CS 499 – Distributed Systems  
Friday, September 11, 2009

Notes:

* Socket Programming
  + Server Side
    - ServerSocket( portNumber );
    - accept ()
      * returns
      * socket() //connection is established and we now have an object
        + getInputStream()
        + getOutputStream()
    - // Peer
      * listening for request
      * does have a server socket as well
  + Client Socket
    - uses the same socket object
    - socket ( IP, port )
  + Port number on the server side does not change
    - packets have port 80
    - two tuples are sent by the client to ensure delivery
      * IP of Server
      * Port of the Server
      * IP of the Client
      * Port of the Client
  + Synchronization
    - its best to synchronize methods to protect your data
    - synchronize does not allow multiple threads to access the same method at the same time
  + Cubby Hole Example
    - Producers produce data into the cubby hole
    - Consumers uses the data
    - if a consumers occupies the cubby hole with no data to use, then the producer cannot place the data the consumer needs.
    - so the consumers is asked to wait while the producer supplies the data
    - After the Producer is done producing data, the Producer “notifies” the worker thread to wake up.