



# World University of Bangladesh

Course Title : Data Communications and Networking Lab  
Code : CSE 902

## Assignment

### Submitted By

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### Question 1.

#### Description

Calculate and design the network of the following terms for given IP address 192.168.0.0/25, 192.168.0.0/25, 192.168.0.0/26, 192.168.0.0/27, 192.168.0.0/29, 172.16.0.0/20, 172.16.0.0/21, 172.16.0.0/24, 10.0.0.0/12, 10.0.0.0/16, and 10.0.0.0/24,

- I. Class of IP address
- II. Subnet Mask of given IP
- III. Block size
- IV. Total Number of usable hosts.
- V. Total Number of network
- VI. Network address and broadcast address(if number of network is more than 16, shows first two and last two network and broadcast address consequently)

Answer.

IP address	Class	Subnetmask	Block_size	Usable_hosts	total_number_of_network	network_and_broadcast_address
192.168.0.0/25,	C	255.255.255.128	128	126	128	192.168.0.0-192.168.0.127
192.168.0.0/25,	C	255.255.255.128	128	126	128	192.168.0.0-192.168.0.127
192.168.0.0/26,	C	255.255.255.192	64	62	64	192.168.0.0-192.168.0.63
192.168.0.0/27,	C	255.255.255.224	32	30	32	192.168.0.0-192.168.0.31
192.168.0.0/29,	C	255.255.255.248	8	6	8	192.168.0.0-192.168.0.7
172.16.0.0/20,	B	255.255.240.0	128	126	128	172.16.0.0-172.16.15.255
172.16.0.0/21,	B	255.255.248.0	2048	2046	2048	172.16.0.0-172.16.7.255
172.16.0.0/24,	B	255.255.255.0	256	254	256	172.16.0.0-172.16.0.255
10.0.0.0/12,	A	255.240.0.0	1048576	1048574	1048576	10.0.0.0-10.15.255.255
10.0.0.0/16, and	A	255.255.0.0	65536	65534	65536	10.0.0.0-10.0.255.255
10.0.0.0/24,	A	255.255.255.0	256		256	10.0.0.0-10.0.0.255

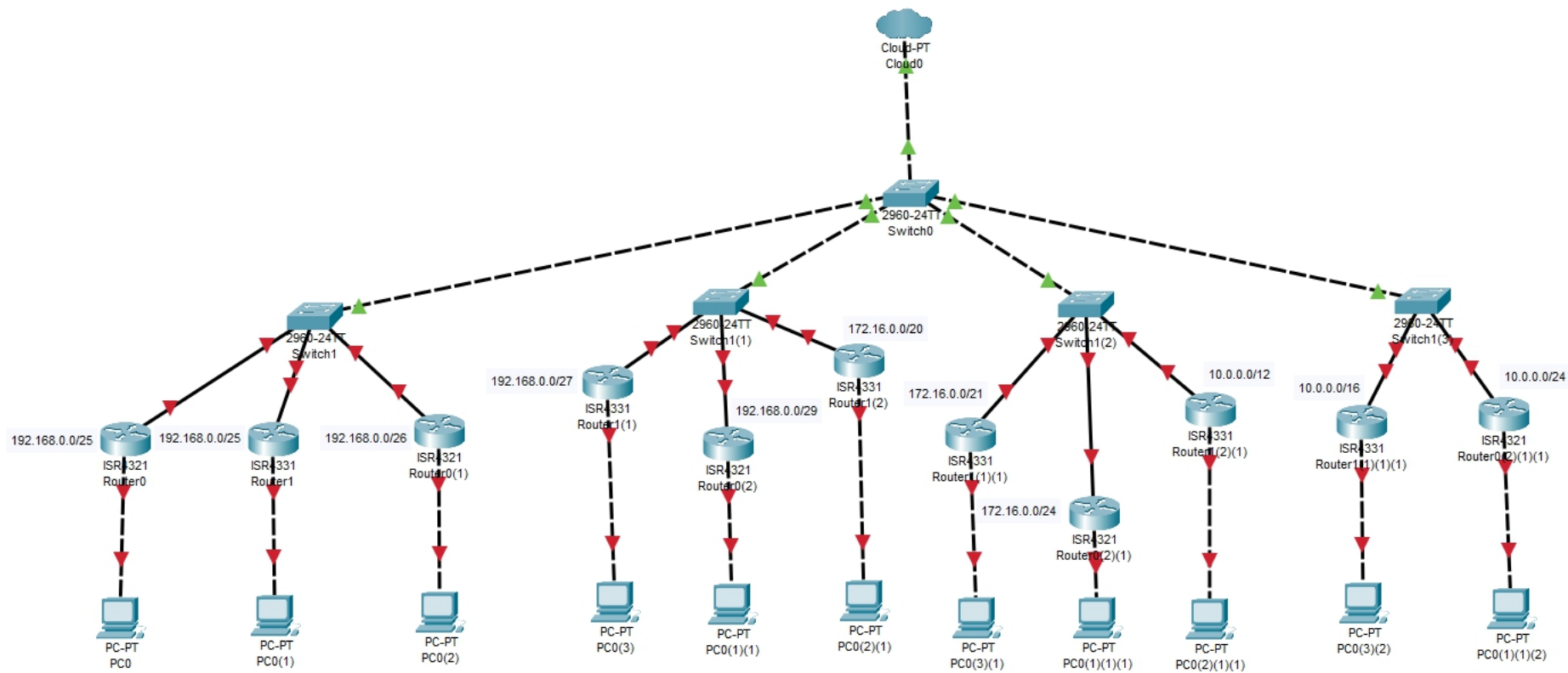


Figure : Cisco packet tracer network diagram