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## COMPUTER NETWORKS

### LAB BRIEF

The object of the lab is to design a network so that all clients on the network can send PING messages to each other. The network will be designed in Cisco Packet Tracer.

Submission will be made on CSMoodle. Students will save their project as a **.pkt** file in packet tracer and submit this file. Submission **cut off** is at the end of the lab class.

This lab will be conducted in an - informal - **exam** format and as such we will apply exam rules.

#### Exam Rules

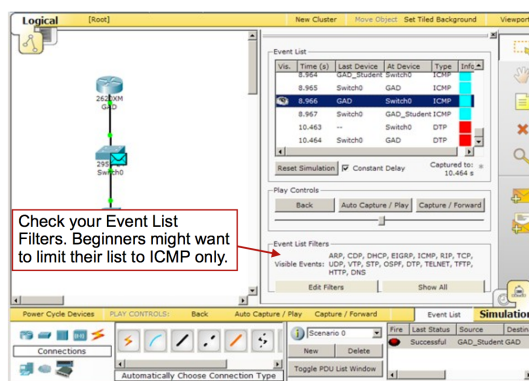
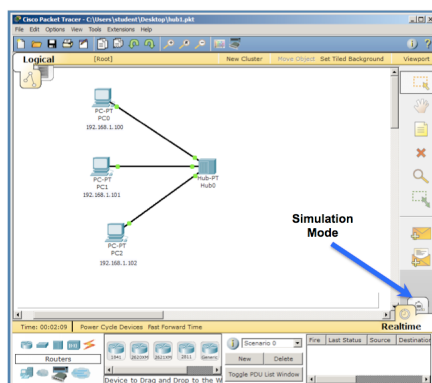
**NO** use of USB keys, Internet access or phones - If you are found to be using a USB key, Internet or phones for “any” reason you will receive a 0 grade and will be noted for further action.

### PACKET TRACER SETUP

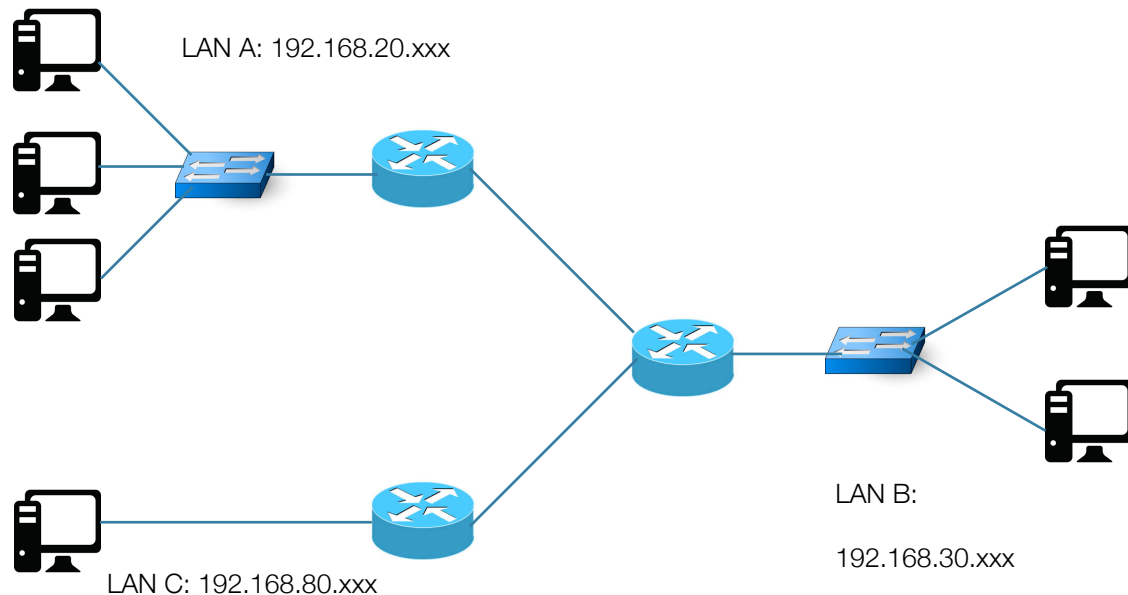
To help with debugging and progressive designing of the network I suggest you set your packet tracer to run in:

Simulation:-

Filters set to ICMP only!



### NETWORK DESIGN



The proposed Network design contains:

3 routers

2 switches

Lan A - 3 clients - IP address 192.168.20.xxx

Lab B - 2 clients - IP address 192.168.30.xxx

Lan C - 1 client - IP address 192.168.80.xxx

Each client in the network should be able to send a PING message to every other client in the network.

### Marking

A - Correct use of devices and connections

B - Correct IP addresses on all interfaces

C - All LAN A clients can send a message to All LAN A clients

D - Full communication between all devices

### Tip:

- 1) Create LAN A - make sure each client on LAN A can send messages to each other.
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- 2) Add LAN B - make sure all clients on LAN B can send messages to each other.
  - 3) Make sure clients on LAN A and LAN B can communicate.
  - 4) Add LAN C - configure communications between all LANs.