EECS498-003 - Lab 7

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Administrivia

- Problem Set 3 due Monday, October 20
- Start looking for Project 1 partners!
- Midterm set for Thursday, October 23, 6-8pm, DOW1014
  - One double-sided cheat-sheet at 10pt
  - Covers up to Chapter 4, no distributed systems
- Today: Distributed Lock with Network

Distributed Lock with Network

Like in Problem Set 2, but no server and there is now a network.

- ▶ Each host records whether it holds the lock
- ▶ Host that holds lock can send message to transfer lock ownership to another host
- ▶ Initially, host with id 0 holds the lock
- ▶ Network model: **different from class!**
    - ▶ In-class demo: messages can be sent out of order and duplicated
    - ▶ Here: messages can be sent out of order, but can only be received **once**
    - ▶ How can message duplication cause problems?
- ▶ Prove: There is a unique host that holds the lock
- ▶ Starter code at lab07.dfy on the course GitHub
- ▶ UtilitiesLibrary.dfy can be found in the same folder