CIDM 6341-01 Current issues in Cybersecurity

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**Question 1: What did you do?**

I installed Wireshark and observed what networks were detected. I analysed some of the open networks I detected to the best of my ability.

**Question 2: What were the results?**

There were a few networks detected around me but only the first 3 were showing activity if that makes sense.

A screenshot of a computer

Description automatically generated

*Networks detected.*

A screenshot of a computer

Description automatically generated

*Packets passing through the WiFi network.*

Opening the other networks namely “awdl0” there was no packets detected. But on the loopback network packets were detected but not as much as on the Wi-Fi network I would say it is because everybody is on the Wi-Fi network hence a lot of information exchange but on the loopback network not a lot of people are on it

A screenshot of a computer

Description automatically generated

*Packets passing through the loopback network.*

**Question 3: What did you learn?**

I learnt what packets are, how they break information into smaller pieces and transfers them as packets across the networks and once it gets to the destination the computer detects the pieces of information and then puts it together and presents it to us.

A network packet operates by selecting the most optimal pathway to reach its intended destination. The route is traversed by all remaining packets within a given message, hence enhancing the efficiency of network traffic by distributing the load evenly over multiple equipment components. For example, in the event of a malfunction with a specific equipment component during the transmission of a message, the packets are rerouted via routers to guarantee the successful delivery of the complete message to its intended destination.

The utilisation of Wireshark facilitates the identification of neighbouring networks, the resolution of network-related problems, and the detection of malware within a network. Cybersecurity professionals commonly utilise tools such as Wireshark to effectively trace connections, examine the contents of suspicious network transactions, and detect instances of heightened network traffic.