Career Preparation Feedback Form

Unit 3: Network Systems

Insert name here

Data Analysis and Security

Question	Best Answer
What is the difference between encoding, encrypting, and hashing? How does this apply to the CIA triad?	Encoding turns data into a different form so it can be safely transmitted or stored. Encryption scrambles data so that only the person with the correct key can reverse the scrambled data and read it. Finally hashing is when you take data and make one fixed string it can't be reversed. Hashing is done via an algorithm that will produce the length of characters. Encoding is part of the CIA triad through making sure the data is accessible and usable. Encryption is part of the CIA triad by providing confidentiality in keeping the data secret. Hashing is part of the CIA triad by providing Integrity in making sure the data doesn't change. Check sums and comparing is important
How would you explain the three states of data?	I would describe the 3 states as this: Data at rest is data stored in a device (example: hard drive, usb, cloud storage) Data in transit is data moving across the network. (example: wifi, between devices, LANS) Data in use is when data is actively being processed by an application or memory (example: app running, RAM etc)

Infrastructure Design

Question	Best Answer
What does a "layered" approach to security mean to you?	It means having several barriers to prevent an attacker from getting to your sensitive data. No system is impenetrable, but by having a layered approach, you lower the odds of a successful breach. Each security layer acts as a backup, so if one fails, others are still there to protect your information.
What is the difference between a Public IP address and a Private IP address?	A public IP address, given to you by your ISP, is visible on the internet, while a private IP address is only used inside a local network. Private IPs can't be reached from outside the network. Public IPs allow devices to communicate with the wider internet.

Network Management

Question	Best Answer
Write a Wireshark filter to see all ssh traffic from 192.168.0.3.	tcp.port == 22 && ip.src == 192.168.0.3
What is the OSI Model?	Open systems interconnection model, standardizes how different computer systems communicate over a network. There are 7 layers, Physical connection, Data Link, Network, Transport, Session, Presentation, Application layer.

Encryption

Question	Best Answer
Where does encryption fall in the CIA triad?	Encryption is part of the CIA triad by providing confidentiality in keeping the data secret, through scrambling the data that can only be decoded through a key that the person receives data has to have.

System Administration

Question	Best Answer
What is privilege creep?	is when users gradually accumulate more access rights or permissions than they actually need, often because old permissions aren't removed when their job roles change.
What is the best way to store essential sensitive data?	To encrypt the data using the most up to date methods