Create a presentation to answer the questions for your assigned topic.

Visit other presentations to complete our answers for other two topics.

**Topic 1: Network Access**

1. What is “WiFi”?
   1. Provide specific details about hardware and software.
   2. Provide specific details about frequencies and different versions of WiFi
2. What is “Bluetooth”?
   1. Provide specific details about hardware and software.
   2. How is “Bluetooth” different from “WiFi”?
3. What is “Ethernet”?
   1. Provide specific details about hardware and software.
   2. How is “Ethernet” different from “WiFi” and “Bluetooth”?
4. What is “Dial-Up”?
   1. Provide specific details about hardware and software.
   2. Provide specific details about the history of “Dial-Up”.
5. WiFi Hub / Home Router
   1. Provide specific details about hardware and software.
   2. Provide specific details about how it is related to the above technologies.
   3. Provide specific details about speed and capacity.
6. Wireless Printers / Other Devices
   1. Explain how wireless printers work.
   2. Provide examples of other wireless devices (besides phones, laptops, etc.)
   3. List the pros and cons of wired versus wireless devices.
7. Typical Home Network
   1. Provide a diagram of a typical home network
   2. List each device and how it makes use of the above technologies

**Topic 2: Internet Services**

1. What is an Internet Protocol Address (e.g. 192.168.1.15) ?
   1. What do the numbers mean?
   2. How is it related to a website name (Domain Name)?
   3. How does it allow computers to identify and locate each other?
   4. Who owns and controls IP numbers? Are IP numbers worth money?
2. IPv4 (Internet Protocol Version 4) compared to IPv6 (Internet Protocol Version 6)
   1. What is the difference?
   2. What are some limitations of IPv4?
   3. How will IPv6 address these issues?
   4. What is the plan for replacing IPv4 with IPv6?
3. Domain Name
   1. What is a domain name?
   2. How are domain names related to IP numbers?
   3. What do the suffixes like “.com”, “.org”, “.ca” mean?
   4. Who owns and controls Domain Names?
   5. Is there a standard format for domain names or can each country define their own standard?
   6. How can you get a domain name? Are they worth money?
4. Domain Name Server
   1. How does a DNS (Domain Name Server) work?
   2. What happens if your phone or computer cannot find a DNS?
   3. Where are they located in the Internet? How many are there?
   4. What happens if you make changes to a domain name or its related IP number?
5. DHCP Server
   1. What is a DHCP server? What function does it provide?
   2. What happens if your phone or computer cannot find a DHCP Server?
   3. Where are they located in the Internet?
6. Gateway Server
   1. What is a Gateway server? What function does it provide?
   2. What happens if your phone or computer cannot find a Gateway Server?
   3. Where are they located in the Internet?
7. Network Router / Network Switch
   1. What is a Network Router? What function does it provide?
   2. What is a Network Switch? What function does it provide?
   3. Where are they located in the Internet? How many are there?
   4. Provide an example pathway from your phone to your favorite web site through a series of switches and routers. Show how domain names and IP addresses are used.
8. Local Area Network (LAN)
   1. What services and hardware components are part of a LAN?
   2. Provide a labeled diagram of a typical LAN.
9. Wide Area Network (WAN)
   1. What services and hardware components are part of a WAN?
   2. How is a WAN different from a LAN?

**Topic 3: Webservers & Applications**

1. Client Server Model
   1. What is the client server model?
   2. When you use your phone to send text messages, is it the client or the server?
   3. Do you always need client software when accessing applications on the internet?
   4. Where are the service applications located in the internet?
2. Internet Server Hardware
   1. What are the main hardware features of an internet server?
   2. How is an internet server similar to and different from a desktop PC?
   3. Compare an internet server(s) for a large company like Ebay to the internet server(s) for a small company.
3. Internet Server Software
   1. What are the main software features of an internet server?
   2. How is internet server software similar to and different from a desktop PC software?
   3. Compare an internet server(s) for a large company like Ebay to the internet server(s) for a small company.
4. HTTP versus HTTPS
   1. What does HTTP stand for? Why is it used in front of web addresses (e.g. <http://www.google.com>)
   2. What does HTTPS stand for? How is it different from HTTP?
   3. Discuss some other services such as: FTP, SMTP, etc.
5. Web Server
   1. What functions does a “Web Server” provide?
   2. What special hardware and software is required by a “Web Server”?
   3. What different types of web servers are used by companies on the internet?
6. Database Server
   1. What functions does a “Database Server” provide?
   2. What special hardware and software is required by a “Database Server”?
   3. What different types of web servers are used by companies on the internet?
   4. How are Database Servers related to Web Servers and other Transaction Servers?
7. Email Server
   1. What functions does a “Email Server” provide?
   2. What special hardware and software is required by a “Email Server”?
   3. What different types of email servers are used by companies on the internet?
8. Other Transaction Server (e.g. Voice over IP / Skype , Banking, PayPal, StubHub, etc.)
   1. What is a “Transaction Server”?   
      How is it different from a “Web Server”?
   2. Discuss some transaction services such as those listed above?
9. Online Game
   1. Discuss the network services you would use when playing a tropical online game.
   2. List some of the ways the client software uses different network services.