**In class activity - Ch.2 (2.6 P2P applications: BitTorrent and DHT)**

P2P applications – use TCP

1) P2P for file sharing

* Ex. BitTorrent, PPLive, ppstream
* Used for file distribution, video streaming, music sharing, etc.
* BitTorrent (2012) = is an application but a protocol as well (Fig. 2.26)
  + Torrent =
  + Tracker =
  + Rarest first =
  + Choked/unchoked peers =
  + Optimistically unchoked peer =
  + Tit-for-tat algorithm =
  + Peer churn =
  + Uses Kademlia DHT to create a distributed tracker   
    ex. (key, value)=(TorrentID, IPs having it)
  + VERY scalable

1. DHT = used to implement a DB in a P2P net.

* Each peer stores a subset of entries (key, value)
* Uses a hash fct. = many to one mapping
* Ex. store entry in peer having the closest ID to the key