

Traceroute or ping the IP address (like 8.8.8.8) to find the traceroute to the IP address as destination. (Used Script: **traceroute_at_location.py** for this purpose.)

From the traceroute, select the prefix. For instance, if there is hops away: 10.199.4.56 in the traceroute then your select prefix = 10.199

Find the traceroute to the IP addresses (i.e. from 10.199.0.0 to 10.199.255.255) and write the traceroute in the data.txt file. Use Script: **traceroute_prefix.py** for this purpose. Each line containing hops away and : contains IP address that is active, which might be router/networking device or end system. We only need routers/networking devices in the topology.

Read data.txt file and create a route.txt file containing routers/networking devices in each traceroute to the given IP address (i.e. any IP address from 10.199.0.0 to 10.199.255.255). Each traceroute must be separated with Line End: line so that the traceroute for two IP addresses can be differentiated while building the topology using the Graph. (Used Script: **all_active_ips.py** for this purpose)

Read the route.txt file and create the topology using Graph from network python library. After each end of Each Line End: line in the routes.txt indicates the end of lines of routers/networking devices in the traceroute to the given IP address as destination. (Used Script: **topology.py** for this purpose.