First Principles: Data Hiding, Modularity, Abstraction

1. Time: 9-11
2. Lecture: Intro to Networking (Continued from previous afternoon)
   1. Review of Networking Equipment
   2. Server Software vs Server Hardware
      1. Ports
   3. TCP/IP model
   4. Application layer: HTTP
      1. Inspecting HTTP traffic with Burp
   5. Transport layer: TCP
      1. Opening a connection (3-way handshake)
      2. Closing a connection (Fin flag)
   6. Inspecting Traffic with Wireshark
3. Activities
   1. Activity: Use Netcat to send data to a partner where one runs netcat in server mode and another runs netcat in client mode
   2. Activity: Use wireshark to sniff netcat traffic from activity A
      1. Identify the three-way handshake
      2. Identify the data being sent
   3. Activity: Use Netcat to make an HTTP request by hand (GET / HTTP/1.1)
   4. Activity: Sniff the wireshark traffic from curl
      1. Identify the port
      2. Identify the HTTP data being sent back