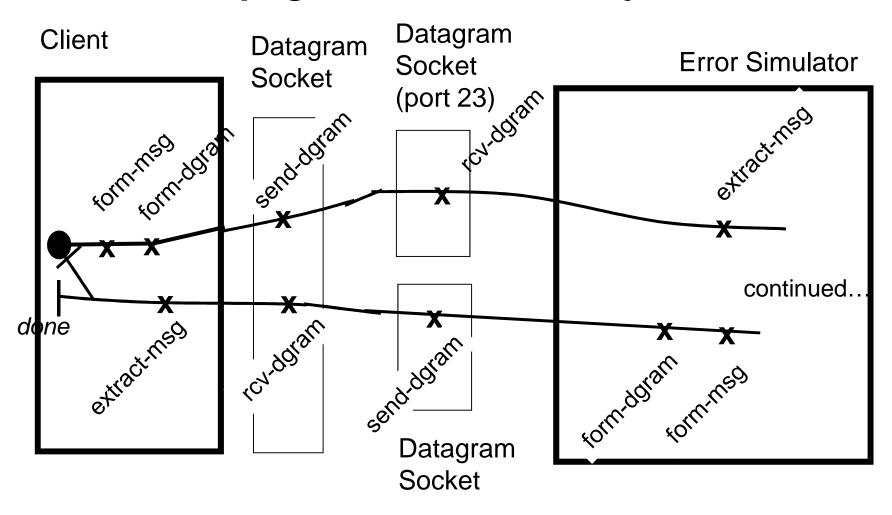
# SYSC 3303 Real-Time Concurrent Systems

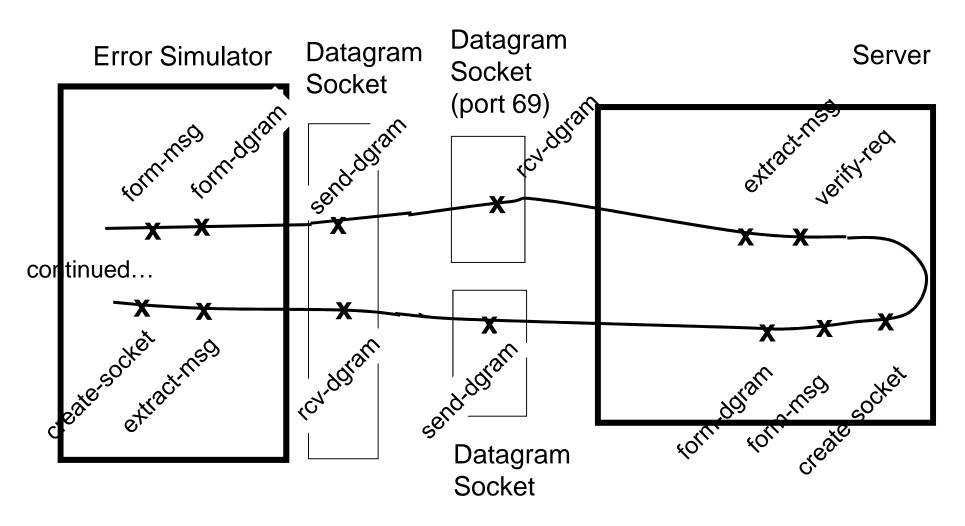
# **Assignment #1 Sample Solutions**

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- revised September 1<sup>st</sup>, 2016

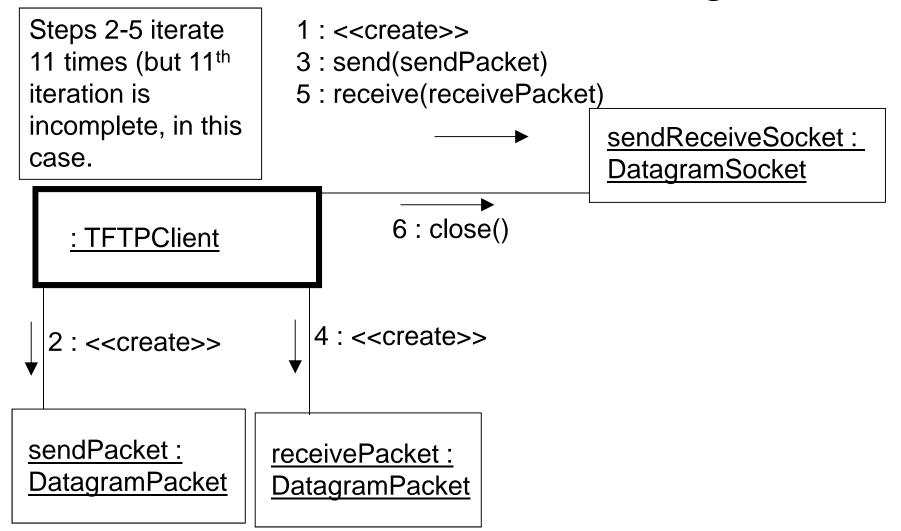
## Two page UCM for TFTP System



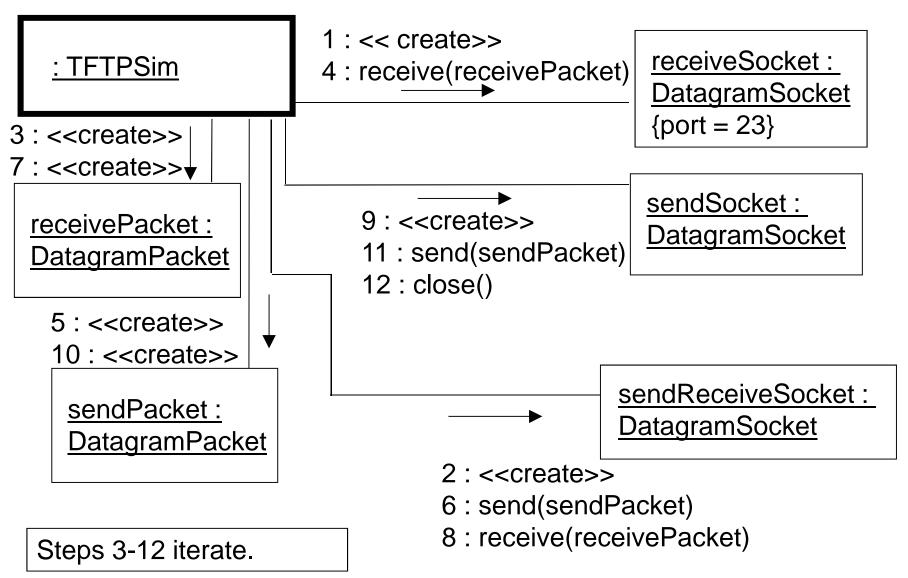
## Page 2



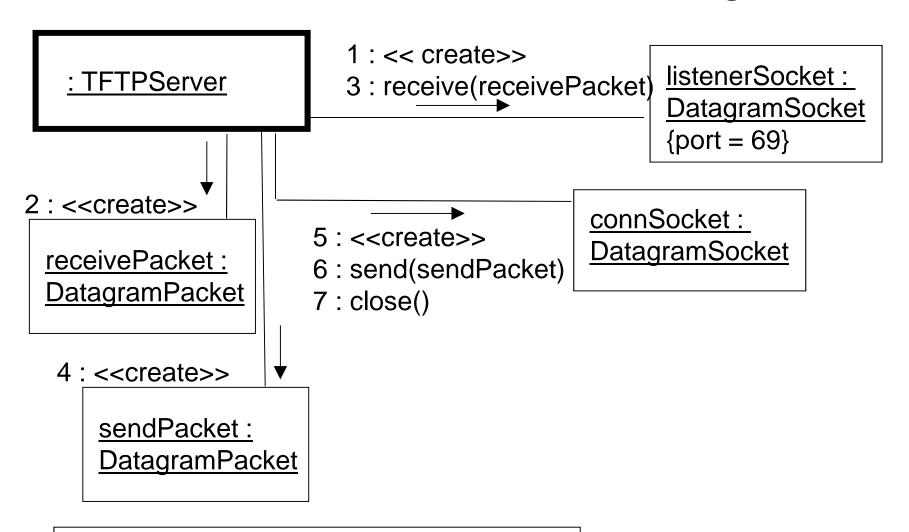
## TFTP Client Collaboration Diagram



# TFTP Simulator Collaboration Diagram



# TFTP Server Collaboration Diagram



Steps 2-7 iterate; with server throwing an uncaught exception, if the received packet is invalid.

# TFTP Class Diagram (p.1 of 3)

### **TFTPClient**

- sendPacket : DatagramPacket
- receivePacket : DatagramPacket
- sendReceiveSocket : DatagramSocket
- + sendAndReceive(void) : void

# TFTP Class Diagram (p.2 of 3)

#### **TFTPSim**

- sendPacket : DatagramPacket
- receivePacket : DatagramPacket
- sendSocket : DatagramSocket
- receiveSocket : DatagramSocket
- sendReceiveSocket : DatagramSocket
- + passOnTFTP(void) : void

# TFTP Class Diagram (p.3 of 3)

#### **TFTPServer**

- + readResp[0..3:ordered] : byte = { 0 3 0 1 }
- + writeResp[0..3:ordered] : byte = { 0 4 0 0 }
- sendPacket : DatagramPacket
- receivePacket : DatagramPacket
- sendSocket : DatagramSocket
- receiveSocket : DatagramSocket
- + receiveAndSendTFTP(void) : void