Grading Guidelines:

A right answer will get full credit when:

1. It is right (worth 25%)
2. It is right **AND** neatly presented making it easy and pleasant to read. (worth an **extra** 15%)
3. There is an **obvious and clear link** between 1) the information provided in the exercise and in class and 2) the final answer. A clear link is built by properly writing, justifying, and documenting an answer (worth an **extra** 60%).
4. Calculation mistakes will be minimally penalized (2 to 5% of full credit) while errors on units will be more heavily penalized.

**Late Submission** : as specified in the syllabus. Days counting starts one minute after the deadline.

You are welcome/encouraged to discuss exercises with other students or the instructor. But, ultimately, **personal** writing is expected.

* USE THIS FILE AS THE STARTING DOCUMENT YOU WILL TURN IN. **KEEP IN THE QUESTIONS** AND INSERT YOUR ANSWERS.
* IF USING HAND WRITING (STRONGLY DISCOURAGED), REWRITE THE QUESTIONS.
* FAILING TO FOLLOW TURN IN DIRECTIONS /GUIDELINES WILL COST A 30% PENALTY.

Objectives of this assignment:

* to learn independently about an important topic
* to answer questions about the independently studied topic
* to empower you: you can learn any networking topic on your own
* to learn independently new concepts

What you need to do:

Answer the questions and/or solve the exercises described below.

KEEP THE GRADING GUIDELINES ABOVE TO REMEMBER THE DIRECTIONS AND HOW THE HOMEWORK IS GRADED.

Objective: The objective of this assignment is to learn independently about *transport issues* not discussed in class. You must research and read about *Video Streaming*, and build a meaningful "story" that explains what happens when a user plays a remote video.

Resources:

1. **Textbook:** Tanenbaum, Andrew S. and David J. Wetherall. *Computer Networks*. Information is spread out. Look for other resources over the Internet.
2. Wikipedia
3. Your instructor (Through Piazza)
4. Internet at large

Note that the textbook, Module 6/7 material, and your instructor are sufficient to answer all questions in this homework as well as the related self-study questions. The objective is to write at most 2 pages that describes the **network stack** for Video Streaming. You must describe all **components** and **protocols** involved in a Video Streaming. You must map these protocols in a TCP/IP reference model.

Your document must clearly explain **1)** how video transforms into IP packets and **2)** how IP packets become video. On the path from video to IP packets, multiple protocols/standards will be involved. Similarly, from IP packets to video, multiple protocols/standards will be involved. You must **clearly explain** the function of these protocols, the layer where they work, and how they interact with each other (who serves who?).

The reader is **NOT** interested in the description of 20 individual protocols described separately with no relationships with each other.

**What you need to turn in**:

* Electronic copy of this file (including your answers) (standalone). Submit the file as a Microsoft Word or PDF file.
* Recall that answers must be well written, documented, justified, and presented to get full credit.
* How this assignment will be graded:
* A right answer will get full credit when:
* It is right (worth 25%)
* It is right AND neatly presented making it easy and pleasant to read. (worth 15%)
* There is an obvious and clear link between 1) the information provided in the exercise and in class and 2) the final answer. A clear link is built by properly writing, justifying, and documenting an answer (worth 60%).
* Calculation mistakes will be minimally penalized (2 to 5% of full credit) while errors on units will be more heavily penalized.
* You are welcome/encouraged to discuss exercises with other students or the instructor. But, ultimately, personal writing is expected.