Sunday, February 6, 2022 11:12 AM

شبکه های کامپیوتری: یک شبکه از بین کامپیوتر های مختلف

جواد حبابی ن

Course Overview

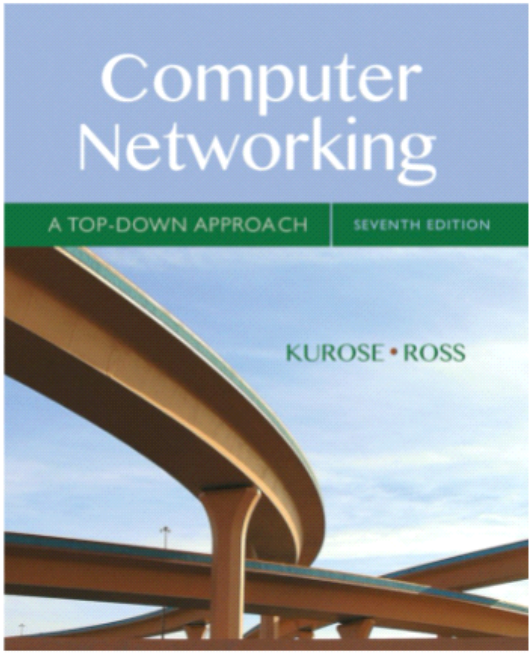
visible to

Computer Networking : A Top-Down Approach

- Concepts are based on today's internet communication protocols.
- Unlike other Computer Network references, network protocols are described from the top-level application layer to bottom.
- Each protocols are presented based on the specific related issues in nowadays' network.

Aims and Scope:

- To give an introductory presentation of computer network related concepts to the students at each communication layer.
- To make the student be familiar with the tools available for information gathering and monitoring of computer networks.



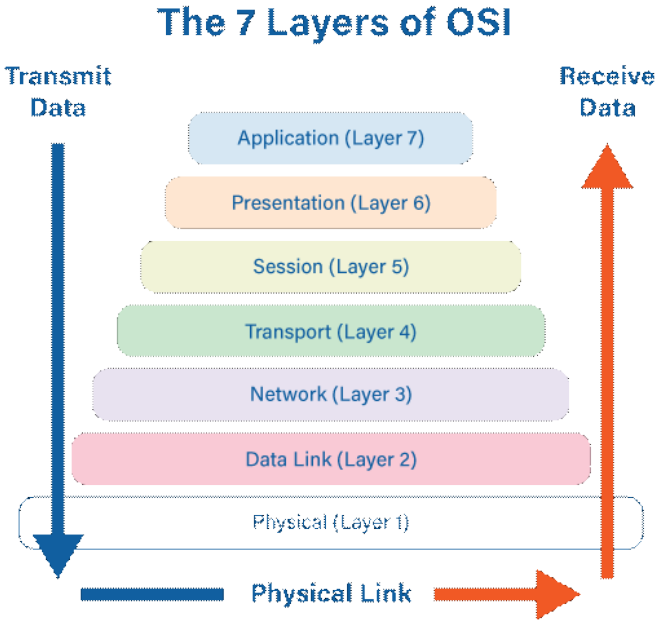
Computer Networking: A Top Down Approach

7th edition
Jim Kurose, Keith Ross
Pearson/Addison Wesley
April 2016

Outline

- Chapter 1: Computer Network and the Internet (3 weeks)
- Chapter 2: Application Layer (2 weeks)
- Chapter 3: Transport Layer (3 weeks)
- Chapter 4: Network Layer: Data Plane (3 weeks)
- Chapter 5: Network Layer: Control Plane (2 weeks)
- Chapter 6: The Link Layer and LANs (2 weeks)

- Chapter 7: Wireless and Mobile Networks
- Chapter 8: Security in Computer Networks
- Chapter 9: Multimedia Networking



7	Application Layer	Human-computer interaction layer, where applications can access the network services
6	Presentation Layer	Ensures that data is in a usable format and is where data encryption occurs
5	Session Layer	Maintains connections and is responsible for controlling ports and sessions
4	Transport Layer	Transmits data using transmission protocols including TCP and UDP
3	Network Layer	Decides which physical path the data will take
2	Data Link Layer	Defines the format of data on the network
1	Physical Layer	Transmits raw bit stream over the physical medium

Course Structure

- Homework and Course Projects : 15 % (3)
- LABs: 25% (5) (at least 2.5 to pass)
- Midterm: 25% (5)
- Final Exam: 35% (7)

Policies

- Homework:
  - Announcements are on each Tuesdays.
  - For each exercise, you have 10 days to submit.
  - Approximately 10 exercises will be defined.
- Projects:
  - 2 Projects will be defined.
  - Project #1 is related to socket programming (will be defined at the end of Chapter 3)
  - Project #2 is a packet sniffer software (defined at the end of network layer Chapter).
- Midterm:
  - From Chapter 1 until the end of Chapter 3.
  - Thursday 30th of Farvardin 1401 at 10:30.
- Final Exam:
  - From the beginning until the end of Chapter 6.
- LABs:
  - Absence is strictly prohibited

حذفی نیست :(