Methods

Imports:

boto3 is the Amazon Web Services (AWS) SDK for Python, which allows Python developers to write software that makes use of services like Amazon DynamoDB.
scapy is a powerful Python-based interactive packet manipulation program and library used for network discovery and security auditing.
tqdm is used for showing progress bars.

Initialization:

dynamodb is initialized to connect to Amazon DynamoDB.
The table named 'ipAddresses' is fetched, and its creation time is printed.

Traceroute Function:

The function traceroute() performs a basic traceroute to the specified destination. The maximum number of hops (TTLs) can be set, and it returns a list of IP addresses that it encountered during the traceroute.

Helper Functions:

check_ip(ip): This checks if the IP starts with any of the predefined prefixes.
ip_increment(ip, dif, increments=1): It increments an IP address by a certain value. This is useful for scanning a range of IPs.

Multi Traceroute Function:

The function multi_traceroute() performs a traceroute for a given count and logs the result into a DynamoDB table. For each IP address in the traceroute output, it constructs a dictionary with the IP and its adjacent IP addresses (edges) and then inserts it into the DynamoDB table.
It also uses the ip_increment() function to increment the IP address for the next iteration.

Execution:

If the script is executed as the main program, it sets the destination IP range, the maximum number of hops for the traceroute, and the count for how many times to execute the traceroute. It then calls the multi_traceroute() function.
In essence, the script is designed to perform multiple traceroutes starting from a given IP and incrementing the IP for each iteration. This will allow you to understand the network topology by analyzing the routes that packets take from the source to various destinations. The results are

stored in a DynamoDB table, which can later be analyzed or visualized to understand the network topology.