Notes for November 13, 1998

1. Greetings and Felicitations!
2. Puzzle of the Day
3. Privilege in OSes
   a. None (original IBM OS; protect with password, or anyone can read it)
   b. Fence, base and bounds registers; relocation
   c. Tagged architectures
   d. Memory management based schemes: segmentation, paging, and paged segmentation
4. User identification
   a. Go through UNIX idea of “real”, “effective”, “saved”, “audit”
   b. Go through notion of “role” accounts; cite Secure Xenix, DG, etc.
   c. Go through PPNs (TOPS-10) and groups
   d. Review least privilege
5. Privilege in Languages
   a. Nesting program units
   b. Temporary upgrading of privileges
6. Different forms of access control
   a. UNIX method
   b. ACLs: describe, revocation issue
   c. MULTICS rings: (b_1, b_2) access bracket - can access freely; (b_2, b_3) call bracket - can call segment through gate; so (4, 6, 9) as example
   d. Capabilities: file descriptors in UNIX