Advanced Computer Networks

- 1. Remembering:
- Recall the layered architecture of computer networks
- Identify the functions of different layers in the TCP/IP protocol suite
- Recognize different local area network protocols such as Aloha, Ethernet, and Token Ring
- 2. Understanding:
- Explain the concept of subnetting and CIDR in IP addressing
- Describe the process of hierarchical routing in internetworking
- Analyze the operation of routing protocols like ARP, RARP, ICMP, RIP, OSPF, and BGP
- 3. Applying:
- Implement shortest path routing algorithms in network communication
- Configure and use TCP and UDP for process-to-process delivery
- Set up and manage virtual LANs and backbone networks
- 4. Analyzing:
- Compare and contrast different routing algorithms (e.g., Distance Vector Routing, Link State Routing)
- Evaluate the impact of congestion control techniques on network performance
- Analyze the quality of service in network communications

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- 5. Evaluating:
- Critique the efficiency of broadcast and multicast routing protocols
- Assess the benefits and limitations of wireless networks in different applications
- Evaluate the advantages of Software Defined Networks (SDN) over traditional networking approaches
- 6. Creating:
- Design a network architecture incorporating advanced routing protocols
- Develop a plan for improving quality of service in a network environment
- Propose a wireless network solution for a specific scenario that maximizes performance and security.

Select Language

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