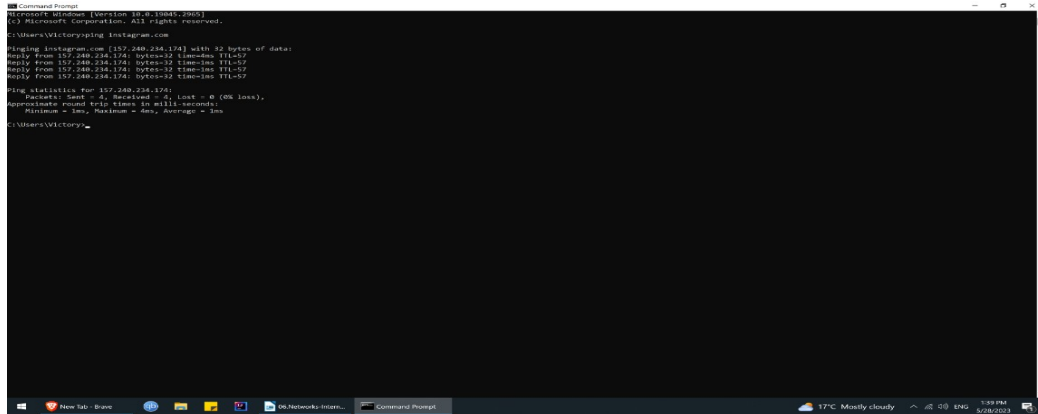


# Exercise: Networks, Internet and Protocols

Problems for exercises and homework for the ["Software Technologies" course @ Software University.](#)

## 1. Trace the route to a certain IP address

1. Use the ping command to test connectivity to an external website of your choosing /Example: wikipedia.com/
2. Add a screenshot of the result here:



```
Microsoft Windows [Version 10.0.19045.2851]
(c) Microsoft Corporation. All rights reserved.

C:\Users\Victory>ping instagram.com

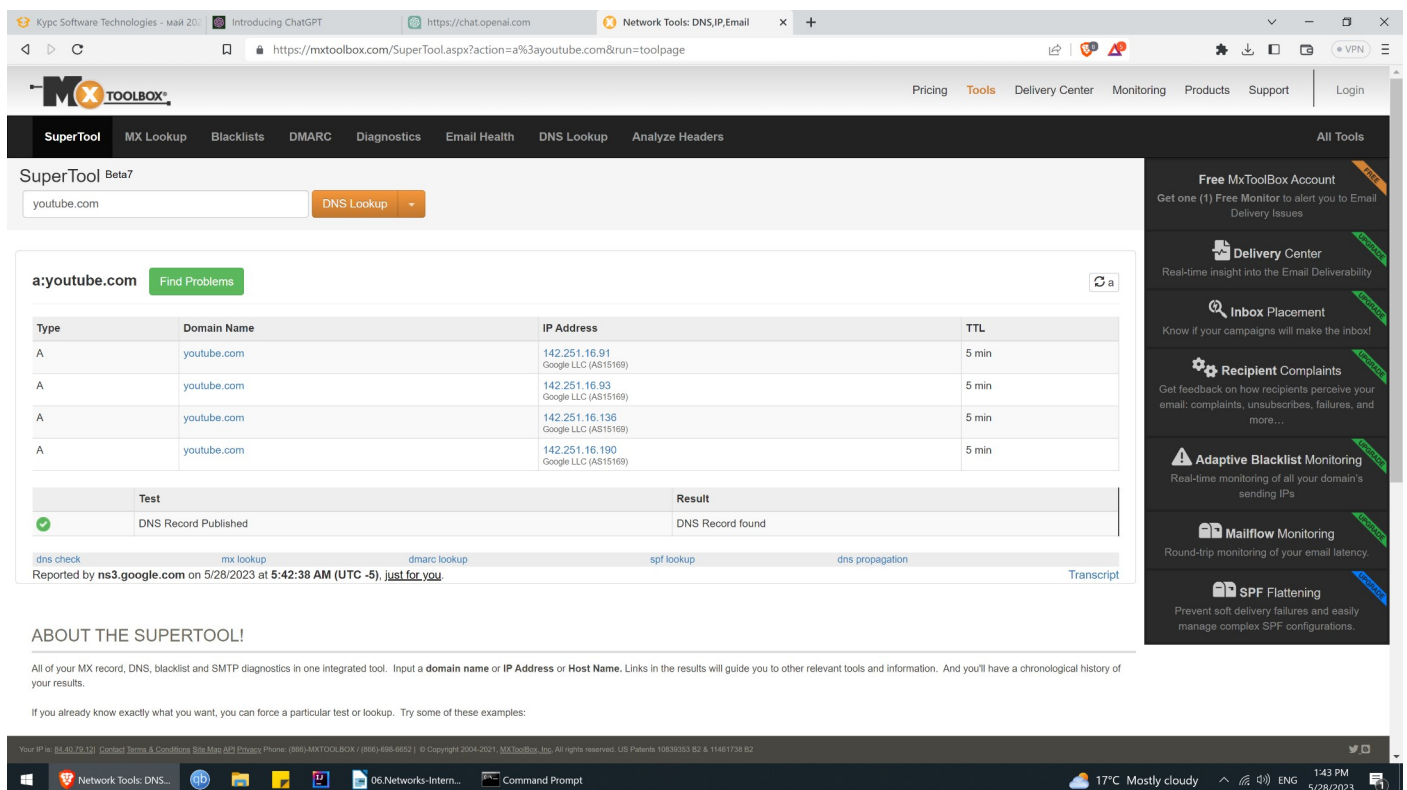
Pinging instagram.com [157.140.234.174] with 32 bytes of data:
Reply from 157.140.234.174: bytes=32 time=1ms TTL=57
Reply from 157.140.234.174: bytes=32 time=1ms TTL=57
Reply from 157.140.234.174: bytes=32 time=1ms TTL=57
Reply from 157.140.234.174: bytes=32 time=1ms TTL=57

Ping statistics for 157.140.234.174:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milliseconds:
        Minimum = 1ms, Maximum = 1ms, Average = 1ms

C:\Users\Victory>
```

## 2. Find the IP address behind a domain name

1. Using an online DNS lookup tool, like **DNS Checker** or **MX Toolbox** find the IP address of a domain. /Example: medium.com/
2. Add a screenshot of the result here:



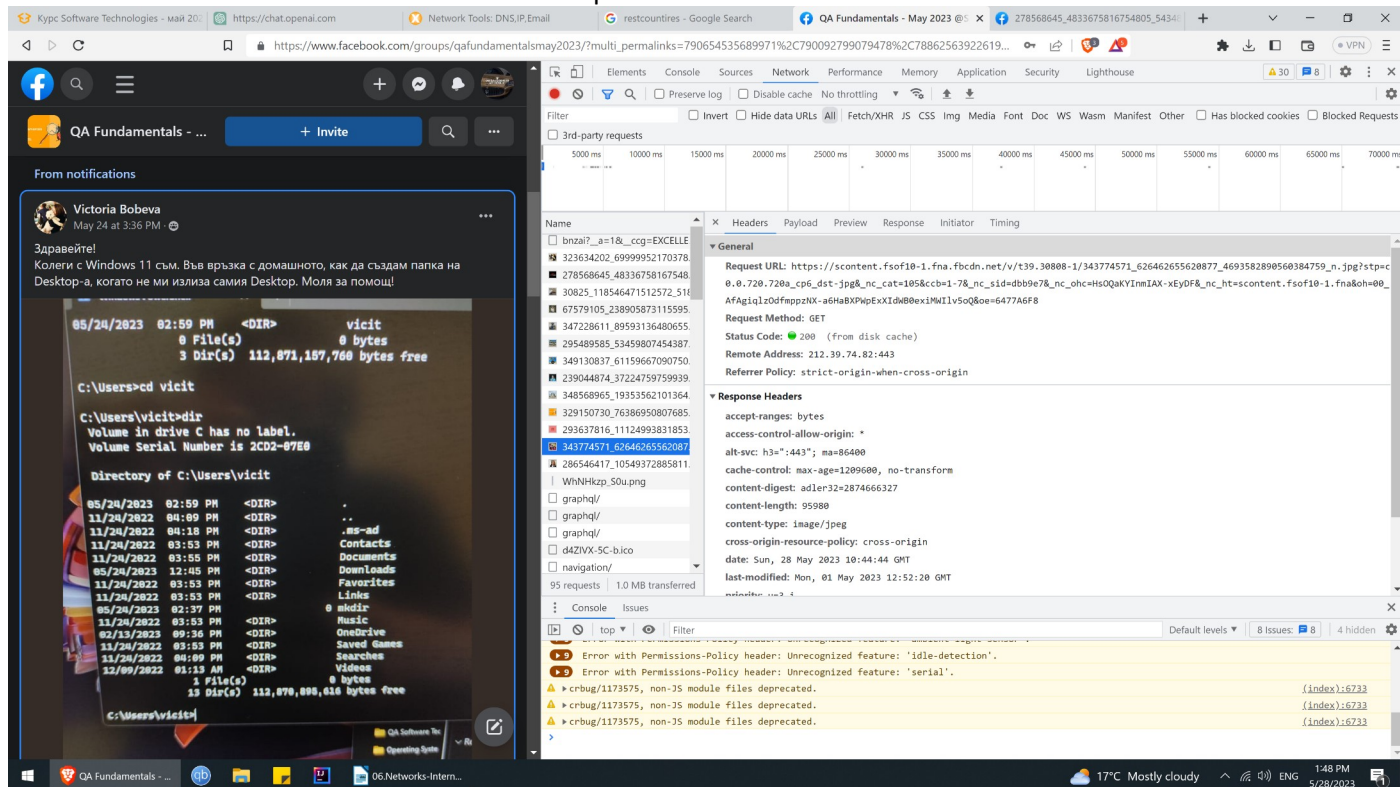
The screenshot shows the MX Toolbox SuperTool interface. The domain 'youtube.com' is entered in the search bar. The results show four A records for 'youtube.com' with IP addresses 142.251.16.91, 142.251.16.93, 142.251.16.136, and 142.251.16.190, all with a TTL of 5 min. Below the table, a 'Test' section shows 'DNS Record Published' with a green checkmark and 'DNS Record found' as the result. The interface also includes a sidebar with various tools like Delivery Center, Inbox Placement, Recipient Complaints, Adaptive Blacklist Monitoring, Mailflow Monitoring, and SPF Flattening.

Type	Domain Name	IP Address	TTL
A	youtube.com	142.251.16.91 Google LLC (AS15169)	5 min
A	youtube.com	142.251.16.93 Google LLC (AS15169)	5 min
A	youtube.com	142.251.16.136 Google LLC (AS15169)	5 min
A	youtube.com	142.251.16.190 Google LLC (AS15169)	5 min

Test	Result
✓ DNS Record Published	DNS Record found

### 3. Execute HTTP GET

1. Using <https://restcountries.com/> and DevTools on your browser. Execute a GET request for a country of your choosing. /Example: <https://restcountries.com/v3.1/name/deutschland/>
2. Add a screenshot of the result with DevTools open here:



The restcountries.com site was down so I used facebook to find a GET request.