

Lecture 3 - Handout - Application Layer (Part 1)

Computer Networks - Spring 2025

Overview

We will wrap up a bit from Lecture 2 on attacks and then start to look at the Application layer which is the focus of Chapter 2 in the Kurose / Ross book. We will start with looking at common overarching architectures, contrasting the client / server versus a peer-to-peer oriented approach. From there, we will start looking at HTTP, arguably the most dominant and important protocol at the Application layer.

Readings - Lecture 3

Browse Chapter 2 in the book. If you do not have the Kurose / Ross book yet, you can access the free Peterson / Davies book [Links to an external site.](#) and also read through Chapter 9 in that book.

As you are reading Chapter 2, think about the following questions:

- What do we mean by Application Layer?
- What is a client? How does it differ from a server?
- What is a socket? What is an API? Is a socket an API?
- What is HTTP? What does it look like?

Handouts

- This Overview

Key Points - In-Class - Lecture 3

- What is the application layer?
- What does end-to-end argument mean in the context of the application layer?
- Compare and contrast: client / server, peer-to-peer
- What is the transport layer and how does it relate to the application layer?
- What is HTTP? Sketch the basics of the request and the response.

Looking Ahead

- Finish Reading Chapter 2 - Application Layer (Kurose / Ross)
 - If you are using the Peterson / Davies book, read Chapter 9 [Links to an external site.](#)
- Wednesday - Lecture 4 - Application Layer - Part 2
- Next Monday Wednesday - Lecture 5 - Overview of the Transport Layer

Upcoming Due Dates

Assigned	Assignment	Due Date
Last Week	Background Course Survey	Sunday, 9/7
9/1, 5 PM	Homework 1 - Short Answer, Wireshark, GitHub	Sunday, 9/7