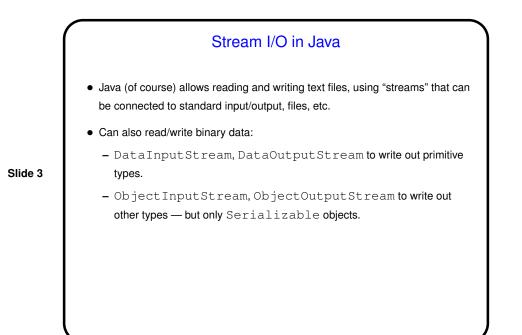
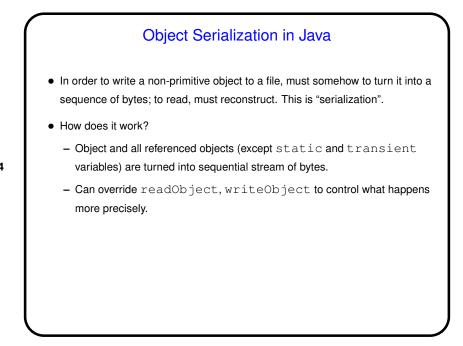
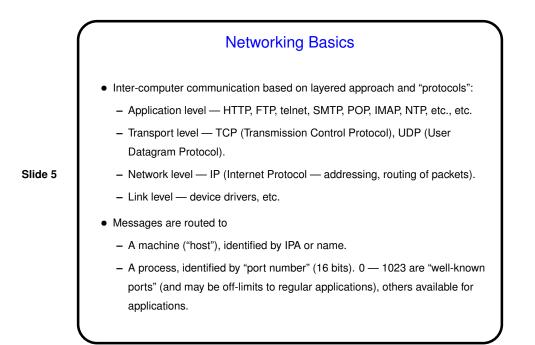


## Distributed-Memory Programming in Java Using Sockets

- Based on client/server model.
- Before going further, some background ...

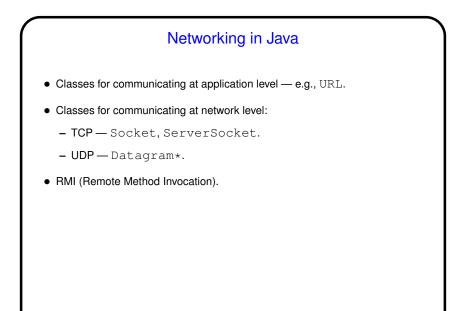






## Networking Basics — TCP and UDP

- UDP independent messages, no guarantees about reliability or message order analogous to (snailmail) letter.
- TCP point-to-point channel, guarantees reliability and message order analogous to phone call. Endpoints called "sockets".



## Distributed-Memory Programming in Java Using Sockets

- Based on client/server model.
- Server sets up "server socket" specifying port number, then waits to accept connections. Connection generates socket.
- Client connects to server by giving name/IPA and port number generates a socket.
- On each side, get input/output streams for socket, which you can then operate on exactly like you operate on streams connected to files. Program must define protocol for the two sides to communicate. (Like MPI, no? Except you can more easily transmit objects!)

