information
No Geolocation Information
No Geolocation Information
- Lat: 37.5112 Lon: 126.97410000000002
No Geolocation Information
- Lat: 37.5112 Lon: 126.97410000000002
2 - Lat: 37.5112 Lon: 126.97410000000000
                  10.222.10.192
1.255.26.250
10.222.6.7
                   1.255.26.250
                                                                                                               Lon : 126.97410000000002
                  118.217.96.222
10.222.6.49
[IP]
[IP]
                                                      No Geolocation Information
                                                                  Lat: 39.623700000000014
Lat: 39.62370000000014
Lat: 39.623700000000014
                  129.250.8.153
129.250.8.21
                                                                                                                                          Lon:
                                                                                                                                                           -104.8738
                                                                                                                                      Lon: -104.8738
Lon: -104.8738
Lon: -104.8738
[IP]
[IP]
                   129.250.3.210
                                                                 Lat: 39.6237000000000014

Lat: 39.6237000000000014

Lat: 39.6237000000000014

- Lat: 35.685 Lon:

- Lat: 35.685 Lon:
                  129.250.3.22
129.250.3.106
117.103.176.106
                                                                                                                                         Lon :
                                                                                                                                                          -104.8738
                                                                                                              Lon : 139.7514
Lon : 139.7514
[IP]
[IP]
                                                                                                            Lon: 139.7514
Lon: 139.7514
Lon: 139.7514
Lon: 139.69
Lon: 139.69
                   117.103.176.102
120.88.53.158
                                                                    Lat:
                                                                                     35.685
[IP
[IP
                   133.160.139.18
133.160.183.33
133.160.139.18
                                                                       Lat :
Lat :
Lat :
                                                                                      35.69
35.69
                                                                                                                             139.69
139.69
                                                                                         35.69
                                                                                                              Lon:
                   133.160.139.18
                                                                                         35.69
                                                                                                                               139.69
```

3 - 3 Fc2.com

```
root@ubuntu:/home/jo/network# python3 sub.py Fc2.com
[Destination] Fc2.com
[IP]
        52.33.182.156
                                Lat: 45.86959999999999
                                                               Lon: -119.688
[IP]
[IP]
                         No Geolocation Information
        192.168.0.1
                        118.223.38.1
                                                   Lon: 126.927000000000002
Lon: 126.92700000000002
[IP]
        118.217.148.153
[IP]
        118.217.148.149
ΪΙΡΊ
        10.101.1.56
[IP]
        10.101.1.62
                         No Geolocation Information
[IP]
        10.101.1.32
                         No Geolocation Information
[IP]
        10.101.1.44
                         No Geolocation Information
[IP]
        10.222.15.110
                           No Geolocation Information
[IP]
        10.222.14.99
                          No Geolocation Information
[IP]
                           No Geolocation Information No Geolocation Information
        10.222.10.150
[IP]
        10.222.10.192
[IP]
                              - Lat: 37.5985 Lon: 126.97829999999999
        211.178.182.209
[IP]
                           No Geolocation Information
        10.222.14.127
                                                   Lon: 126.97410000000002
Lon: 126.97410000000002
[IP]
        58.229.92.22
                              Lat : 37.5112
                              Lat: 37.5112
Lat: 37.5112
Lat: 29.7431
[IP]
        58.229.92.254
[IP]
        58.229.92.22
                                                   Lon: 126.97410000000002
[IP]
                                                   Lon: -95.4446
        198.32.176.36
[IP]
        58.229.92.22
                               Lat: 37.5112
                                                   Lon: 126.97410000000002
                               Lat : 29.7431
Lat : 29.7431
                                                    Lon: -95.4446
Lon: -95.4446
[IP]
        198.32.176.36
[IP]
        198.32.176.36
ΪΙΡΊ
        54.240.243.28
                               Lat: 47.610299999999995
Lat: 47.610299999999995
                                                               Lon: -122.3341
Lon: -122.3341
Lon: -122.3341
[IP]
        54.240.243.61
[IP]
        54.240.243.148
                                Lat: 47.610299999999999
IP]
        54.240.243.8
                              Lat: 47.610299999999995
                                                               Lon: -122.3341
[IP]
                                                                Lon: -122.3341
Lon: -119.688
                               Lat: 47.610299999999999
        54.240.243.101
                                 Lat: 45.86959999999999
[IP]
        205.251.232.118
[IP]
        54.239.43.51
                              Lat : 47.6344
                                                  Lon: -122.34219999999999
                                                Lat: 47.6344
Lat: 47.6344
Lat: 47.6344
[IP]
        52.93.12.40
[IP]
        52.93.12.39
        52.93.12.76
                              Lat: 47.6344
[IP]
        52.93.13.40
                                                   -122.34219999999999
                          Lat : 47.6344
                                            Lon:
[IP]
[IP]
[IP]
                                             Lat: 47.6344
        52.93.12.218
        52.93.12.74
                          Lat: 47.6344
                           Lat : 47.6344
Lat : 47.6344
                                              Lon: -122.342199999999999
Lon: -122.34219999999999
        52.93.12.108
[IP]
        52.93.12.178
[IP]
[IP]
                            Lat: 47.6344
Lat: 47.6344
Lat: 47.6344
        52.93.12.207
                                                    -122.34219999999999
        52.93.240.19
                                              Lon:
                                                    -122.34219999999999
[IP]
[IP]
[IP]
[IP]
        52.93.12.111
                                              Lon:
                                                    -122.34219999999999
                                             Lat: 47.6344
Lat: 47.6344
        52.93.13.17
        52.93.240.37
                              Lat: 45.86959999999999
                                                          Lon: -119.688
        205.251.232.165
                                            Lon: -122.34219999999999
                           Lat: 47.6344
[IP
        52.93.12.93
                             Lat : 45.86959999999999
        52.33.182.156
                                                         Lon: -119.688
```

3 - 4 Ameblo.jp

```
oot@ubuntu:/home/jo/network# python3 sub.py Ameblo.jp
 [Destination] Ameb
[IP] 104.76.76.22
                                 Ameblo.jp
                                             - Lat: 42.362599999999986    Lon: -71.0843

No Geolocation Information
    - Lat: 37.5985    Lon: 126.9782999999999

3    - Lat: 36.9871    Lon: 126.92700000000002

No Geolocation Information
[IP]
[IP]
[IP]
[IP]
                192.168.0.1
               118.223.38.1
               118.217.148.153
               118.217.149.149
10.101.1.62
10.101.1.56
[IP]
                                             No Geolocation Information
[IP]
[IP]
[IP]
[IP]
[IP]
[IP]
                10.101.1.50
               10.101.1.30 F
10.101.1.44 M
10.222.15.132
10.222.10.152
10.222.10.198
211.178.182.178
                                                         Lat: 37.5985
Lat: 37.5112
Lat: 37.5112
Lat: 37.5112
                                                                                                               126.97829999999999
                                                                                                 Lon:
                                                                                             58.229.12.170
218.145.32.57
112.174.63.58
112.174.63.206
[IP]
[IP]
[IP]
[IP]
[IP]
[IP]
[IP]
                                                           Lat: 37.5112
Lat: 37.5112
Lat: 37.5112
               112.174.110.22
112.189.24.138
                                                            Lat : 37.5112
Lat : 37.5112
                112.188.243.138
[IP]
[IP]
[IP]
                112.188.243.142
                                                                                                  Lon:
                                                                                                                126.97410000000002
                211.216.3.134
                                                         Lat:
                                                                       37.65639999999999
                                                                                                                  Lon: 126.8349999999998
               211.216.3.130
                                                          Lat:
                                                                        37.65639999999999
                                                                                                                  Lon:
                                                                                                                                126.83499999999998
```

3 - 5 Livedoor.jp

```
oot@ubuntu:/home/jo/network# python3 sub.py Livedoor.jp
Destination] Livedoor.jp
[Destination]
[IP]
[IP]
            203.104.153.16
                                               Lat: 35.685
                                                                          Lon: 139.7514
            192.168.0.1 N
118.223.38.1
118.217.148.153
                                    No Geolocation Information
- Lat: 37.5985 Lon: 126.9782999999999
- Lat: 36.9871 Lon: 126.927000000000002
[IP]
[IP]
[IP]
[IP]
[IP]
            10.101.1.96
10.101.1.94
10.101.1.96
                                    No Geolocation Information
                                    No Geolocation Information
No Geolocation Information
No Geolocation Information
No Geolocation Information
           10.101.1.96
10.222.15.112
10.222.15.122
10.222.15.110
10.222.10.160
118.221.7.50
10.222.14.123
10.222.6.43
58.229.92.134
27.85.128.165
[IP]
                                        No Geolocation Information
ΙP
                                       No Geolocation Information
IP]
                                            Lat: 35.1028 Lon:
                                                                                     129.0403
[IP]
                                       No Geolocation Information
[IP]
[IP]
                                    No Geolocation Information
                                             Lat : 37.5112
Lat : 37.5112
                                                                          Lon: 126.97410000000002
Lon: 126.97410000000002
[IP]
[IP]
[IP]
                                                                         Lon: 126.974100000000002

Lon: 126.974100000000002

Lon: 139.7514

Lon: 139.7514
           27.85.128.165
58.229.92.134
27.85.136.117
27.85.227.126
                                                        35.685
                                              Lat:
                                              Lat :
                                                        37.5112
35.685
[IP]
                                              Lat:
                                                        35.685
                                              Lat:
            27.85.136.77
129.250.3.33
                                                       35.685
IP]
                                            Lat :
                                                                       Lon:
IP]
                                            Lat:
                                                       39.623700000000014
                                                                                                      -104.8738
                                                                         Lon: 139.7514
Lon: 139.7514
IP]
            27.85.227.238
                                              Lat:
                                                         35.685
IP]
            27.85.227.126
                                              Lat:
                                                         35.685
[IP]
            129.250.6.189
                                              Lat:
                                                         39.623700000000014 Lon: -104.8738
                                                                                   139.7514
139.7514
           27.85.227.238
27.85.227.242
[IP]
                                              Lat:
                                                         35.685
                                                                         Lon:
[IP]
[IP]
                                              Lat:
                                                         35.685
                                                                         Lon:
           61.213.169.242
111.87.9.238
125.29.22.174
111.87.9.238
                                              Lat :
                                                                                    139.69
                                                          35.69
                                                                         Lon:
                                                                                    139.64249999999998
139.7514
ΙP
                                            Lat: 35.4478
                                                                         Lon:
 ΙP
                                             Lat:
                                                         35.685
                                                                         Lon:
                                            Lat:
                                                       35.4478
                                                                          Lon
                                                                                     139.64249999999998
```

4. Taiwan

4 - 1 Ebc.net.tw

```
Destination]
                 122.147.226.250
192.168.0.1
118.223.38.1
                                                                                     25.047799999999995
                                                                                                                                       Lon: 121.53179999999998
 IP.
                                                   No Geolocation Information
- Lat: 37.5985 Lon
                                                  - Lat: 37.5985 Lon: 126.97829999999999
3 - Lat: 36.9871 Lon: 126.927000000000002
3 - Lat: 36.9871 Lon: 126.927000000000002
No Geolocation Information
- Lat: 35.1028 Lon: 129.0403
No Geolocation Information
- Lat: 37.5985 Lon: 126.9782999999999
No Geolocation Information
No Geolocation Information
- Lat: 39.6237000000000014 Lon: -104.8738
No Geolocation Information
- Lat: 39.623700000000014 Lon: -104.8738
- Lat: 39.6237000000000014 Lon: -104.8738
- Lat: 39.6237000000000014 Lon: -104.8738
- Lat: 39.6237000000000014 Lon: -104.8738
                                                                                                      Lon : 126.97829999999999
                 118.217.149.153
118.217.148.153
 IP.
                 10.101.1.60
10.101.1.54
10.101.1.48
10.222.15.130
10.222.15.118
[IP]
[IP
[IP
  IP:
                  10.222.10.188
                 10.222.10.188
118.221.7.26
10.222.14.107
175.124.54.87
10.222.14.107
10.222.6.11
 IP
IP
 IP
IP
 ΙP
                  129.250.8.21
 IP
                 10.222.6.11
129.250.8.177
                 129.250.8.177
129.250.7.32
129.250.2.155
129.250.4.182
129.250.7.32
129.250.7.31
129.250.7.41
129.250.4.182
 IP.
                                                             Lat :
Lat :
                                                                             39.623700000000014
39.623700000000014
                                                                                                                                  Lon : -104.8738
Lon : -104.8738
 ΙP
                                                                                                                                Lon:
 IP
IP
                                                             Lat :
Lat :
                                                                              39.623700000000014
39.623700000000014
                                                                                                                                Lon :
                                                                                                                                              -104.8738
-104.8738
                                                                              39.623700000000014
39.623700000000014
 ΙP
                                                                                                                                   Lon: -104.8738
                                                             Lat :
                                                                                                                                                 -104.8738
 IP.
                                                                                                                                 Lon:
                                                                               25.047799999999995
                                                                                                                                                 121.53179999999998
                                                                  at: 25.04779999999995
Lat: 25.04779999999995
Lat: 25.0477999999995
Lat: 25.04779999999995
Lat: 25.04779999999995
Lat: 25.04779999999995
                 129.250.2.83
192.72.155.205
 TΡ
                                                               Lat:
                                                                                                                                 Lon:
                                                                                                                                                 -104.8738
                                                                                                                                    Lon :
                                                                                                                                                    121.53179999999998
                 139.175.58.201
139.175.58.201
139.175.58.146
139.175.57.218
 IP
IP
                                                                                                                                                    121.53179999999998
121.5317999999998
                                                                                                                                      Lon:
                                                                                                                                                     121.53179999999998
121.53179999999998
 ΙP
                                                                                                                                      Lon
                                                                                    25.04779999999999
                                                                                                                                                      121.53179999999998
                 139.175.57.218
139.175.58.146
139.175.56.142
220.228.20.146
192.72.107.130
                                                                                    25.047799999999995
25.047799999999995
                                                                                                                                                        121.53179999999998
121.5317999999998
[IP]
[IP]
[IP]
[IP]
                                                                    Lat
                                                                                                                                        Lon:
                                                                    Lat
                                                                                     25.04779999999999
                                                                                                                                        Lon
                                                                                                                                                        121.53179999999998
                                                                    Lat
                                                                                     25.047799999999995
25.047799999999995
                                                                                                                                        Lon
                                                                                                                                                        121.53179999999998
121.5317999999998
                                                                    Lat
                                                                                                                                        Lon
 ΙP
                  192.72.107.186
                                                                                     25.047799999999995
                                                                                                                                                        121.53179999999998
                                                                                     25.047799999999995
ГΙР
                  220.228.20.146
                                                                    Lat
                                                                                                                                        Lon
                                                                                                                                                        121.53179999999998
```

4 – 2 <u>Ltn.com.tw</u>

```
root@ubuntu:/home/jo/network# python3 sub.py Ltn.com.tw [Destination] Ltn.com.tw [IP] 218.211.33.75 - Lat: 25.04779999999995 [IP] 192.168.0.1 No Geolocation Information [IP] 118.223.38.1 - Lat: 37.5985 lon: 126 [IP] 118.217.149.149
                                                                                          Lon: 121.53179999999998
                                   118.217.149.149
118.217.148.153
                                                                         Lon: 126.92700000000002
Lon: 126.92700000000002
  [IP]
             118.217.148.149
10.101.0.60
10.101.0.54
10.101.0.32
 [IP]
                                                                                       126.927000000000002
                                   No Geolocation Information
No Geolocation Information
No Geolocation Information
 [IP]
[IP]
  ΙP
             10.222.15.126
10.101.0.36
1.255.26.90
 [IP]
[IP]
                                       No Geolocation Information
                                    No Geolocation Information - Lat: 37.5112 Lon:
 [IP]
                                                                                126.974100000000002
             10.222.10.198
1.255.26.246
  ΙP
                                       No Geolocation Information
                                  No Geolocation Information
- Lat : 37.5112 Lon :
No Geolocation Information
No Geolocation Information
- Lat : 37.5112 Lon :
 [IP
                                                                                  126.97410000000002
 [IP]
[IP]
             10.222.6.7
10.222.6.49
             1.255.26.246
                                                                                 126.974100000000002
  IP]
             10.222.6.41
                                    No Geolocation Information
             129.250.8.177
10.222.6.41
129.250.7.32
129.250.8.21
 [IP]
[IP]
                                            Lat: 39.623700000000014
                                                                                          Lon: -104.8738
                                    No Geolocation Information
- Lat: 39.623700000000014
- Lat: 39.623700000000014
                                                                                                   -104.8738
                                                                                         Lon:
 [IP]
[IP]
[IP]
[IP]
                                                                                                   -104.8738
                                                                                         Lon:
                                            Lat: 39.623700000000014
Lat: 39.623700000000014
                                                                                          Lon: -104.8738
Lon: -104.8738
             129.250.2.155
             129.250.4.182
129.250.7.15
129.250.2.155
                                                                                                   -104.8738
                                           Lat: 39.623700000000014
                                                                                         Lon:
  IP]
                                             Lat: 39.623700000000014
                                                                                          Lon: -104.8738
                                                                                                   -104.8738
-104.8738
-104.8738
                                                      39.623700000000014
 [IP
              129.250.7.15
                                                                                         Lon:
             129.250.7.41
129.250.7.41
                                                      39.623700000000014
39.623700000000014
 [IP]
                                            Lat:
                                                                                         Lon:
 ΙP
                                            Lat:
                                                                                         Lon:
[IP]
             61.58.33.54
                                                     25.047799999999995
                                                                                                  121.53179999999998
                                          Lat:
                                                                                       Lon:
             192.72.155.205
192.72.155.205
192.72.155.205
139.175.57.218
139.175.58.201
[IP]
[IP]
[IP]
                                                                                                      121.53179999999998
121.5317999999998
121.53179999999998
                                              Lat :
Lat :
                                                         25.047799999999995
                                                                                           Lon
                                                         25.047799999999995
25.047799999999995
                                                                                           Lon:
                                               Lat
                                                                                           Lon
                                               Lat
                                                          25.047799999999995
                                                                                            Lon:
                                                                                                      121.53179999999998
 [IP]
[IP]
[IP]
[IP]
[IP]
                                                          25.047799999999995
25.047799999999995
             192.72.107.190
                                               Lat
                                                                                             Lon
                                                                                                        121.53179999999998
             139.175.56.142
                                               Lat:
                                                                                             Lon:
                                                                                                        121.53179999999998
             192.72.107.186
192.72.107.190
                                               Lat:
                                                          25.047799999999995
                                                                                             Lon:
                                                                                                        121.53179999999998
                                                          25.047799999999995
                                                                                                       121.53179999999998
                                               Lat:
                                                                                             Lon:
             220.228.20.146
                                                          25.047799999999995
                                                                                                        121.53179999999998
                                                                                             Lon:
             218.211.33.75
220.228.20.154
 [IP
                                                        25.047799999999995
                                                                                           Lon:
                                                                                                     121.53179999999998
 [IP
                                               Lat:
                                                         25.047799999999995
                                                                                                      121.53179999999998
 ĪΙΡ
             218.211.33.75
                                             Lat:
                                                        25.047799999999995
                                                                                           Lon:
                                                                                                      121.53179999999998
```

```
oot@ubuntu:/home/jo/network# python3 sub.py Momoshop.com.tw
  Destination]
                                              Momoshop.com.tw
                                                             hop.com.tw
- Lat: 25.047799999999995 Lon: 121.5317
- No Geolocation Information
- Lat: 37.5985 Lon: 126.9782999999999
9 - Lat: 36.9871 Lon: 126.927000000000002
3 - Lat: 36.9871 Lon: 126.927000000000002
No Geolocation Information
No Geolocation Information
No Geolocation Information
 [IP]
[IP]
                    175.99.128.188
192.168.0.1
                                                                                                                                                               Lon: 121.53179999999998
                     192.168.0.1
118.223.38.1
118.217.149.149
[IP]
118.217.148.153
                     10.101.0.60
10.101.0.34
                                                             No Geolocation Information
No Geolocation Information
No Geolocation Information
No Geolocation Information
                     10.222.15.106
10.101.0.36
                      10.222.10.150
10.222.10.170
10.222.14.99
                                                                 No Geolocation Information
- Lat: 37.5985 Lon: 126.9782999999999
Lat: 37.5112 Lon: 126.974100000000002
                     39.115.132.49
58.229.9.2
10.222.6.92
63.216.140.25
                                                             - Lat: 37.5112 Lon: 126
No Geolocation Information
- Lat: 38.98410000000001
- Lat: 37.5985 Lon:
- Lat: 37.5985 Lon:
- Lat: 38.98410000000001
- Lat: 38.98410000000001
- Lat: 38.984100000000001
- Lat: 38.984100000000001
- Lat: 38.984100000000001
- Lat: 38.9841000000000001
                                                                                                                                                            Lon:
                                                                                                                                                                                -77.3827
[IP]
                      39.115.132.49
                                                                                                                                                    126.97829999999999
126.9782999999999
                      39.115.132.55
                                                                                                                                                     126.9782999999999

Lon : -77.3827

Lon : 121.5317999999998

Lon : -77.3827

Lon : 121.53179999999998
[IP]
[IP]
[IP]
[IP]
[IP]
[IP]
[IP]
                     63.216.140.25
                     63.222.40.202
63.223.9.94
                                                                         Lat: 38.98410000000001
Lat: 38.98410000000001
Lat: 38.98410000000001
                     63.222.40.6
63.223.9.118
60.199.16.202
                                                                              Lat :
                                                                                                 25.047799999999995
38.984100000000001
                      63.222.40.210
                                                                                                   25.047799999999995
```

4 - 4 Tvbs.com.tw

```
root@ubuntu:/home/jo/network# python3 sub.py Tvbs.com.tw
[Destination] Tvbs.com.tw
[IP] 54.230.181.179 - Lat : 47.542 Lon : -12
[IP] 192.168.0.1 No Geolocation Information
                                                           - Lat: 47.542 Lon: -122.3123

No Geolocation Information
- Lat: 37.5985 Lon: 126.9782999999999

3 - Lat: 36.9871 Lon: 126.927000000000002

No Geolocation Information
                                                                                                                             Lon: -122.3123
                    118.223.38.1
118.217.148.153
118.217.149.153
  IP.
  IP]
  IP]
                    10.101.0.96
10.101.0.94
10.101.0.96
 [IP]
                    10.101.0.36
10.222.15.128
10.222.15.126
10.222.10.160
10.222.10.194
 IP]
  IP]
  ΙP
  IP]
                                                              No Geolocation Information
- Lat: 37.45359999999999
- Lat: 47.6344 Lon: -1
- Lat: 47.6344 Lon: -1
                    10.222.14.93
211.210.54.34
  ΙP
                                                                                                                                                                             126.73169999999999
                                                                                                                                                           Lon:
 [IP]
                    52.93.248.71
52.93.248.12
                                                                                                                     IP]
IP]
IP]
IP]
IP]
                    52.93.248.52
54.239.42.44
                                                                          Lat: 47.6344
Lat: 47.6344
                                                                                                                          Lon: -122.34219999999999
Lon: -122.34219999999999
                                                                         Lat: 47.6344
Lat: 47.6344
Lat: 47.6344
Lat: 47.6344
                    52.93.248.81
52.93.248.93
                                                                                                                                             -122.34219999999999
                                                                                                                          54.239.41.13
                                                                                                                          lon:
                                                                                                                                             -122.34219999999999
```

4 - 5 104.com.tw

```
root@ubuntu:/home/jo/network# python3 sub.py 104.com.tw
[IP] 122.147.53.67 -
[IP] 192.168.0.1 No Ge
[IP] 118.223.38.1 -
                                                  - Lat: 25.047799999999995 Lon: 121.531795
No Geolocation Information
- Lat: 37.5985 Lon: 126.9782999999999
49 - Lat: 36.9871 Lon: 126.927000000000002
53 - Lat: 36.9871 Lon: 126.927000000000002
No Geolocation Information
No Geolocation Information
No Geolocation Information
No Geolocation Information
- Lat: 37.5112 Lon: 126.97410000000002
- Lat: 37.5112 Lon: 126.97410000000002
- Lat: 37.5112 Lon: 126.97410000000002
No Geolocation Information
No Geolocation Information
                                                                    Lat:
                                                                                     25.047799999999995
                                                                                                                                         Lon: 121.53179999999998
                   118.217.149.149
118.217.148.153
10.101.1.62
[IP]
[IP]
                  10.101.1.56
10.101.1.46
10.222.15.110
10.101.1.26
 ĪΡ
  ΙP
  ΙP
                  58.229.9.10
58.229.9.2
58.229.9.10
10.222.6.9
10.222.6.43
10.222.6.15
 ΙP
 ΙP
                                                     IP'
 IP
[IP]
                   129.250.8.153
                   118.217.96.222
129.250.7.32
129.250.2.155
                                                                                                                                        Lon: -104.8738

Lon: -104.8738

Lon: -104.8738

Lon: -104.8738

Lon: -104.8738

Lon: -104.8738
 ΙP
                  129.250.8.153
129.250.4.182
129.250.7.15
129.250.2.83
 IP
IP
 IP]
IP]
IP]
                                                                Lat: 39.623700000000014
Lat: 39.623700000000014
                   129.250.4.182
129.250.2.83
                                                                                   39.623700000000014
39.623700000000014
                                                                                                                                         Lon: -104.8738
Lon: -104.8738
                                                                   Lat :
                                                                 Lat :
                                                                                                                                      Lon: 121.53179999999998

Lon: -104.8738

Lon: 121.53179999999998

Lon: 121.53179999999998
 IP
IP
                   61.58.33.78
129.250.2.83
                                                                Lat :
                                                                                25.047799999999995
39.623700000000014
 IP
IP
                  61.58.33.78
61.58.33.54
                                                                Lat :
                                                                                 25.047799999999995
                                                                                  25.047799999999995
                                                                      Lat :
Lat :
Lat :
                                                                                                                                                             121.53179999999999
121.53179999999998
121.5317999999999
121.53179999999998
121.53179999999998
                   139.175.58.201
139.175.56.142
139.175.58.201
                                                                                                                                             Lon :
Lon :
 IP
IP
                                                                                       25.047799999999995
25.047799999999995
                                                                                        25.047799999999995
25.047799999999995
25.047799999999995
 IP
IP
                                                                       Lat
Lat
                   192.72.155.205
                                                                                                                                              Lon
                   139.175.56.142
                                                                                                                                              Lon
```

South Korea

5 - 1 Gmarket.co.kr

```
root@ubuntu:/home/jo/network# python3 sub.py Gmarket.co.kr
[Destination]
                  Gmarket.co.kr
[IP]
[IP]
        117.52.47.78
                              Lat :
                                      37.5112
                                                  Lon: 126.97410000000002
                         No Geolocation Information

- Lat: 37.5985 Lon: 126.9782999999999

- Lat: 36.9871 Lon: 126.927000000000
        192.168.0.1
[IP]
[IP]
[IP]
        118.223.38.1
                                                    Lon : 126.92700000000002
        118.217.148.149
        118.217.149.153
118.217.149.149
                                         36.9871
36.9871
                                                      Lon: 126.92700000000002
                                  Lat :
[IP]
                                  Lat:
                                                      Lon: 126.92700000000002
        10.101.0.96
                         No Geolocation Information
[IP]
        10.101.0.94
                         No Geolocation Information
[IP]
        10.101.0.96
                         No Geolocation Information
[IP]
        10.101.0.48
                         No Geolocation Information
[IP]
        10.101.0.52
                         No Geolocation Information
[IP]
        10.222.15.128
                           No Geolocation Information
[IP]
        175.124.170.254
                                 Lat: 37.5985
                                                     Lon: 126.97829999999999
[IP]
                           No Geolocation Information
        10.222.10.174
        118.221.4.146
211.44.125.62
                               Lat : 35.1028
Lat : 37.5112
[IP]
                                                   Lon:
                                                           129.0403
ΙP
                                                           126.974100000000002
                                                   Lon:
[IP]
                               Lat: 37.5112
                                                   Lon: 126.97410000000002
        118.130.13.41
[IP]
[IP]
                              Lat: 37.5112
                                                  Lon: 126.974100000000002
        1.208.146.34
                              Lat: 37.5112
Lat: 37.5112
        203.233.17.14
                                                   Lon: 126.97410000000002
IP
IP
                                                   Lon: 126.97410000000002
        1.208.146.34
                                Lat: 37.5985
        182.162.152.10
                                                    Lon: 126.9782999999999
        61.111.34.174
117.52.0.254
ΙP
                                       37.5112
                                                           126.97410000000002
                               Lat:
                                                    Lon:
                              Lat: 37.5112
                                                  Lon: 126.97410000000002
ΙP
ΙP
        182.162.152.10
                                Lat:
                                        37.5985
                                                    Lon: 126.97829999999999
        110.45.129.66
IP1
                               Lat: 37.5112
                                                    Lon: 126.97410000000002
IP.
        222.231.30.166
                                 Lat :
                                        37.5112
                                                     Lon: 126.97410000000002
        222.231.30.174
                                 Lat
                                         37.5112
                                                     Lon:
                                                            126.97410000000002
```

5 - 2 Inven.co.kr

```
root@ubuntu:/home/jo/network# python3 sub.py Inven.co.kr
[Destination] Inven.co.kr
[IP]
[IP]
[IP]
[IP]
         182.162.110.129
                                                       Lon: 126.97410000000002
                                   Lat: 37.5112
         192.168.0.1
                          No Geolocation Information
                           - Lat: 37.5985
- Lat: 36.9871
         118.223.38.1
                                                  Lon: 126.97829999999999
         118.217.149.149
                                                       Lon: 126.92700000000002
                          No Geolocation Information
         10.101.0.54
[IP]
         10.101.0.26
                          No Geolocation Information
[IP]
[IP]
         10.101.0.46
                          No Geolocation Information
         10.222.15.108
                            No Geolocation Information
[IP]
         10.222.10.158
                            No Geolocation Information
[IP]
[IP]
         118.221.4.74
                               Lat: 35.1028
                                                    Lon:
                                                            129.0403
                            No Geolocation Information
         10.222.10.194
[IP]
         58.229.10.18
                           - Lat: 37.5112
                                                    Lon: 126.97410000000002
                                 Lat : 37.5112
Lat : 37.5112
                                                      Lon: 126.97410000000002
Lon: 126.97410000000002
[IP]
         210.107.53.213
[IP]
         210.107.53.213
[IP]
         1.213.148.9
                              Lat: 37.5112
                                                   Lon: 126.97410000000002
                              - Lat : 37.5112
Lat : 37.5112
Lat : 37.5112
                                                     Lon: 126.97410000000000
         210.107.53.213
[IP]
[IP]
                                                   Lon: 126.97410000000002
Lon: 126.97410000000002
         1.213.148.9
         1.213.148.1
                                Lat : 37.5112
Lat : 37.5112
[IP]
                                                     Lon: 126.97410000000002
         1.213.147.134
[IP
         203.233.117.186
                                                       Lon: 126.97410000000002
[IP]
         1.213.147.134
                                Lat: 37.5112
                                                     Lon: 126.97410000000002
                              Lat : 37.5112
Lat : 37.5112
                                                   Lon: 126.97410000000002
[IP]
         1.213.150.6
         61.111.0.154
                                                    Lon: 126.97410000000002
         182.162.65.38
                                Lat: 37.5112
                                                     Lon: 126.97410000000002
```

```
root@ubuntu:/home/jo/network# python3 sub.py Auction.co.kr
[Destination] Auction.co.kr
[Destination] Auction.co.kr
[IP] 183.111.131.60 - Lat : 37.5985
[IP]
[IP]
[IP]
[IP]
[IP]
[IP]
[IP]
                                                      Lon: 126.97829999999999
         192.168.0.1 No Geolocation Information
                       118.223.38.1
         118.217.148.149
         118.217.148.153
         118.217.149.153
         10.101.0.94
         10.222.15.134 No Geolocation Information
                          No Geolocation Information
         10.101.0.28
[IP]
[IP]
[IP]
[IP]
         10.222.15.116
                             No Geolocation Information
                            No Geolocation Information
         10.222.10.172
                               Lat: 37.5112

Lat: 35.1028

Lat: 37.5985

Lat: 37.5112

Lat: 37.5112

Lat: 37.5985

Lat: 37.5112

Lat: 37.5112
         58.229.12.14
                                                     Lon: 126.97410000000002
                                                      Lon : 129.0403
Lon : 126.9782999999999
         118.221.4.158
[IP]
[IP]
         128.134.10.29
                                                     Lon: 126.97410000000002
Lon: 126.97410000000002
         1.255.74.185
[IP]
         1.255.23.118
                                                      128.134.10.29
IP]
         112.174.62.214
TP
         112.188.241.154
         112.188.241.154
                                   Lat:
                                            37.5112
                                                         Lon:
                                                                 126.97410000000002
```

5 - 4 <u>11st.co.kr</u>

```
root@ubuntu:/home/jo/network# python3 sub.py 11st.co.kr
[Destination] 11st.co.kr
[Destination]
[IP]
[IP]
[IP]
[IP]
[IP]
[IP]
         113.217.247.100
                                                           Lon: 126.97410000000002
                                      Lat: 37.5112
                           192.168.0.1
         118.223.38.1
118.217.149.153
                                                         118.217.148.149
118.217.148.153
10.101.1.54
10.101.1.60
 IP
IP
          10.101.1.48
[IP]
[IP]
[IP]
[IP]
[IP]
[IP]
[IP]
          10.222.15.122
                             No Geolocation Information
                            No Geolocation Information
          10.101.1.52
          10.222.10.174
                               No Geolocation Information
                              10.222.10.164
          175.124.53.125
         1.255.23.170
1.255.25.30
         1.255.23.170
1.255.23.170
172.27.251.126
172.27.252.102
1.254.241.63
[IP]
                                No Geolocation Information
[IP]
                                  Lat: 35.338600000000014
                                                                     Lon: 129.03859999999997
[IP]
[IP]
[IP]
[IP]
[IP]
[IP]
[IP]
          172.27.251.114
                                No Geolocation Information
          172.27.251.126
172.27.251.122
113.217.238.26
                                No Geolocation Information
                                No Geolocation Information
                                    Lat: 37.5112
Lat: 37.5112
Lat: 37.5112
Lat: 37.5112
                                                          Lon:
                                                                   126.974100000000002
          113.217.238.18
                                                           Lon:
                                                                    126,974100000000002
          113.217.238.154
113.217.255.33
172.18.190.206
                                                           Lon : 126.97410000000002
                                                                    126.974100000000002
                                                           Lon:
                                No Geolocation Information
No Geolocation Information
 ΙP
          172.18.190.206
                                      Lat : 37.5112
Lat : 37.5112
                                                                   126.97410000000002
126.97410000000002
          113.217.247.100
                                                            Lon:
          113.217.247.100
                                                            Lon:
          113.217.247.6
                                    Lat: 37.5112
                                                         Lon: 126.97410000000002
```

5 - 5 Nexon.com

```
root@ubuntu:/home/jo/network# python3 sub.py Nexon.com
[Destination] Next
[IP] 183.110.0.23
[IP] 192.168.0.1
                   Nexon.com
                                Lat: 37.5112
                                                    Lon: 126.97410000000002
                          No Geolocation Information
[IP]
[IP]
[IP]
                               Lat : 37.5985
- Lat : 36.9871
                                                   Lon: 126.97829999999999
         118.223.38.1
                                                       Lon: 126.92700000000002
Lon: 126.92700000000002
         118.217.149.149
                                   Lat: 36.9871
Lat: 36.9871
         118.217.148.153
[IP]
         118.217.148.149
                                                       Lon: 126.92700000000002
[IP]
                          No Geolocation Information
         10.101.1.56
[IP]
         10.101.1.62
                          No Geolocation Information
[IP]
[IP]
         10.101.1.50
                          No Geolocation Information
         10.101.1.48
                          No Geolocation Information
[IP]
         10.101.1.46
                          No Geolocation Information
         1.255.74.189
10.222.10.144
[IP]
                               Lat: 37.5112
                                                    Lon: 126.97410000000002
[IP]
                            No Geolocation Information
                            No Geolocation Information
[IP]
         10.222.10.188
         211.44.125.50
1.255.74.187
                                Lat: 37.5112
Lat: 37.5112
[IP]
                                                     Lon:
                                                             126.97410000000002
[IP]
                                                     Lon: 126.97410000000002
                                 Lat: 37.5112
Lat: 37.5112
Lat: 37.5112
Lat: 37.5112
[IP]
         175.126.127.126
                                                       Lon: 126.97410000000002
 [IP]
         211.44.125.50
                                                      Lon: 126.97410000000002
                                                      Lon: 126.97410000000002
         112.188.246.42
         112.188.244.42
                                                       Lon: 126.97410000000002
[IP]
                                Lat : 37.5112
Lat : 37.5112
 [IP]
         112.174.60.2
                                                     Lon: 126.97410000000002
                                                      Lon: 126.97410000000002
         112.188.244.42
         112.188.246.42
                                  Lat: 37.5112
                                                       Lon: 126.97410000000002
```

traceroute에서 '* * *'이 뜨는 이유

- 1. 보안상의 이유로 패킷을 받은 해당 라우터에서 막아 놓은 경우.
- 2. 해당 라우터의 응답 시간이 지난 경우.