



### **FINAL EXAM TOPICS**

# **Chapters and Slides**

- All the slides from the course
- Chapter 1-10 except chapter 2 from the online course textbook of NetAcad.com
- Chapter 23 & 28 from book "Java How to Program"
- Review questions from in-class quizzes, midterm exams and post-lab quizzes

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## **Exam Topics**

- Protocol Data Unit (Header, Data, Trailer)
- ARP
- Subnetting from Midterm 2
- OSI and TCP/IP Model and protocol layers
- TCP connection setup and take down
- Broadcast domains and collision domains
- Which devices break broadcast and collision domains
- Troubleshooting commands such ping (ICMP), tracert, ipconfig
- Routing, routing tables, static routes, default routes
- Layer 7 Applications such as DHCP, DNS, HTTP, HTTPS

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## **Exam Topics**

- TCP and UDP services
- Which applications use TCP and UDP
- Read Wireshark captures
- IP addresses and MAC addresses
- IP services such TTL and routing
- Private Addresses
- IPv6 per Midterm2, Valid IPv6 address types (ie no Broadcast)
- Transport Layer Port Numbers
- Duplex
- UTP Ethernet Cable
- Ethernet Switches: Learning, Forwarding Subject to Change with Notice



# **Exam Topics**

- Default gateway
- NAT
- Netstat
- Socket programming
- Multi-threading in socket programming

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