Unit 6 Lab

Address Resolution Tables

1. **Why are you losing internet access when you alter the ARP to have a static address? Why does deleting the static address, then re-pinging the gateway fix the issue?**

You lose internet access because then it isn't mapped when it is changed, and it has to be mapped again. It fixes it because the ARP cache is reset, which allows you to be connected to the internet again.

2. **ARP was designed to work with IPv4. What is used for IPv6 instead?**
Neighbor Discovery Protocol (NDP) is used for IPv6.

3. **Look up the following systems: Nessus, Nmap, and Retina. Use contextual clues to figure out which specific program the following question refers to. Based on your research, answer the following questions:**

   a. **What do the three programs do?**

Nessus – vulnerability scanner program.

Nmap – discovers hosts and services on a computer network, and scans for vulnerabilities.

Retina – allows you to scan multiple platforms, and provides you with automatic fixes and the ability to create your own audits (thanks Google).

   b. **If you were choosing one program over another, how would you evaluate which one to choose (based on software considerations, not cost, or generally liking the company/product)?**
I would choose the one that offers the most features, and does what I need it to do the best. I would base this off videos of people using the software, and people's opinions on the software.

Why Good Hackers Make Good Citizens
1. **Why does Bracy argue that Benjamin Franklin is "one of the greatest hackers of all time?"**

She says "He was a tinkerer and a statesman whose conception of citizenship was always predicated on action. He believed that government could be built by the people, and we call those people civic hackers."

2. **What would a black hat "civic hacker" look like for Bracy?**
Someone who believes they can bring a 21st-century tool set to bear on the problems that government faces.

3. **Visit the Code for America site "brigade.codeforamerica.org" that Bracy mentions in the video. Which brigade is closest to you? What's their website, and what is their next event?**

The closest one to me is **Open Columbia County**. The URL to their website is opencolumbiaco.org. All of their events right now are virtual for the time being. I can't find when their next event is without joining groups connected to them.