LTAT.06.007 Distributed Systems

Seminar 3 - Introduction to Sockets

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What is a Socket

One endpoint of a two-way communication link
Established between two programs running on the network/system
A combination of an IP address and a port number
Can be uniquely identified by its two endpoints
Can have multiple connections between the host and the server
Port numbers

The logical address of each application or process
Uniquely identifies a network-based application on a computer
Assigned automatically by the OS, manually by the user or is set as a default for some popular applications
Transmission of data between a network and an application
For an incoming message/packet, the IP address is used to identify the destination computer/node, whereas the port number further specifies the destination application/program in that computer
TCP Socket (Stream Sockets)

Connection oriented communication

TCP 3 Way Handshaking
TCP Server

TCP Client

TCP Server (threads)
UDP Socket (Datagram Sockets)

Connection less protocol
Thank You !!