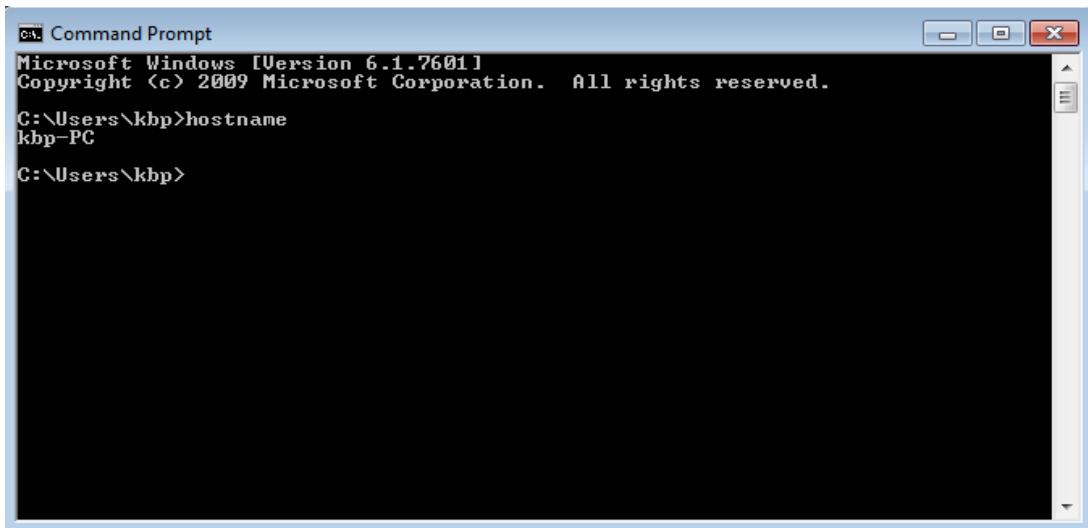


Practical No-2

hostname

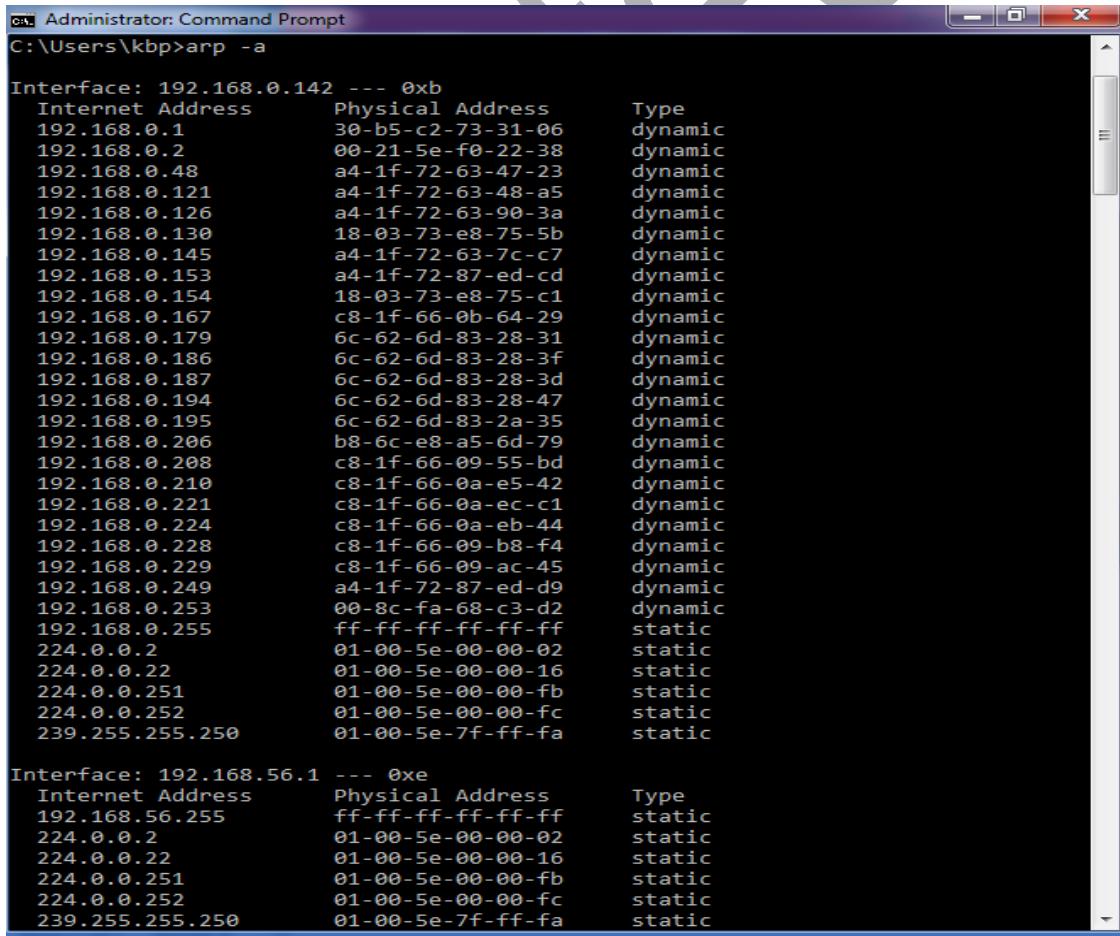


```
cmd Command Prompt
Microsoft Windows [Version 6.1.7601]
Copyright <c> 2009 Microsoft Corporation. All rights reserved.

C:\Users\kbp>hostname
kbp-PC

C:\Users\kbp>
```

arp -a

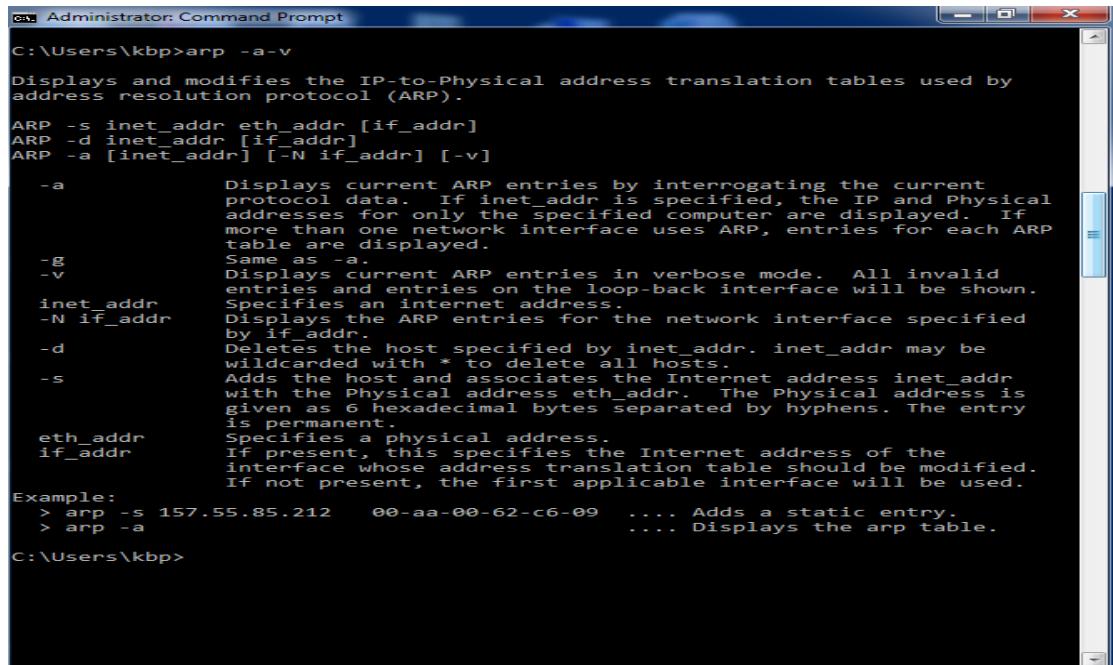


```
Administrator: Command Prompt
C:\Users\kbp>arp -a

Interface: 192.168.0.142 --- 0xb
 Internet Address      Physical Address      Type
 192.168.0.1            30-b5-c2-73-31-06    dynamic
 192.168.0.2            00-21-5e-f0-22-38    dynamic
 192.168.0.48           a4-1f-72-63-47-23   dynamic
 192.168.0.121          a4-1f-72-63-48-a5   dynamic
 192.168.0.126          a4-1f-72-63-90-3a   dynamic
 192.168.0.130          18-03-73-e8-75-5b   dynamic
 192.168.0.145          a4-1f-72-63-7c-c7   dynamic
 192.168.0.153          a4-1f-72-87-ed-cd   dynamic
 192.168.0.154          18-03-73-e8-75-c1   dynamic
 192.168.0.167          c8-1f-66-0b-64-29   dynamic
 192.168.0.179          6c-62-6d-83-28-31   dynamic
 192.168.0.186          6c-62-6d-83-28-3f   dynamic
 192.168.0.187          6c-62-6d-83-28-3d   dynamic
 192.168.0.194          6c-62-6d-83-28-47   dynamic
 192.168.0.195          6c-62-6d-83-2a-35   dynamic
 192.168.0.206          b8-6c-e8-a5-6d-79   dynamic
 192.168.0.208          c8-1f-66-09-55-bd   dynamic
 192.168.0.210          c8-1f-66-0a-e5-42   dynamic
 192.168.0.221          c8-1f-66-0a-ec-c1   dynamic
 192.168.0.224          c8-1f-66-0a-eb-44   dynamic
 192.168.0.228          c8-1f-66-09-b8-f4   dynamic
 192.168.0.229          c8-1f-66-09-ac-45   dynamic
 192.168.0.249          a4-1f-72-87-ed-d9   dynamic
 192.168.0.253          00-8c-fa-68-c3-d2   dynamic
 192.168.0.255          ff-ff-ff-ff-ff-ff   static
 224.0.0.2               01-00-5e-00-00-02   static
 224.0.0.22              01-00-5e-00-00-16   static
 224.0.0.251             01-00-5e-00-00-fb   static
 224.0.0.252             01-00-5e-00-00-fc   static
 239.255.255.250        01-00-5e-7f-ff-fa   static

Interface: 192.168.56.1 --- 0xe
 Internet Address      Physical Address      Type
 192.168.56.255         ff-ff-ff-ff-ff-ff   static
 224.0.0.2               01-00-5e-00-00-02   static
 224.0.0.22              01-00-5e-00-00-16   static
 224.0.0.251             01-00-5e-00-00-fb   static
 224.0.0.252             01-00-5e-00-00-fc   static
 239.255.255.250        01-00-5e-7f-ff-fa   static
```

arp -a -v



```
C:\> Administrator: Command Prompt
C:\Users\kbp>arp -a-v
Displays and modifies the IP-to-Physical address translation tables used by
address resolution protocol (ARP).

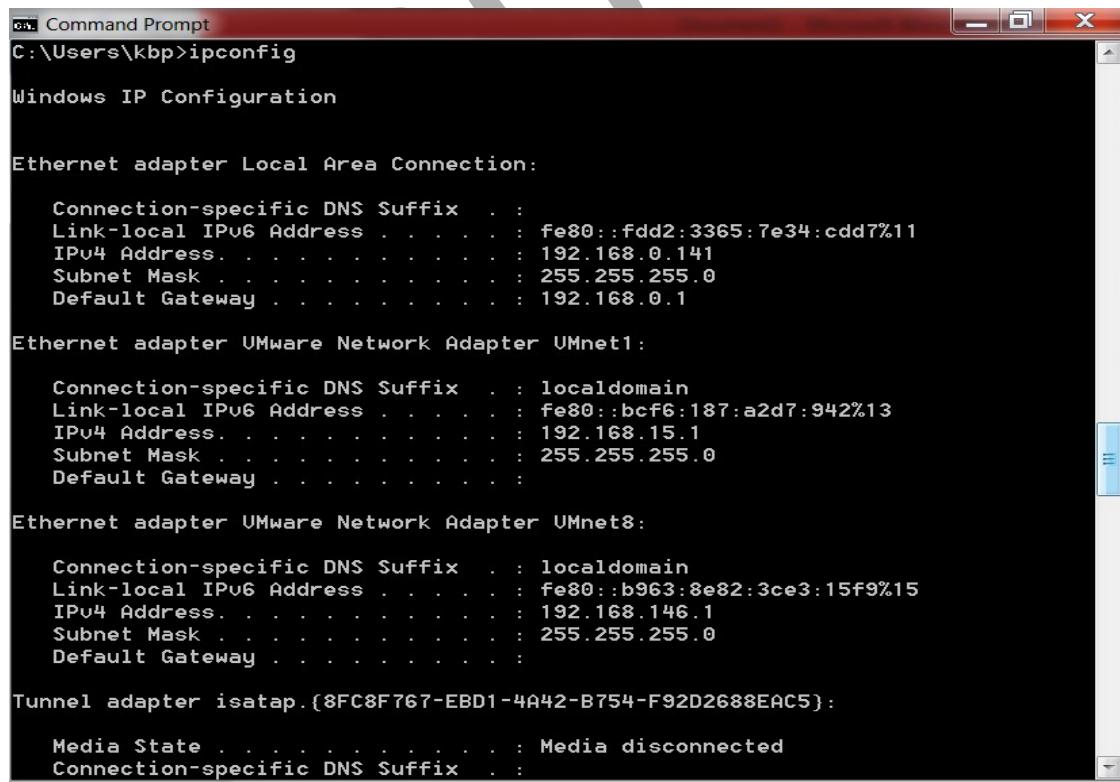
ARP -s inet_addr eth_addr [if_addr]
ARP -d inet_addr [if_addr]
ARP -a [inet_addr] [-N if_addr] [-v]

-a          Displays current ARP entries by interrogating the current
           protocol data. If inet_addr is specified, the IP and Physical
           addresses for only the specified computer are displayed. If
           more than one network interface uses ARP, entries for each ARP
           table are displayed.
-g          Same as -a.
-v          Displays current ARP entries in verbose mode. All invalid
           entries and entries on the loop-back interface will be shown.
inet_addr   Specifies an internet address.
-N if_addr   Displays the ARP entries for the network interface specified
           by if_addr.
-d          Deletes the host specified by inet_addr. inet_addr may be
           wildcarded with * to delete all hosts.
-s          Adds the host and associates the Internet address inet_addr
           with the Physical address eth_addr. The Physical address is
           given as 6 hexadecimal bytes separated by hyphens. The entry
           is permanent.
eth_addr    Specifies a physical address.
if_addr     If present, this specifies the Internet address of the
           interface whose address translation table should be modified.
           If not present, the first applicable interface will be used.

Example:
> arp -s 157.55.85.212 00-aa-00-62-c6-09 .... Adds a static entry.
> arp -a          .... Displays the arp table.

C:\Users\kbp>
```

ipconfig



```
C:\> Command Prompt
C:\Users\kbp>ipconfig
Windows IP Configuration

Ethernet adapter Local Area Connection:

Connection-specific DNS Suffix . . . . . : fe80::fdd2:3365:7e34:cdd7%11
Link-local IPv6 Address . . . . . : fe80::fdd2:3365:7e34:cdd7%11
IPv4 Address . . . . . : 192.168.0.141
Subnet Mask . . . . . : 255.255.255.0
Default Gateway . . . . . : 192.168.0.1

Ethernet adapter VMware Network Adapter VMnet1:

Connection-specific DNS Suffix . . . . . : localdomain
Link-local IPv6 Address . . . . . : fe80::bcf6:187:a2d7:942%13
IPv4 Address . . . . . : 192.168.15.1
Subnet Mask . . . . . : 255.255.255.0
Default Gateway . . . . . :

Ethernet adapter VMware Network Adapter VMnet8:

Connection-specific DNS Suffix . . . . . : localdomain
Link-local IPv6 Address . . . . . : fe80::b963:8e82:3ce3:15f9%15
IPv4 Address . . . . . : 192.168.146.1
Subnet Mask . . . . . : 255.255.255.0
Default Gateway . . . . . :

Tunnel adapter isatap.{8FC8F767-EBD1-4A42-B754-F92D2688EAC5}:

Media State . . . . . : Media disconnected
Connection-specific DNS Suffix . . . . . :
```

ipconfig /release



```
Administrator: Command Prompt
C:\Users\kbp>ipconfig /release
Windows IP Configuration

Ethernet adapter Local Area Connection:
  Connection-specific DNS Suffix . .
  Link-local IPv6 Address . . . . . : fe80::d39:a2b2:b904:7071%11
  IPv4 Address . . . . . : 192.168.0.142
  Subnet Mask . . . . . : 255.255.255.0
  Default Gateway . . . . . : 192.168.0.1

Ethernet adapter VirtualBox Host-Only Network:
  Connection-specific DNS Suffix . .
  Link-local IPv6 Address . . . . . : fe80::71af:5323:b6e:fa49%14
  IPv4 Address . . . . . : 192.168.56.1
  Subnet Mask . . . . . : 255.255.255.0
  Default Gateway . . . . . :

Ethernet adapter VMware Network Adapter VMnet1:
  Connection-specific DNS Suffix . .
  Link-local IPv6 Address . . . . . : fe80::165:c535:aa84:fcc9%17
  Default Gateway . . . . . :

Ethernet adapter VMware Network Adapter VMnet8:
  Connection-specific DNS Suffix . .
  Link-local IPv6 Address . . . . . : fe80::c954:7610:8c1a:9ba1%18
  Default Gateway . . . . . :

Tunnel adapter isatap.localdomain:
  Media State . . . . . : Media disconnected
  Connection-specific DNS Suffix . .

Tunnel adapter Local Area Connection* 9:
  Media State . . . . . : Media disconnected
  Connection-specific DNS Suffix . .
```

ipconfig /renew

```
C:\> Administrator: Command Prompt
C:\Users\kbp>ipconfig /renew
Windows IP Configuration

Ethernet adapter Local Area Connection:
  Connection-specific DNS Suffix . :
  Link-local IPv6 Address . . . . . : fe80::d39:a2b2:b904:7071%11
  IPv4 Address . . . . . : 192.168.0.142
  Subnet Mask . . . . . : 255.255.255.0
  Default Gateway . . . . . : 192.168.0.1

Ethernet adapter VirtualBox Host-Only Network:
  Connection-specific DNS Suffix . :
  Link-local IPv6 Address . . . . . : fe80::71af:5323:b6e:fa49%14
  IPv4 Address . . . . . : 192.168.56.1
  Subnet Mask . . . . . : 255.255.255.0
  Default Gateway . . . . . :

Ethernet adapter VMware Network Adapter VMnet1:
  Connection-specific DNS Suffix . : localdomain
  Link-local IPv6 Address . . . . . : fe80::165:c535:aa84:fef9%17
  IPv4 Address . . . . . : 192.168.109.1
  Subnet Mask . . . . . : 255.255.255.0
  Default Gateway . . . . . :

Ethernet adapter VMware Network Adapter VMnet8:
  Connection-specific DNS Suffix . :
  Link-local IPv6 Address . . . . . : fe80::c954:7610:8c1a:9ba1%18
  IPv4 Address . . . . . : 192.168.204.1
  Subnet Mask . . . . . : 255.255.255.0
  Default Gateway . . . . . :

Tunnel adapter Local Area Connection* 9:
  Media State . . . . . : Media disconnected
  Connection-specific DNS Suffix . :

Tunnel adapter isatap.{E53DBC53-9704-4064-A89E-C601E0C57DC9}:
  Media State . . . . . : Media disconnected
  Connection-specific DNS Suffix . :

Tunnel adapter isatap.{4065F4A5-B7DA-4F81-8D7C-C987728E8ABE}:
```

netstat -a

```
C:\> Administrator: Command Prompt  
C:\Users\kbp>netstat -a  
  
Active Connections  
  
Proto Local Address Foreign Address State  
TCP 0.0.0.0:135 kbp-PC:0 LISTENING  
TCP 0.0.0.0:445 kbp-PC:0 LISTENING  
TCP 0.0.0.0:902 kbp-PC:0 LISTENING  
TCP 0.0.0.0:912 kbp-PC:0 LISTENING  
TCP 0.0.0.0:1025 kbp-PC:0 LISTENING  
TCP 0.0.0.0:1026 kbp-PC:0 LISTENING  
TCP 0.0.0.0:1027 kbp-PC:0 LISTENING  
TCP 0.0.0.0:1028 kbp-PC:0 LISTENING  
TCP 0.0.0.0:1031 kbp-PC:0 LISTENING  
TCP 0.0.0.0:1433 kbp-PC:0 LISTENING  
TCP 0.0.0.0:1947 kbp-PC:0 LISTENING  
TCP 0.0.0.0:2383 kbp-PC:0 LISTENING  
TCP 0.0.0.0:9007 kbp-PC:0 LISTENING  
TCP 127.0.0.1:1434 kbp-PC:0 LISTENING  
TCP 127.0.0.1:12344 kbp-PC:0 LISTENING  
TCP 169.254.155.161:139 kbp-PC:0 LISTENING  
TCP 169.254.252.249:139 kbp-PC:0 LISTENING  
TCP 192.168.0.142:139 kbp-PC:0 LISTENING  
TCP 192.168.56.1:139 kbp-PC:0 LISTENING  
TCP [::]:135 kbp-PC:0 LISTENING  
TCP [::]:445 kbp-PC:0 LISTENING  
TCP [::]:1025 kbp-PC:0 LISTENING  
TCP [::]:1026 kbp-PC:0 LISTENING  
TCP [::]:1027 kbp-PC:0 LISTENING  
TCP [::]:1028 kbp-PC:0 LISTENING  
TCP [::]:1031 kbp-PC:0 LISTENING  
TCP [::]:1433 kbp-PC:0 LISTENING  
TCP [::]:1947 kbp-PC:0 LISTENING  
TCP [::]:2383 kbp-PC:0 LISTENING  
TCP [::]:9007 kbp-PC:0 LISTENING  
TCP [::]:1434 kbp-PC:0 LISTENING  
UDP 0.0.0.0:500 *:*  
UDP 0.0.0.0:1947 *:*  
UDP 0.0.0.0:4500 *:*  
UDP 0.0.0.0:5355 *:*  
UDP 0.0.0.0:23838 *:*  
UDP 0.0.0.0:51515 *:*
```

netstat -R

```
Administrator: Command Prompt
C:\Users\kbp>netstat -R
=====
Interface List
11...18 03 73 e8 7a 9f ....Intel(R) 82579LM Gigabit Network Connection
14...08 00 27 00 58 48 ....VirtualBox Host-Only Ethernet Adapter
17...00 50 56 c0 00 01 ....VMware Virtual Ethernet Adapter for VMnet1
18...00 50 56 c0 00 08 ....VMware Virtual Ethernet Adapter for VMnet8
1.....Software Loopback Interface 1
12...00 00 00 00 00 00 e0 Microsoft ISATAP Adapter
10...00 00 00 00 00 00 e0 Microsoft Teredo Tunneling Adapter
15...00 00 00 00 00 00 e0 Microsoft ISATAP Adapter #2
19...00 00 00 00 00 00 e0 Microsoft ISATAP Adapter #3
20...00 00 00 00 00 00 e0 Microsoft ISATAP Adapter #4
=====

IPv4 Route Table
=====
Active Routes:
Network Destination      Netmask        Gateway        Interface Metric
          0.0.0.0          0.0.0.0    192.168.0.1    192.168.0.142    276
         127.0.0.0        255.0.0.0   On-link        127.0.0.1       306
         127.0.0.1        255.255.255.255  On-link        127.0.0.1       306
 127.255.255.255        255.255.255.255  On-link        127.0.0.1       306
        169.254.0.0        255.255.0.0   On-link      169.254.155.161    276
        169.254.0.0        255.255.0.0   On-link      169.254.252.249    276
 169.254.155.161        255.255.255.255  On-link      169.254.155.161    276
 169.254.252.249        255.255.255.255  On-link      169.254.252.249    276
 169.254.255.255        255.255.255.255  On-link      169.254.155.161    276
 169.254.255.255        255.255.255.255  On-link      169.254.252.249    276
        192.168.0.0        255.255.255.0   On-link      192.168.0.142    276
 192.168.0.142        255.255.255.255  On-link      192.168.0.142    276
 192.168.0.255        255.255.255.255  On-link      192.168.0.142    276
        192.168.56.0        255.255.255.0   On-link      192.168.56.1       276
 192.168.56.1        255.255.255.255  On-link      192.168.56.1       276
 192.168.56.255        255.255.255.255  On-link      192.168.56.1       276
        224.0.0.0          240.0.0.0   On-link        127.0.0.1       306
        224.0.0.0          240.0.0.0   On-link      192.168.56.1       276
        224.0.0.0          240.0.0.0   On-link      192.168.0.142    276
        224.0.0.0          240.0.0.0   On-link      169.254.252.249    276
        224.0.0.0          240.0.0.0   On-link      169.254.155.161    276
 255.255.255.255        255.255.255.255  On-link        127.0.0.1       306
 255.255.255.255        255.255.255.255  On-link      192.168.56.1       276
 255.255.255.255        255.255.255.255  On-link      192.168.0.142    276
 255.255.255.255        255.255.255.255  On-link      169.254.252.249    276
 255.255.255.255        255.255.255.255  On-link      169.254.155.161    276
=====

Persistent Routes:
Network Address      Netmask  Gateway Address Metric
          0.0.0.0          0.0.0.0    192.168.0.1 Default
=====

IPv6 Route Table
=====
Active Routes:
If Metric Network Destination      Gateway
 1     306 ::1/128      On-link
 14    276 fe80::/64      On-link
 11    276 fe80::/64      On-link
```

netstat -e

```
None

C:\Users\kbp>netstat -e
Interface Statistics

Received          Sent
Bytes            86455954    11171063
Unicast packets   72658      69430
Non-unicast packets 269768    28724
Discards          0          0
Errors            0          0
Unknown protocols 0          0

C:\Users\kbp>
C:\Users\kbp>
```

Ping google.com

```
Administrator: Command Prompt
C:\Users\kbp>ping google.com

Pinging google.com [216.58.220.174] with 32 bytes of data:
Reply from 216.58.220.174: bytes=32 time=3ms TTL=58
Reply from 216.58.220.174: bytes=32 time=10ms TTL=58
Reply from 216.58.220.174: bytes=32 time=2ms TTL=58
Reply from 216.58.220.174: bytes=32 time=2ms TTL=58

Ping statistics for 216.58.220.174:
  Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
  Approximate round trip times in milli-seconds:
    Minimum = 2ms, Maximum = 10ms, Average = 4ms

C:\Users\kbp>
```

ping -n 6 192.168.0.141

Administrator: Command Prompt

```
C:\Users\kbp>ping -n 6 192.168.0.141

Pinging 192.168.0.141 with 32 bytes of data:
Reply from 192.168.0.141: bytes=32 time<1ms TTL=128

Ping statistics for 192.168.0.141:
    Packets: Sent = 6, Received = 6, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\Users\kbp>
```

munotes.in

ping -l 4 192.168.0.141

munotes.in

```
Administrator: Command Prompt  
C:\Users\kbp>ping -l 4 192.168.0.141  
Pinging 192.168.0.141 with 4 bytes of data:  
Reply from 192.168.0.141: bytes=4 time<1ms TTL=128  
Ping statistics for 192.168.0.141:  
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),  
    Approximate round trip times in milli-seconds:  
        Minimum = 0ms, Maximum = 0ms, Average = 0ms  
C:\Users\kbp>
```

munotes.in

ping -f 192.168.0.141

munotes.in

```
Administrator: Command Prompt  
C:\Users\kbp>ping -f 192.168.0.141  
  
Pinging 192.168.0.141 with 32 bytes of data:  
Reply from 192.168.0.141: bytes=32 time=2ms TTL=128  
Reply from 192.168.0.141: bytes=32 time<1ms TTL=128  
Reply from 192.168.0.141: bytes=32 time<1ms TTL=128  
Reply from 192.168.0.141: bytes=32 time<1ms TTL=128  
  
Ping statistics for 192.168.0.141:  
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),  
    Approximate round trip times in milli-seconds:  
        Minimum = 0ms, Maximum = 2ms, Average = 0ms  
  
C:\Users\kbp>
```

munotes.in

```
ping -t 192.168.0.141
```



```
Administrator: Command Prompt  
C:\Users\kbp>ping -t 192.168.0.141  
Pinging 192.168.0.141 with 32 bytes of data:  
Reply from 192.168.0.141: bytes=32 time<1ms TTL=128  
Ping statistics for 192.168.0.141:  
    Packets: Sent = 11, Received = 11, Lost = 0 (0% loss),  
Approximate round trip times in milli-seconds:  
    Minimum = 0ms, Maximum = 0ms, Average = 0ms  
Control-C  
^C  
C:\Users\kbp>
```

route print

```
c:\> Administrator: Command Prompt
C:\Users\kbp>route print
=====
Interface List
11...18 03 73 e8 7a 9f ....Intel(R) 82579LM Gigabit Network Connection
14...08 00 27 00 58 48 ....VirtualBox Host-Only Ethernet Adapter
17...00 50 56 c0 00 01 ....VMware Virtual Ethernet Adapter for VMnet1
18...00 50 56 c0 00 08 ....VMware Virtual Ethernet Adapter for VMnets
1.....00 00 00 00 00 00 Software Loopback Interface 1
12...00 00 00 00 00 e0 Microsoft ISATAP Adapter
10...00 00 00 00 00 e0 Microsoft Teredo Tunneling Adapter
15...00 00 00 00 00 e0 Microsoft ISATAP Adapter #2
19...00 00 00 00 00 e0 Microsoft ISATAP Adapter #3
20...00 00 00 00 00 e0 Microsoft ISATAP Adapter #4
=====

IPv4 Route Table
=====
Active Routes:
Network Destination      Netmask        Gateway       Interface Metric
          0.0.0.0          0.0.0.0    192.168.0.1  192.168.0.142    276
         127.0.0.0        255.0.0.0   On-link        127.0.0.1     306
         127.0.0.1        255.255.255.255  On-link        127.0.0.1     306
 127.255.255.255        255.255.255.255  On-link        127.0.0.1     306
        169.254.0.0        255.255.0.0   On-link      169.254.155.161    276
        169.254.0.0        255.255.0.0   On-link      169.254.252.249    276
 169.254.155.161        255.255.255.255  On-link      169.254.155.161    276
 169.254.252.249        255.255.255.255  On-link      169.254.252.249    276
 169.254.255.255        255.255.255.255  On-link      169.254.155.161    276
 169.254.255.255        255.255.255.255  On-link      169.254.252.249    276
        192.168.0.0        255.255.255.0   On-link      192.168.0.142    276
 192.168.0.142        255.255.255.255  On-link      192.168.0.142    276
 192.168.0.255        255.255.255.255  On-link      192.168.0.142    276
        192.168.56.0        255.255.255.0   On-link      192.168.56.1     276
        192.168.56.1        255.255.255.255  On-link      192.168.56.1     276
 192.168.56.255        255.255.255.255  On-link      192.168.56.1     276
        224.0.0.0          240.0.0.0   On-link        127.0.0.1     306
        224.0.0.0          240.0.0.0   On-link      192.168.56.1     276
        224.0.0.0          240.0.0.0   On-link      192.168.0.142    276
        224.0.0.0          240.0.0.0   On-link      169.254.252.249    276
        224.0.0.0          240.0.0.0   On-link      169.254.155.161    276
 255.255.255.255        255.255.255.255  On-link        127.0.0.1     306
 255.255.255.255        255.255.255.255  On-link      192.168.56.1     276
 255.255.255.255        255.255.255.255  On-link      192.168.0.142    276
 255.255.255.255        255.255.255.255  On-link      169.254.252.249    276
 255.255.255.255        255.255.255.255  On-link      169.254.155.161    276
=====

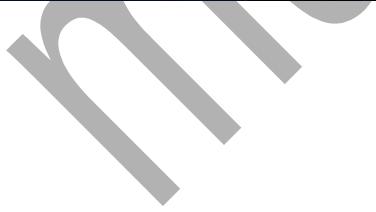
Persistent Routes:
Network Address      Netmask  Gateway Address Metric
          0.0.0.0          0.0.0.0    192.168.0.1 Default
=====

IPv6 Route Table
=====
Active Routes:
If Metric Network Destination      Gateway
  1     306 ::1/128            On-link
 14     276 fe80::/64          On-link
```

ping print 192*

```
C:\Users\kbp>route print 192*
=====
Interface List
11...18 03 73 e8 7a 9f ....Intel(R) 82579LM Gigabit Network Connection
14...08 00 27 00 58 48 ....VirtualBox Host-Only Ethernet Adapter
17...00 50 56 c0 00 01 ....VMware Virtual Ethernet Adapter for VMnet1
18...00 50 56 c0 00 08 ....VMware Virtual Ethernet Adapter for VMnet8
1.....00 00 00 00 00 00 Software Loopback Interface 1
12...00 00 00 00 00 00 e0 Microsoft ISATAP Adapter
10...00 00 00 00 00 00 e0 Microsoft Teredo Tunneling Adapter
15...00 00 00 00 00 00 e0 Microsoft ISATAP Adapter #2
19...00 00 00 00 00 00 e0 Microsoft ISATAP Adapter #3
20...00 00 00 00 00 00 e0 Microsoft ISATAP Adapter #4
=====
IPv4 Route Table
=====
Active Routes:
Network Destination      Netmask         Gateway       Interface Metric
      192.168.0.0    255.255.255.0   On-link        192.168.0.142    276
      192.168.0.142  255.255.255.255  On-link        192.168.0.142    276
      192.168.0.255  255.255.255.255  On-link        192.168.0.142    276
      192.168.56.0    255.255.255.0   On-link        192.168.56.1     276
      192.168.56.1    255.255.255.255  On-link        192.168.56.1     276
      192.168.56.255  255.255.255.255  On-link        192.168.56.1     276
=====
Persistent Routes:
  None
=====
IPv6 Route Table
=====
Active Routes:
  None
Persistent Routes:
  None
C:\Users\kbp>
```

tracert google.com

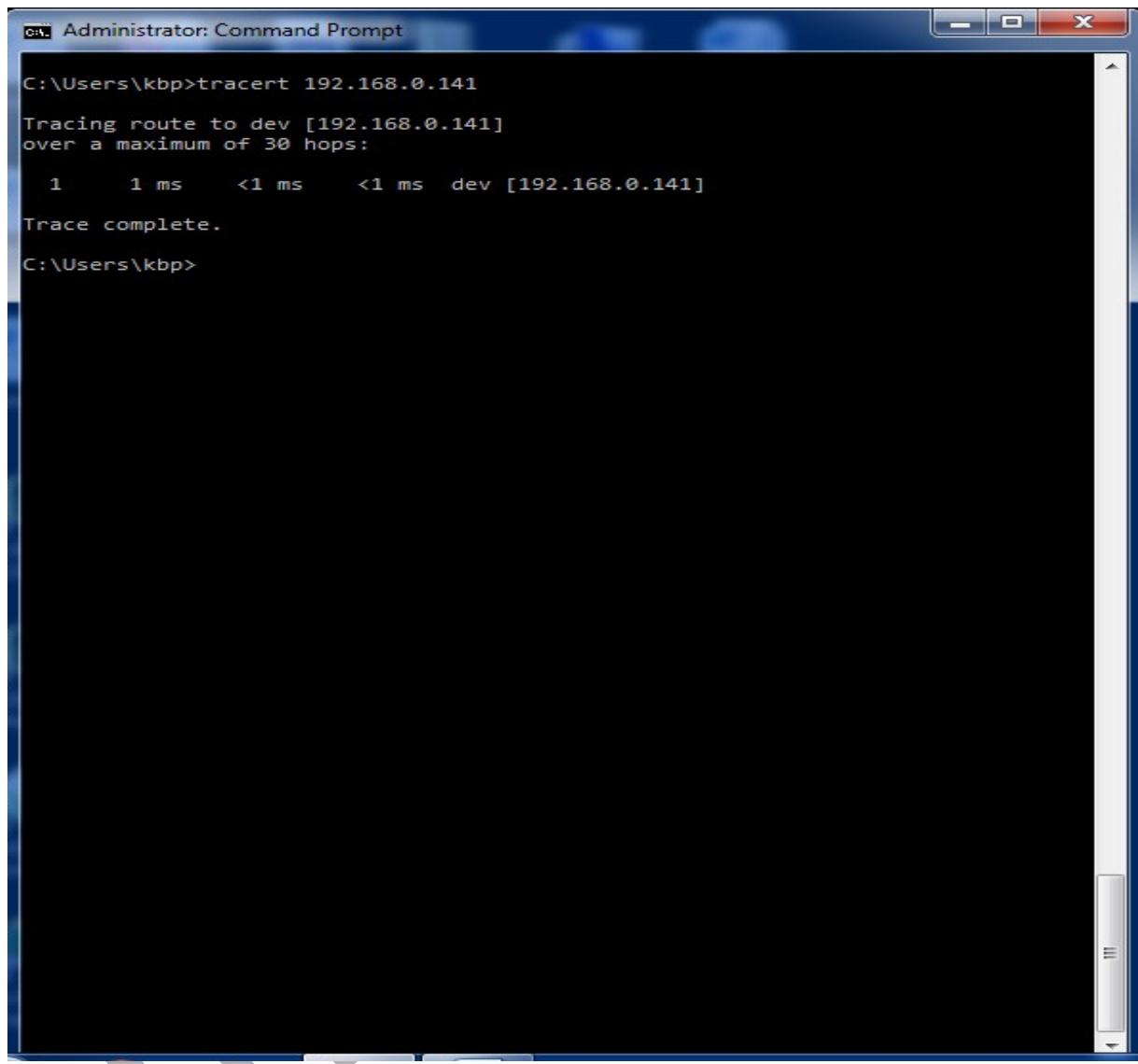


```
Administrator: Command Prompt
C:\Users\kbp>tracert google.com
Tracing route to google.com [216.58.220.14]
over a maximum of 30 hops:
 1  <1 ms    <1 ms    <1 ms  192.168.0.1
 2  1 ms    <1 ms    1 ms  138-37-87-183.mysipl.com [183.87.37.138]
 3  *        *        * Request timed out.
 4  3 ms    2 ms    2 ms  72.14.196.213
 5  2 ms    3 ms    2 ms  209.85.142.228
 6  2 ms    2 ms    3 ms  74.125.37.235
 7  2 ms   11 ms    2 ms  bom05s05-in-f14.1e100.net [216.58.220.14]

Trace complete.

C:\Users\kbp>
```

tracert 103.213.213.226



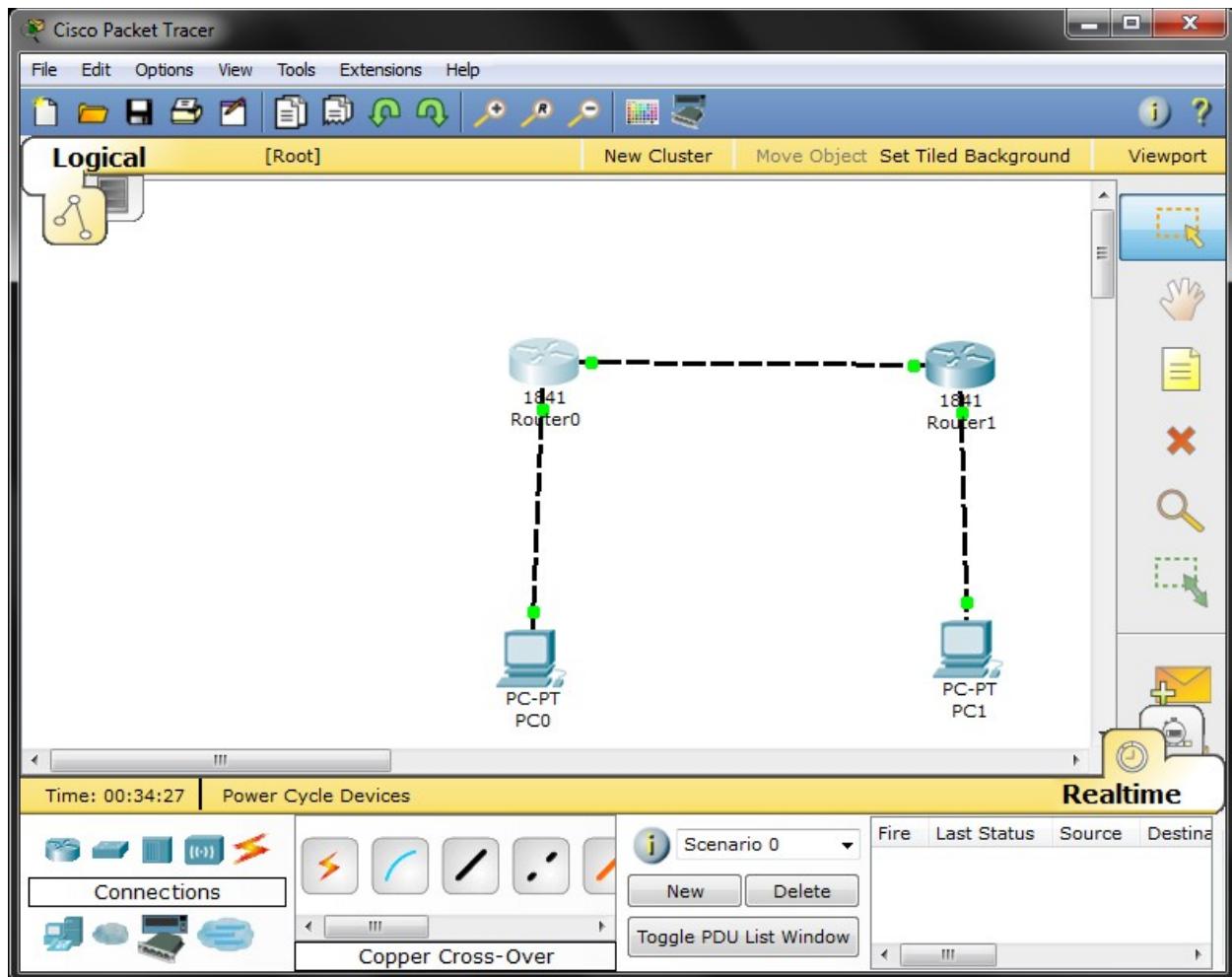
The screenshot shows a Windows Command Prompt window titled "Administrator: Command Prompt". The window is dark-themed. The command entered was "tracert 192.168.0.141". The output shows a single hop to a local interface named "dev [192.168.0.141]" with a latency of 1 ms. The trace is complete.

```
C:\Users\kbp>tracert 192.168.0.141
Tracing route to dev [192.168.0.141]
over a maximum of 30 hops:
  1       1 ms      <1 ms      <1 ms   dev [192.168.0.141]

Trace complete.

C:\Users\kbp>
```

Practical No-3



Router r0

Router>en

Router#config t

Enter configuration commands, one per line. End with CNTL/Z.

Router(config)#hostname r1

r1(config)#interface f0/0

r1(config-if)#ip address 10.0.0.1 255.0.0.0

r1(config-if)#no shut

%LINK-5-CHANGED: Interface FastEthernet0/0, changed state to up

r1(config-if)#exit

r1(config)#interface f0/1

r1(config-if)#ip address 20.0.0.1 255.0.0.0

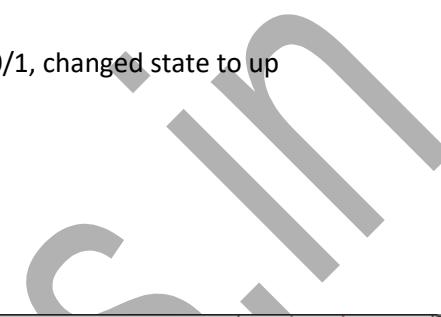
r1(config-if)#no shut

%LINK-5-CHANGED: Interface FastEthernet0/1, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/1, changed state to up

r1(config-if)#exit

r1(config)#



Router0

Physical Config CLI

IOS Command Line Interface

```
r1>en
r1#config t
Enter configuration commands, one per line. End with CNTL/Z.
r1(config)#ip route 30.0.0.0 255.0.0.0 10.0.0.2
r1(config)#+Z
r1#
%SYS-5-CONFIG_I: Configured from console by console
shoe ip route
^
% Invalid input detected at '^' marker.

r1#show ip route
Codes: C - connected, S - static, I - IGRP, R - RIP, M - mobile, B - BGP
      D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
      N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
      E1 - OSPF external type 1, E2 - OSPF external type 2, E - EGP
      i - IS-IS, L1 - IS-IS level-1, L2 - IS-IS level-2, ia - IS-IS inter area
      * - candidate default, U - per-user static route, o - ODR
      P - periodic downloaded static route

Gateway of last resort is not set

C    10.0.0.0/8 is directly connected, FastEthernet0/0
C    20.0.0.0/8 is directly connected, FastEthernet0/1
S    30.0.0.0/8 [1/0] via 10.0.0.2
r1#
```

Copy Paste

Router r1

Router>en

Router#config t

Enter configuration commands, one per line. End with CNTL/Z.

Router(config)#hostname r2

r2(config)#interface f0/0

r2(config-if)#ip address 10.0.0.2 255.0.0.0

r2(config-if)#no shut

%LINK-5-CHANGED: Interface FastEthernet0/0, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0, changed state to up

r2(config-if)#exit

r2(config)#interface f0/1

r2(config-if)#ip address 30.0.0.1 255.0.0.0

r2(config-if)#no shut

%LINK-5-CHANGED: Interface FastEthernet0/1, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/1, changed state to up

r2(config-if)#exit

Router1

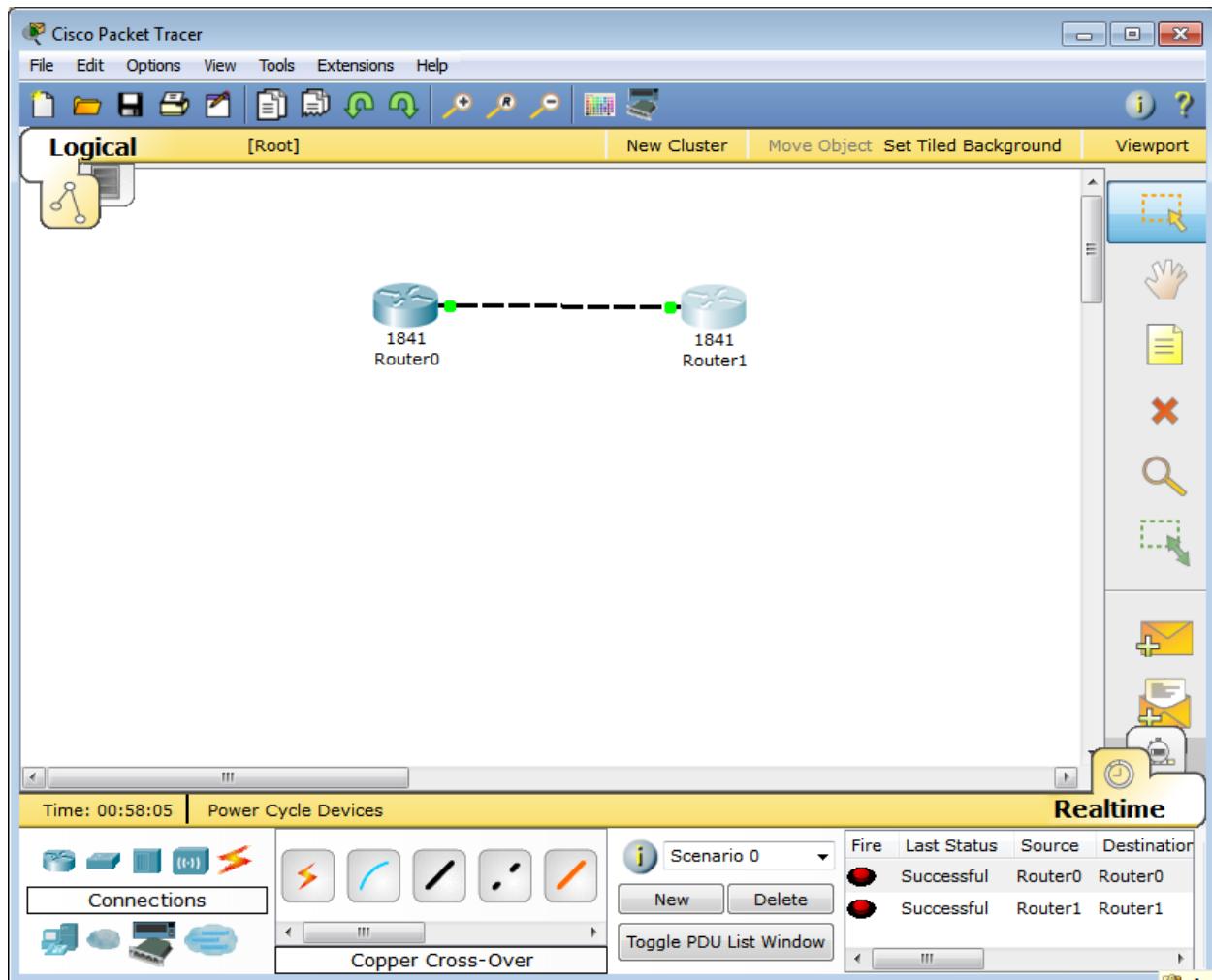
Physical Config CLI

IOS Command Line Interface

```
r2#  
r2#en  
r2#config t  
Enter configuration commands, one per line. End with CNTL/Z.  
r2(config)#ip route 20.0.0.0 255.0.0.0 10.0.0.1  
r2(config)#^Z  
r2#  
*SYS-5-CONFIG_I: Configured from console by console  
  
r2#show ip route  
Codes: C - connected, S - static, I - IGRP, R - RIP, M - mobile, B - BGP  
      D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area  
      N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2  
      E1 - OSPF external type 1, E2 - OSPF external type 2, E - EGP  
      i - IS-IS, L1 - IS-IS level-1, L2 - IS-IS level-2, ia - IS-IS inter area  
      * - candidate default, U - per-user static route, o - ODR  
      P - periodic downloaded static route  
  
Gateway of last resort is not set  
  
C    10.0.0.0/8 is directly connected, FastEthernet0/0  
S    20.0.0.0/8 [1/0] via 10.0.0.1  
C    30.0.0.0/8 is directly connected, FastEthernet0/1  
r2#
```

Copy Paste

Practical No-5 (OSPF)



Router 0

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```
Router>en  
Router#config t  
Enter configuration commands, one per line. End with CNTL/Z.  
Router(config)#hostname r1  
r1(config)#interface f0/0  
r1(config-if)#ip address 192.1.1.1 255.255.255.0  
r1(config-if)#no shut  
  
%LINK-5-CHANGED: Interface FastEthernet0/0, changed state to up  
r1(config-if)#exit  
r1(config)#router ospf 1  
r1(config-router)#network 192.1.1.1 0.0.0.255 area 0  
r1(config-router)#^Z  
r1#  
%SYS-5-CONFIG_I: Configured from console by console  
r1#show ip ospf neighbor  
r1#
```

Router0

Physical Config CLI

IOS Command Line Interface

```
r1>en
r1#config t
Enter configuration commands, one per line. End with CNTL/Z.
r1(config)#router ospf 1
r1(config-router)#network 192.1.1.1 0.0.0.255 area 0
r1(config-router)#{^Z
r1#
%SYS-5-CONFIG_I: Configured from console by console

r1#show ip ospf neighbor

Neighbor ID      Pri  State            Dead Time    Address          Interface
192.1.1.2        1    FULL/BDR       00:00:39    192.1.1.2      FastEthernet0/
0
r1#
```

Copy Paste

Router 1

```
Router>en
Router#config t
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#hostname r2
r2(config)#interface f0/0
r2(config-if)#ip address 192.1.1.2 255.255.255.0
r2(config-if)#no shut

%LINK-5-CHANGED: Interface FastEthernet0/0, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0, changed state to up

r2(config-if)#exit
r2(config)#router ospf 1
r2(config-router)#network 192.1.1.0 0.0.0.255 area 0
r2(config-router)#^Z
r2#
%SYS-5-CONFIG_I: Configured from console by console

r2#show
00:11:22: %OSPF-5-ADJCHG: Process 1, Nbr 192.1.1.1 on FastEthernet0/0 from LOADING to FULL, Loading Done

% Incomplete command.

r2#show ip ospf neighbor
```

Neighbor ID	Pri	State	Dead Time	Address	Interface
-------------	-----	-------	-----------	---------	-----------

192.1.1.1 1 FULL/DR 00:00:39 192.1.1.1 FastEthernet0/0

r2#

Router1

Physical Config CLI

IOS Command Line Interface

```
Router>en
Router#config t
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#hostname r2
r2(config)#interface f0/0
r2(config-if)#ip address 192.1.1.2 255.255.255.0
r2(config-if)#no shut

%LINK-5-CHANGED: Interface FastEthernet0/0, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0, changed state to up

r2(config-if)#exit
r2(config)#router ospf 1
r2(config-router)#network 192.1.1.0 0.0.0.255 area 0
r2(config-router)#^Z
r2#
%SYS-5-CONFIG_I: Configured from console by console

r2#show
00:11:22: %OSPF-5-ADJCHG: Process 1, Nbr 192.1.1.1 on FastEthernet0/0 from LOADING to FULL, Loading Done

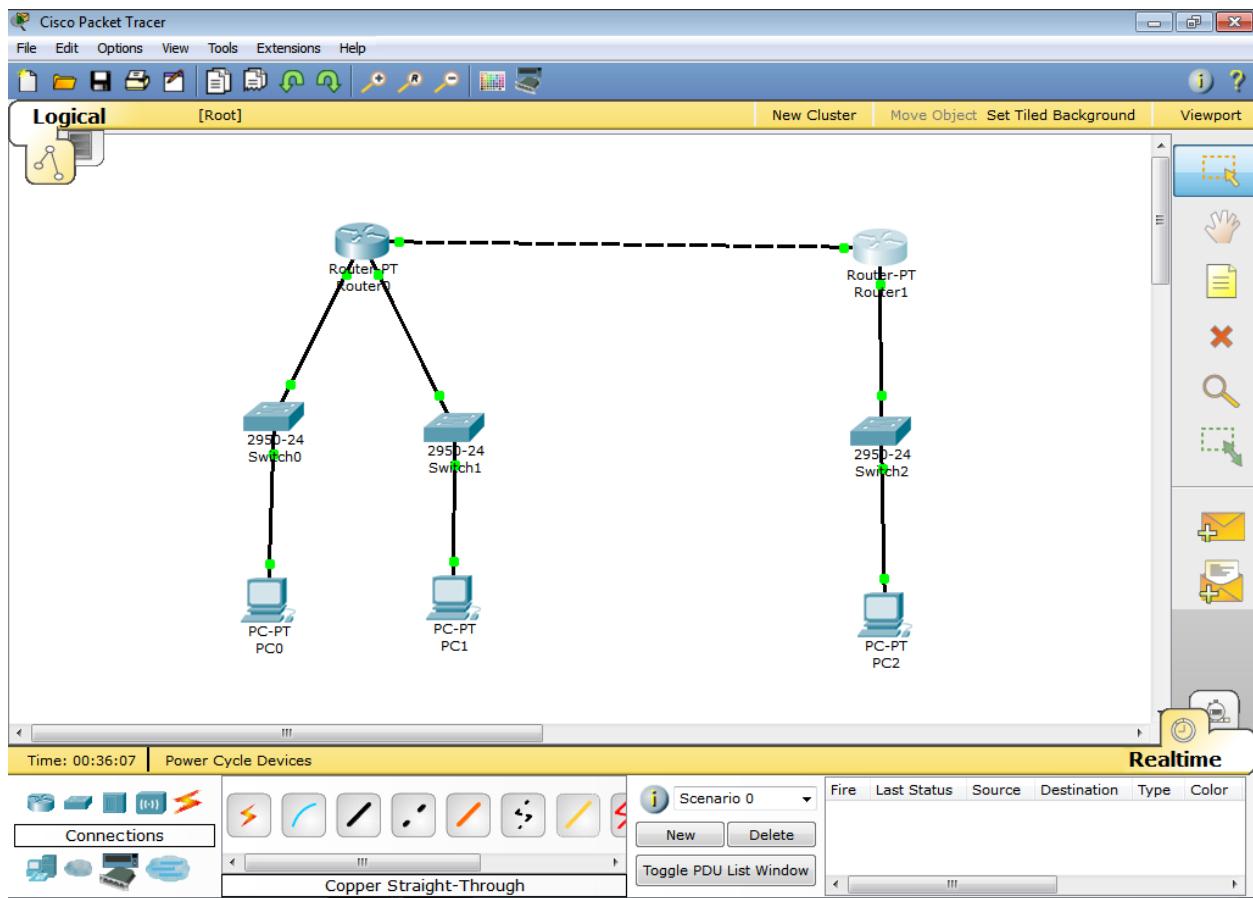
% Incomplete command.
r2#show ip ospf neighbor

Neighbor ID      Pri      State            Dead Time    Address          Interface
192.1.1.1        1      FULL/DR          00:00:39    192.1.1.1      FastEthernet0/
0
r2#
```

Copy Paste

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Practical No:-4



Configure Router R0:

Router>en

Router#config t

Enter configuration commands, one per line. End with CNTL/Z.

Router(config)#interface f0/0

Router(config-if)#ip address 10.0.0.1 255.0.0.0

Router(config-if)#no shut

%LINK-5-CHANGED: Interface FastEthernet0/0, changed state to up

Router(config-if)#exit

Router(config)#interface f1/0

Router(config-if)#ip address 20.0.0.1 255.0.0.0

Router(config-if)#no shut

%LINK-5-CHANGED: Interface FastEthernet1/0, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface
FastEthernet1/0, changed state to up

Router(config-if)#exit

Router(config)#interface eth6/0

Router(config-if)#ip address 30.0.0.1 255.0.0.0

Router(config-if)#no shut

%LINK-5-CHANGED: Interface Ethernet6/0, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface Ethernet6/0,
changed state to up

Router(config-if)#exit

Configure Router R1 :

Router>en

Router#config t

Enter configuration commands, one per line. End with CNTL/Z.

Router(config)#interface f0/0

Router(config-if)#ip address 10.0.0.2 255.0.0.0

Router(config-if)#no shut

%LINK-5-CHANGED: Interface FastEthernet0/0, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface
FastEthernet0/0, changed state to up

Router(config-if)#exit

Router(config)#interface f1/0

Router(config-if)#ip address 40.0.0.1 255.0.0.0

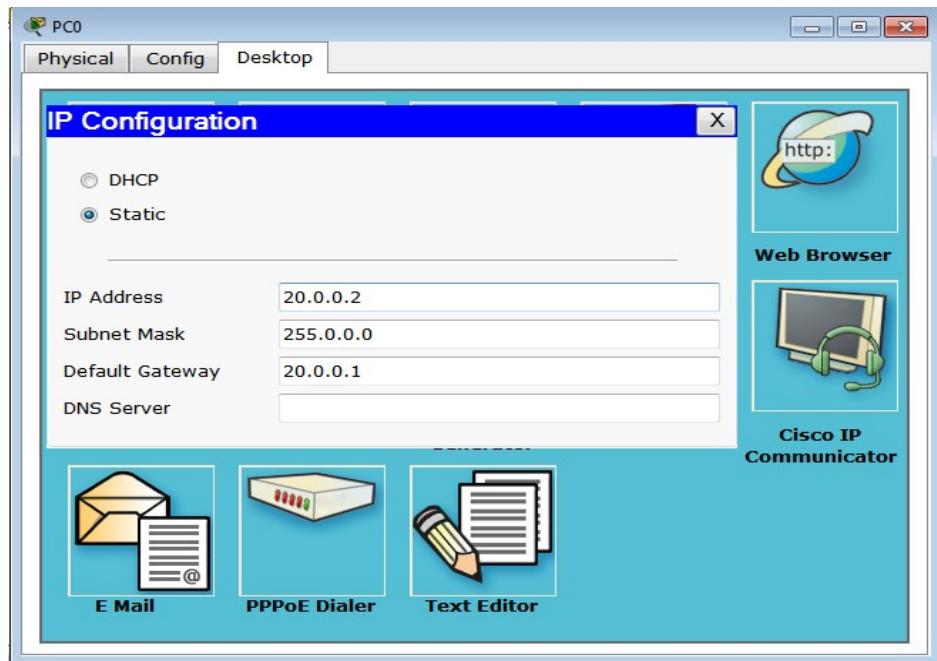
Router(config-if)#no shut

%LINK-5-CHANGED: Interface FastEthernet1/0, changed state to up

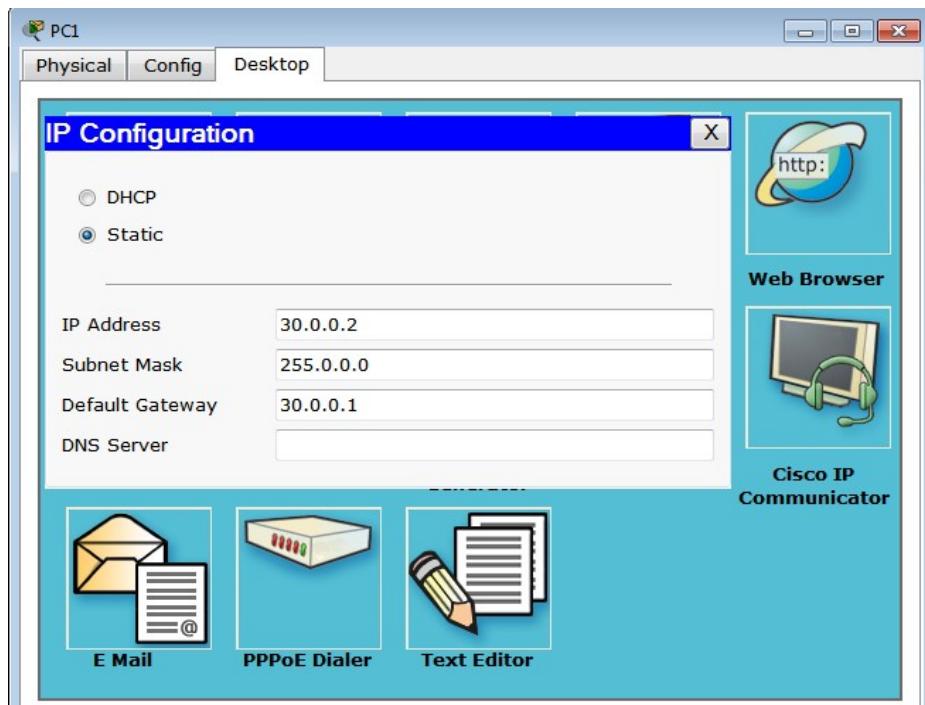
%LINEPROTO-5-UPDOWN: Line protocol on Interface
FastEthernet1/0, changed state to up

Router(config-if)#exit

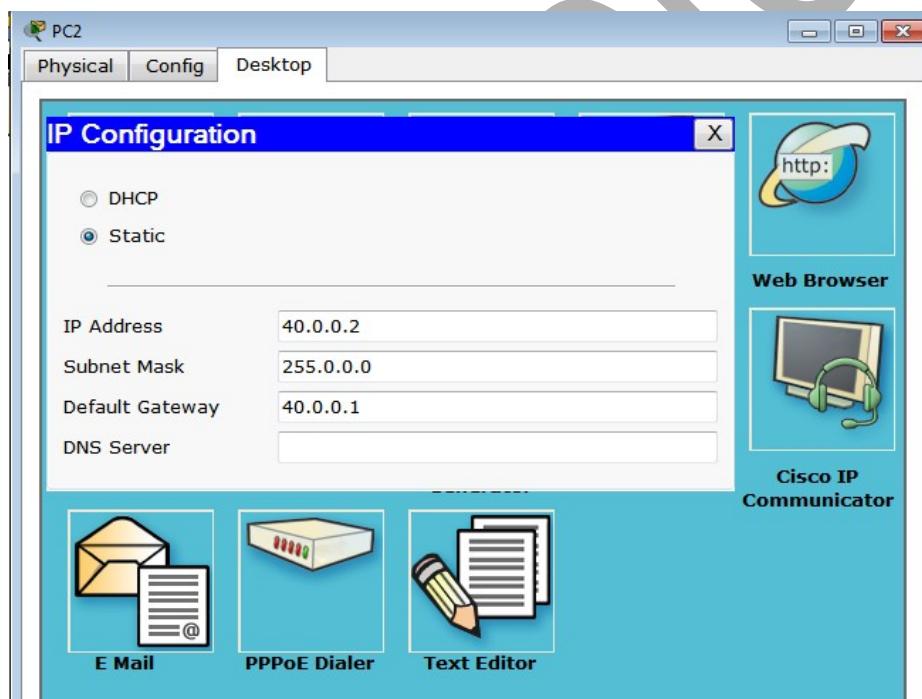
IP Configuration For PC0:



IP Configuration For PC1:



IP Configuration For PC2:



Configure RIP to Router R0:

Router>en

Router#config t

Enter configuration commands, one per line. End with CNTL/Z.

Router(config)#router rip

Router(config-router)#network?

network

Router(config-router)#network 10.0.0.0

Router(config-router)#network 20.0.0.0

Router(config-router)#network 30.0.0.0

Router(config-router)#^Z

Router0

Physical Config CLI

IOS Command Line Interface

```
Router>en
Router#config t
Enter configuration commands, one per line.  End with CNTL/Z.
Router(config)#router rip
Router(config-router)#network?
network
Router(config-router)#network 10.0.0.0
Router(config-router)#network 20.0.0.0
Router(config-router)#network 30.0.0.0
Router(config-router)#^Z
Router#
%SYS-5-CONFIG_I: Configured from console by console
```

Copy Paste

Configure RIP to Router R1:

Router>en

Router#config t

Enter configuration commands, one per line. End with CNTL/Z.

Router(config)#router rip

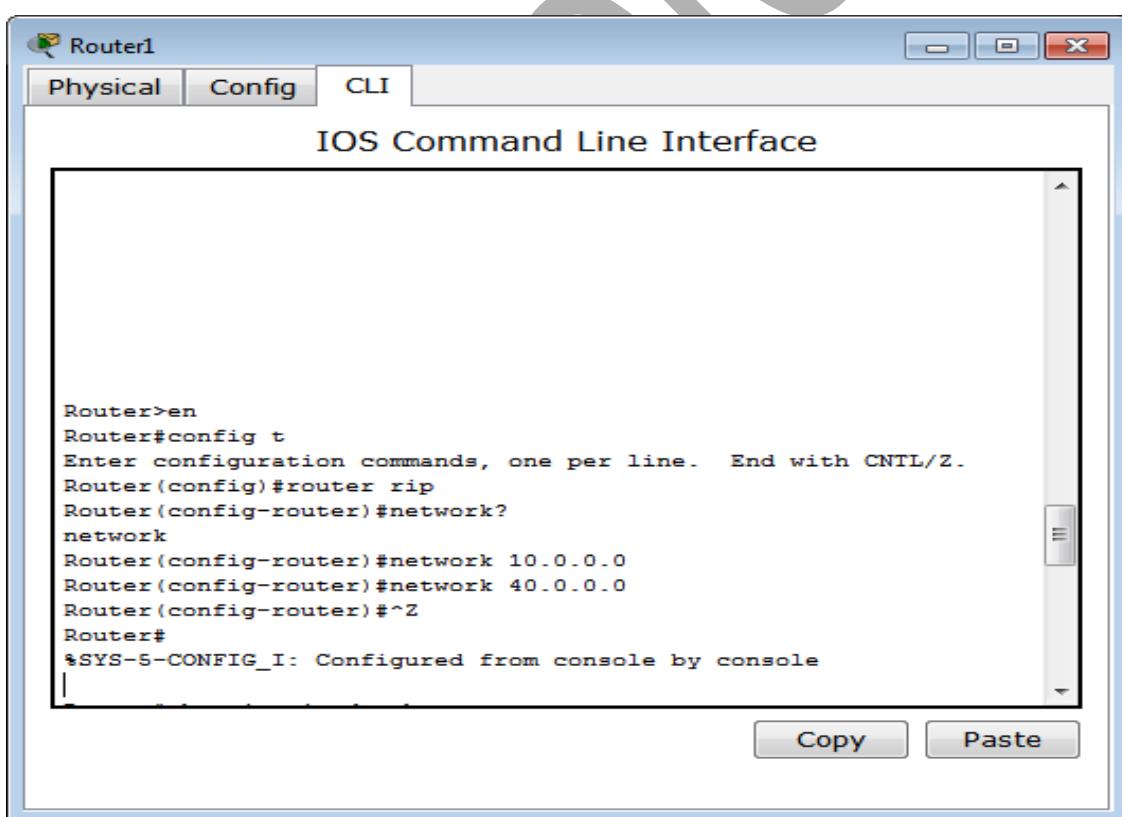
Router(config-router)#network?

network

Router(config-router)#network 10.0.0.0

Router(config-router)#network 40.0.0.0

Router(config-router)#^Z



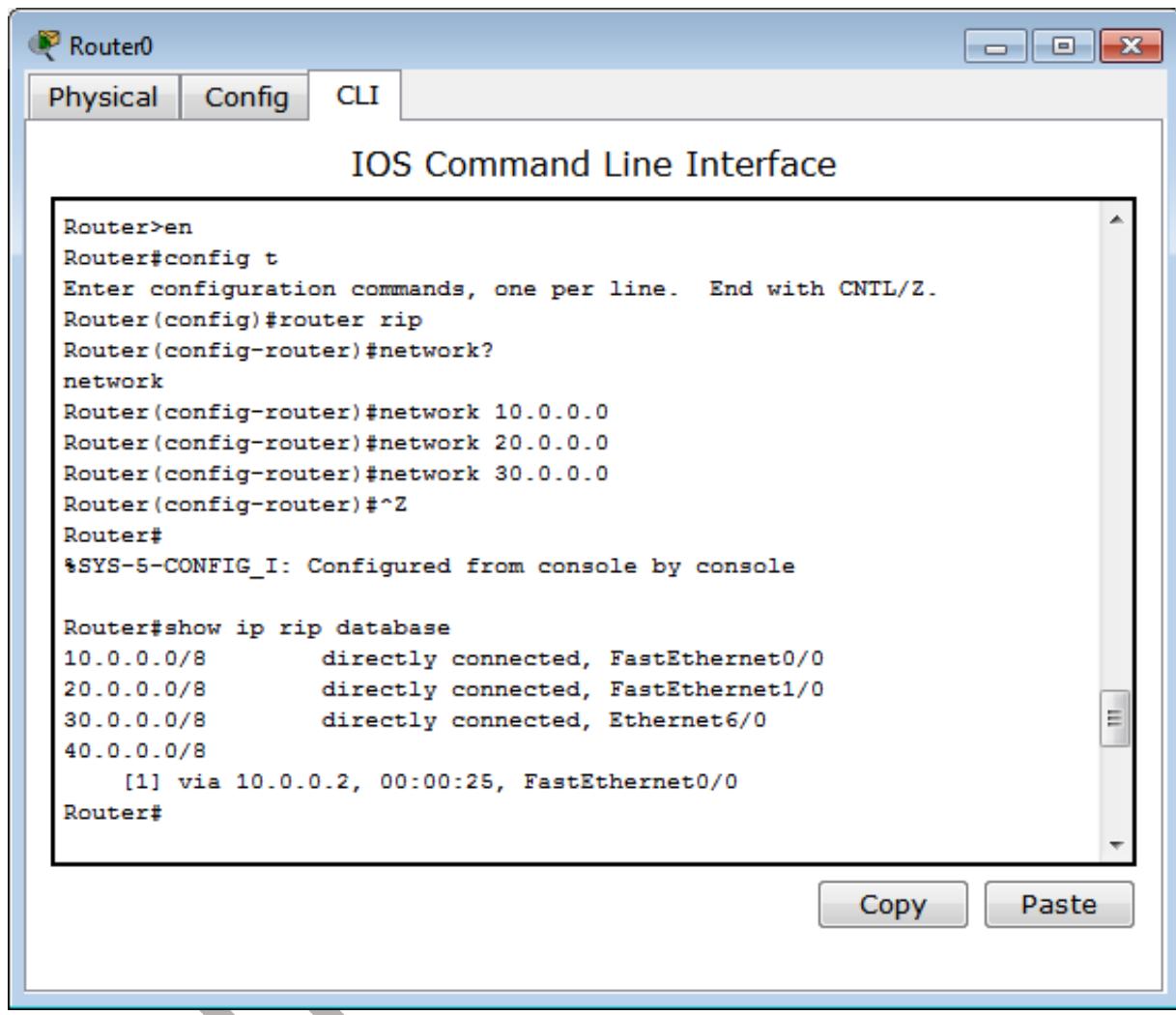
The screenshot shows the Router1 software interface with the 'CLI' tab selected. The main window displays the IOS Command Line Interface. The command history and configuration steps are visible in the terminal window, ending with a configuration message and a prompt for further input.

```
Router>en
Router#config t
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#router rip
Router(config-router)#network?
network
Router(config-router)#network 10.0.0.0
Router(config-router)#network 40.0.0.0
Router(config-router)#^Z
Router#
%SYS-5-CONFIG_I: Configured from console by console
|
```

At the bottom of the terminal window, there are 'Copy' and 'Paste' buttons.

See Routing Table For Router R0:

Router#show ip rip database



The screenshot shows a Windows application window titled "Router0". The window has three tabs at the top: "Physical", "Config", and "CLI". The "CLI" tab is selected, displaying the "IOS Command Line Interface". The interface shows the following command history and output:

```
Router>en
Router#config t
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#router rip
Router(config-router)#network?
network
Router(config-router)#network 10.0.0.0
Router(config-router)#network 20.0.0.0
Router(config-router)#network 30.0.0.0
Router(config-router)#{^Z
Router#
%SYS-5-CONFIG_I: Configured from console by console

Router#show ip rip database
10.0.0.0/8      directly connected, FastEthernet0/0
20.0.0.0/8      directly connected, FastEthernet1/0
30.0.0.0/8      directly connected, Ethernet6/0
40.0.0.0/8
    [1] via 10.0.0.2, 00:00:25, FastEthernet0/0
Router#
```

At the bottom of the window are two buttons: "Copy" and "Paste".

See Routing Table For Router R1:

Router#show ip rip database

```
Router>en
Router#config t
Enter configuration commands, one per line.  End with CNTL/Z.
Router(config)#router rip
Router(config-router)#network?
network
Router(config-router)#network 10.0.0.0
Router(config-router)#network 40.0.0.0
Router(config-router)#{^Z
Router#
%SYS-5-CONFIG_I: Configured from console by console
|
Router#show ip rip database
10.0.0.0/8      directly connected, FastEthernet0/0
20.0.0.0/8
    [1] via 10.0.0.1, 00:00:03, FastEthernet0/0
30.0.0.0/8
    [1] via 10.0.0.1, 00:00:03, FastEthernet0/0
40.0.0.0/8      directly connected, FastEthernet1/0
Router#
```

Copy Paste

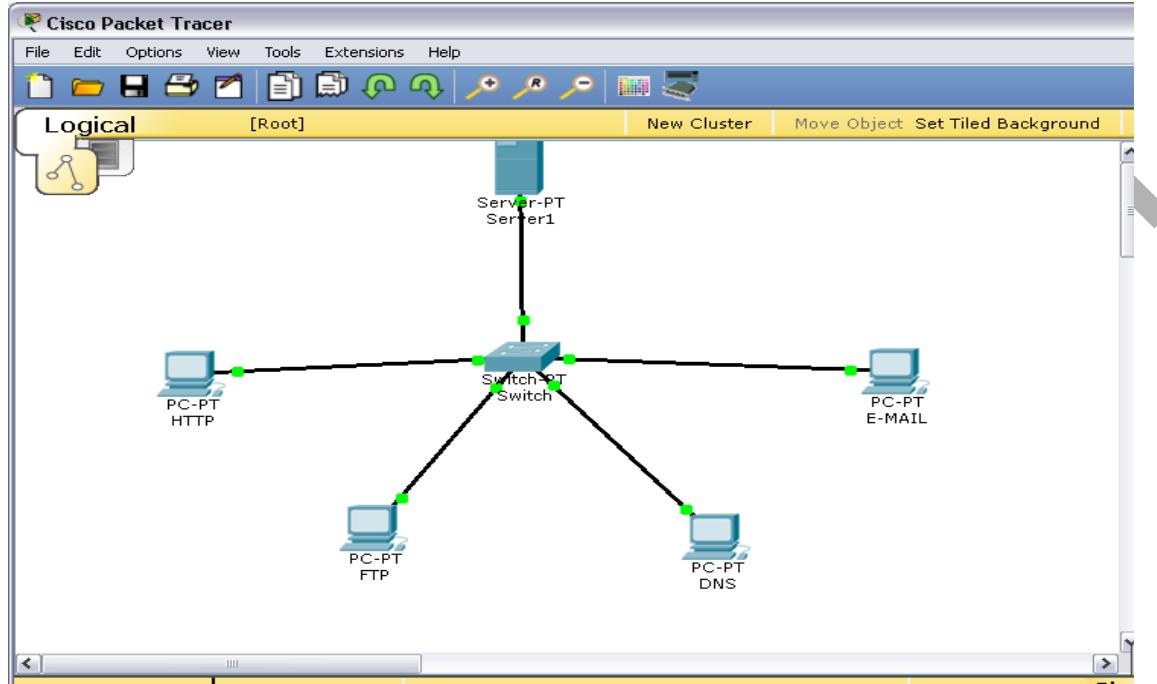
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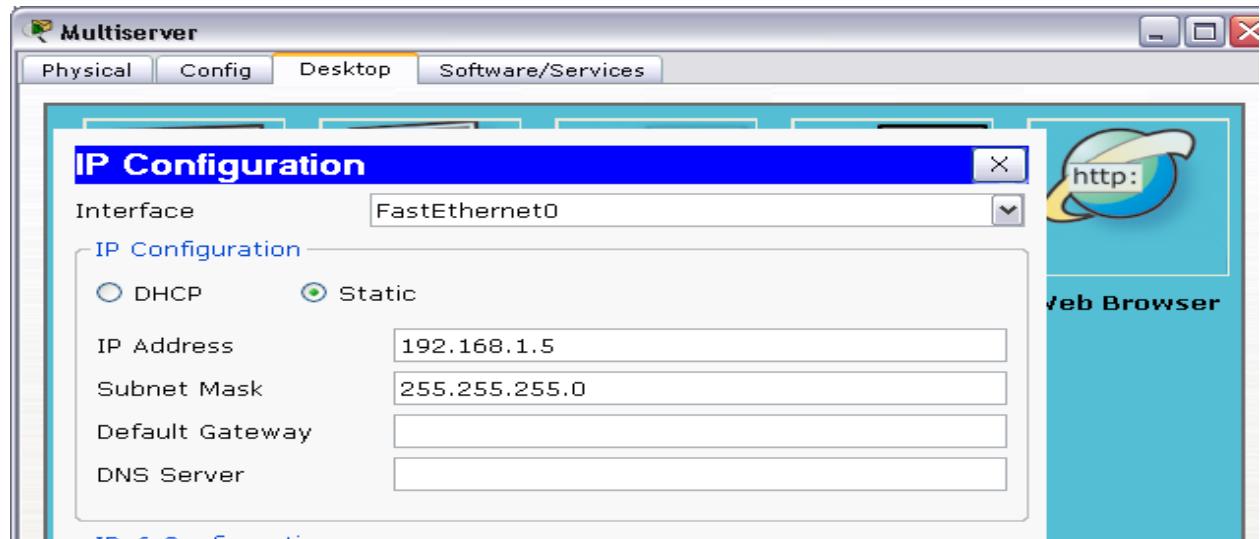
munotes.inPRACTICAL 6

Aim:Configuring UDP and TCP

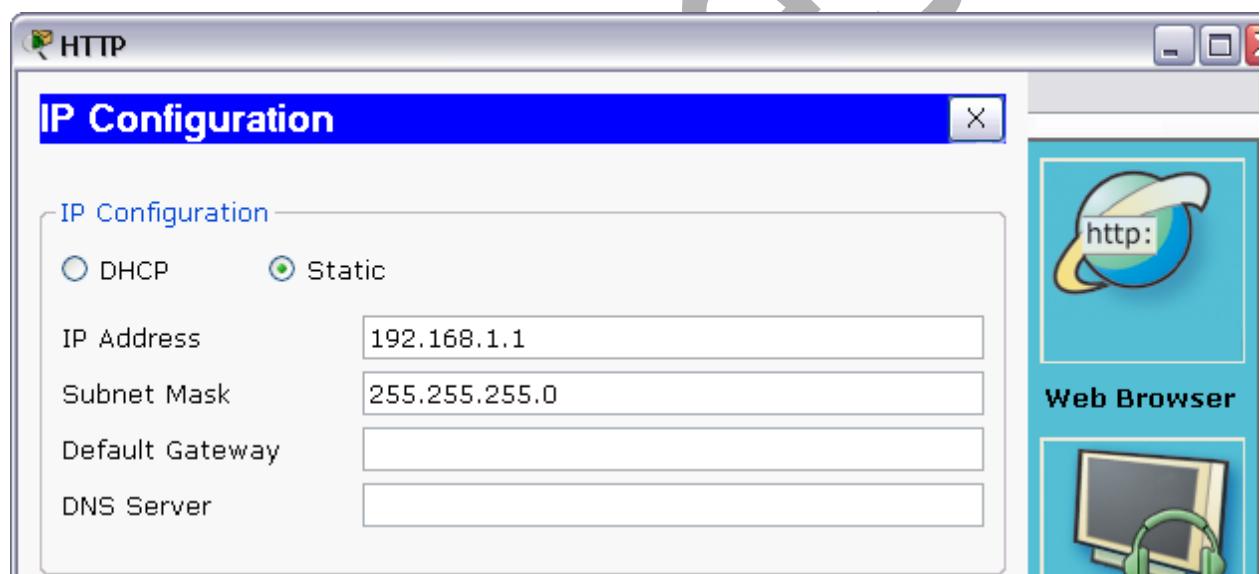
1] Click server/ Desktop/IP Configuration /Static [http client]:-



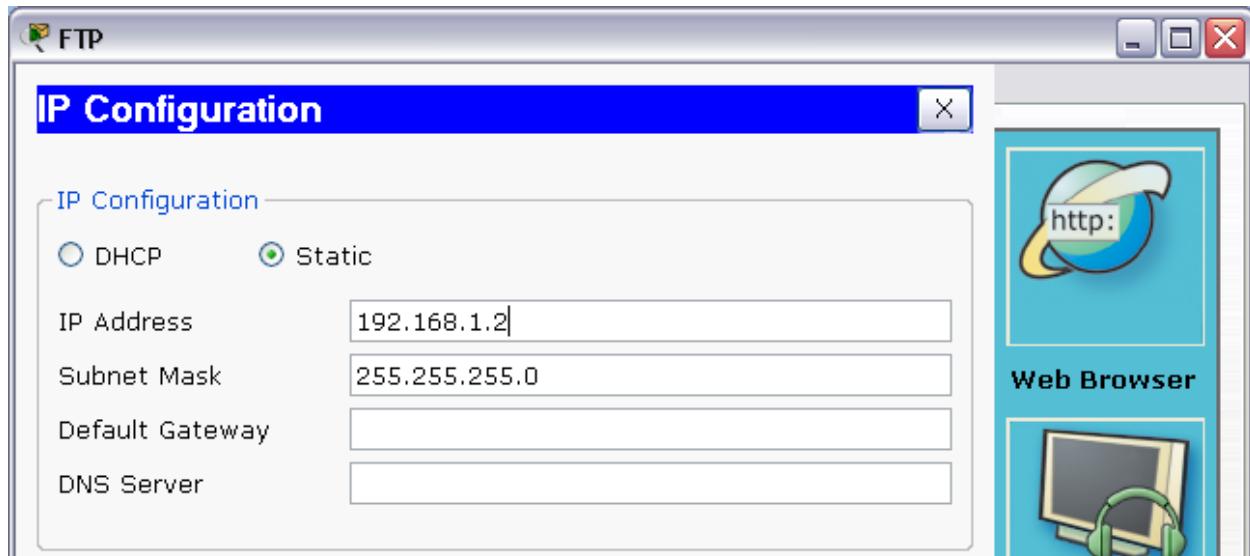
2] Click PC0/ Desktop/IP Configuration /Static [multiserver]:-



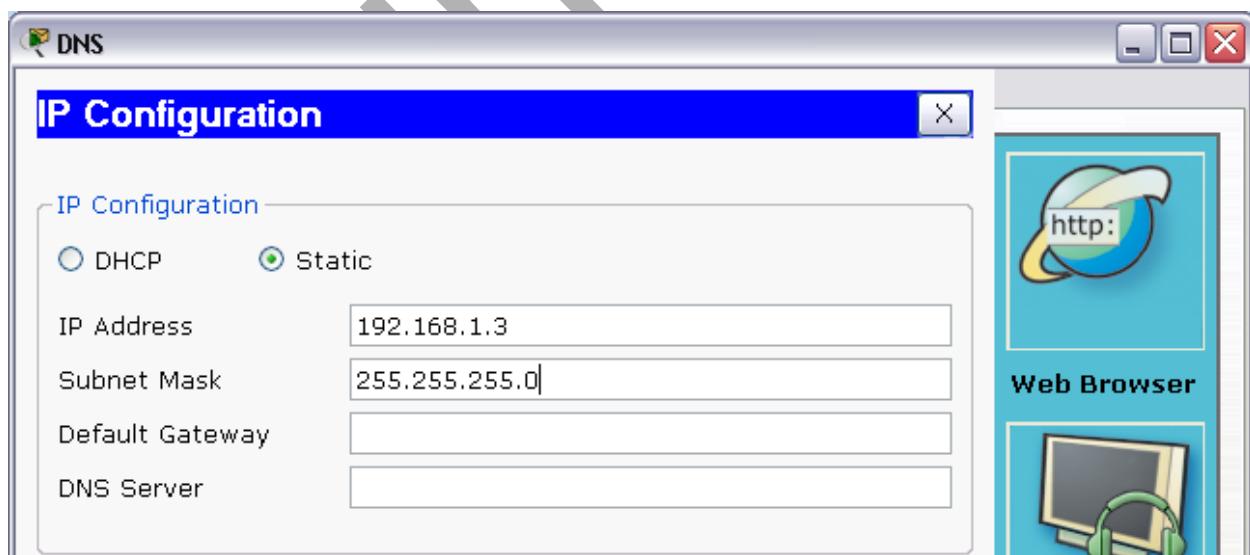
3] Click PC0/ Desktop/IP Configuration /Static [http client]:-



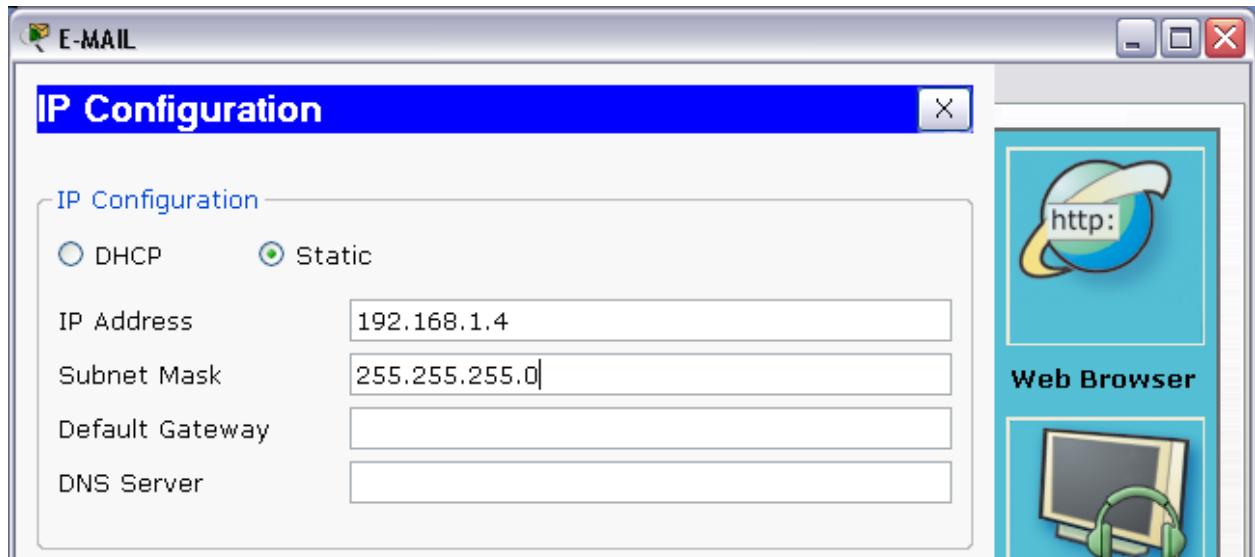
4] Click PC1/ Desktop/IP Configuration /Static [ftp client]:-



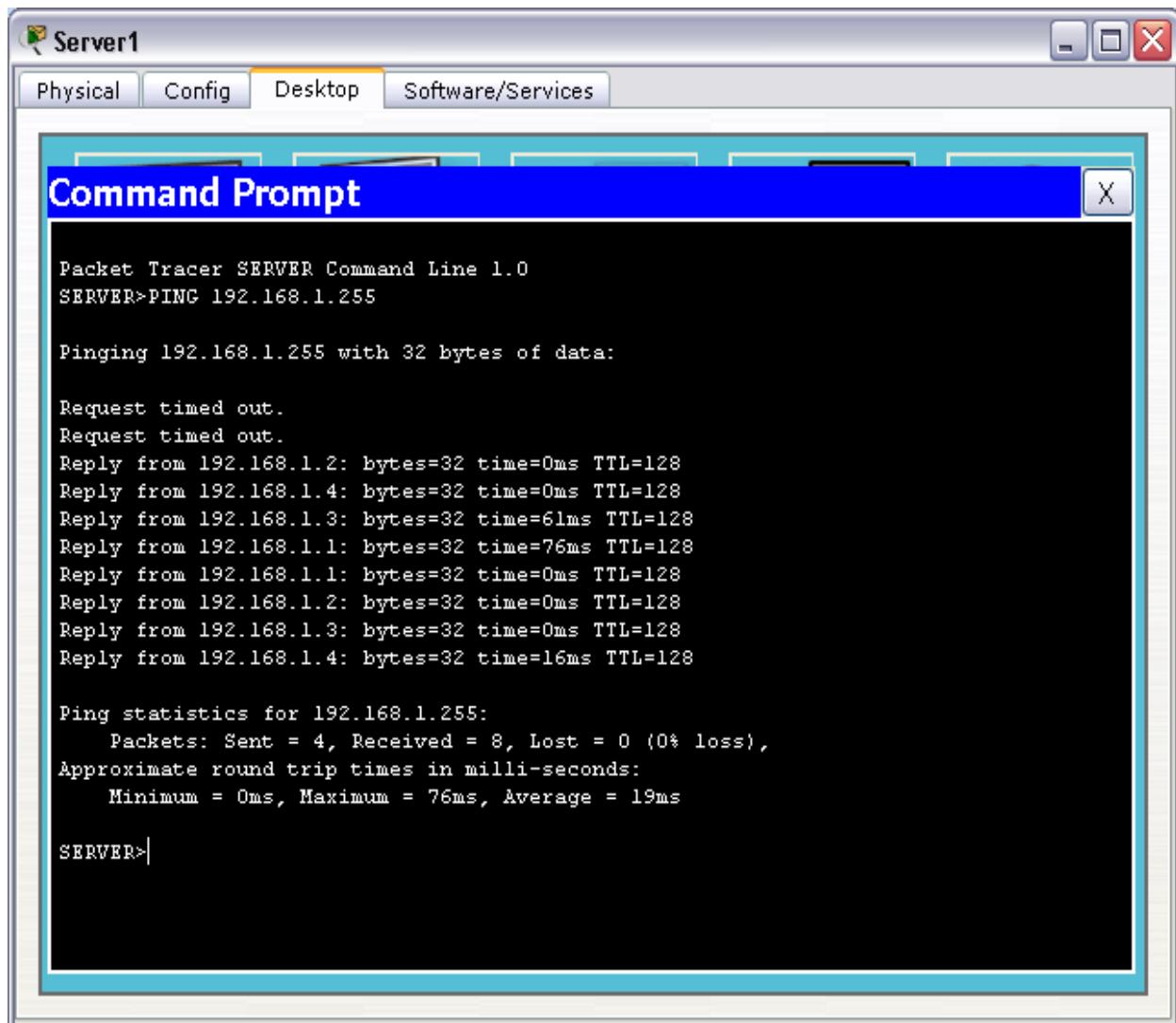
5] Click PC2/ Desktop/IP Configuration /Static [dns client]:-



6] Click PC3/ Desktop/IP Configuration /Static [Email client]:-



7] Command prompt for multiserver:-



8] Command prompt for http client:-

The screenshot shows a "Command Prompt" window from the "HTTP" tab of a Packet Tracer interface. The window title is "Command Prompt". The content of the window shows the output of a ping command:

```
Packet Tracer PC Command Line 1.0
PC>PING 192.168.1.255

Pinging 192.168.1.255 with 32 bytes of data:

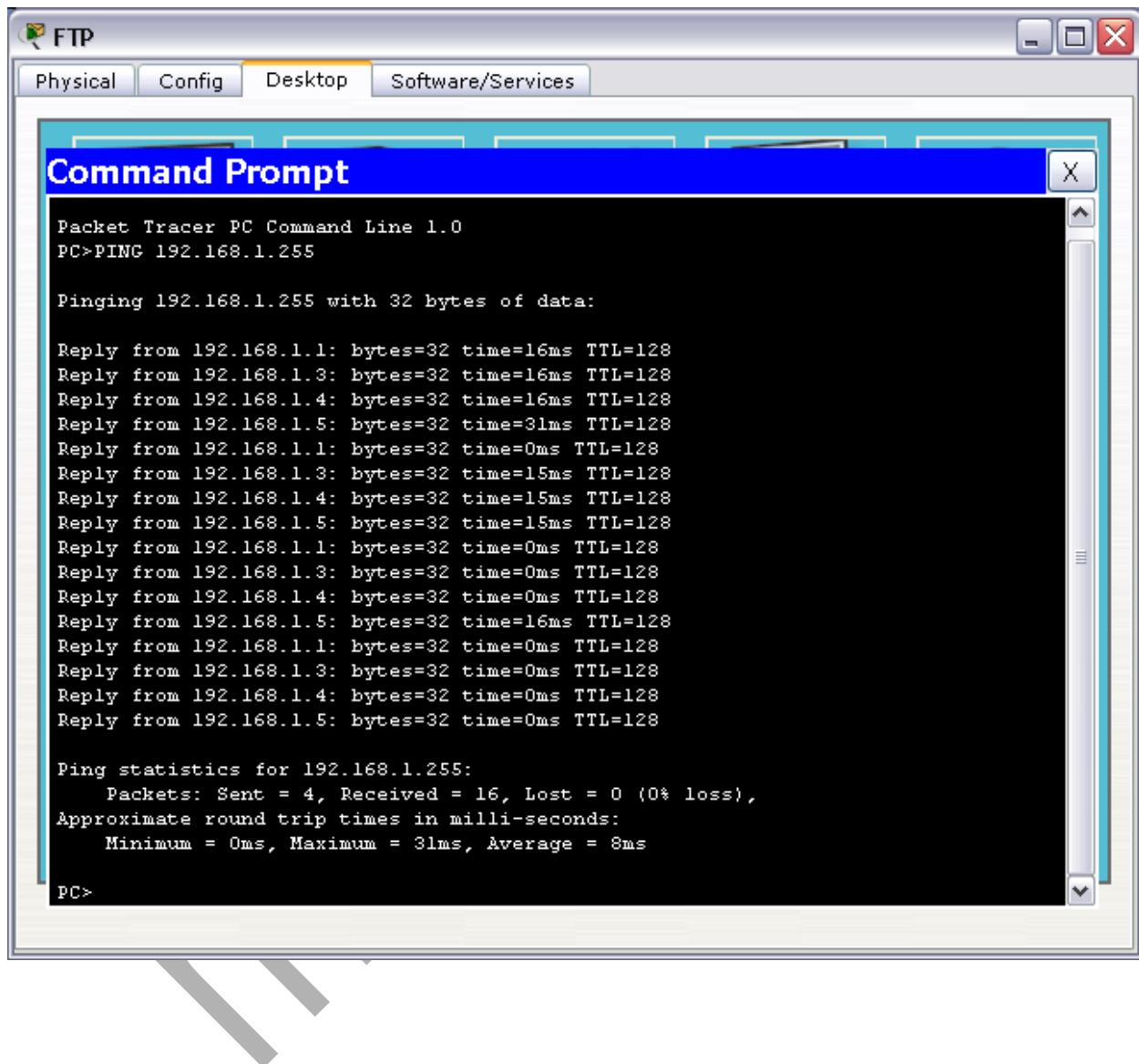
Reply from 192.168.1.2: bytes=32 time=0ms TTL=128
Reply from 192.168.1.3: bytes=32 time=0ms TTL=128
Reply from 192.168.1.4: bytes=32 time=0ms TTL=128
Reply from 192.168.1.5: bytes=32 time=16ms TTL=128
Reply from 192.168.1.2: bytes=32 time=0ms TTL=128
Reply from 192.168.1.3: bytes=32 time=0ms TTL=128
Reply from 192.168.1.4: bytes=32 time=0ms TTL=128
Reply from 192.168.1.5: bytes=32 time=16ms TTL=128
Reply from 192.168.1.2: bytes=32 time=0ms TTL=128
Reply from 192.168.1.3: bytes=32 time=0ms TTL=128
Reply from 192.168.1.4: bytes=32 time=0ms TTL=128
Reply from 192.168.1.5: bytes=32 time=15ms TTL=128
Reply from 192.168.1.2: bytes=32 time=0ms TTL=128
Reply from 192.168.1.3: bytes=32 time=0ms TTL=128
Reply from 192.168.1.4: bytes=32 time=0ms TTL=128
Reply from 192.168.1.5: bytes=32 time=0ms TTL=128

Ping statistics for 192.168.1.255:
    Packets: Sent = 4, Received = 16, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 16ms, Average = 2ms

PC>
```

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9] Command prompt for ftp client:-



The screenshot shows a window titled "Command Prompt" with a blue header bar. The window contains a black text area displaying the output of a ping command. The text shows multiple replies from the target IP address 192.168.1.1, with varying round trip times (RTTs) and TTL values. At the bottom, ping statistics are provided, indicating 4 sent packets, 16 received packets, and 0% loss. The average RTT is 8ms.

```
Packet Tracer PC Command Line 1.0
PC>PING 192.168.1.255

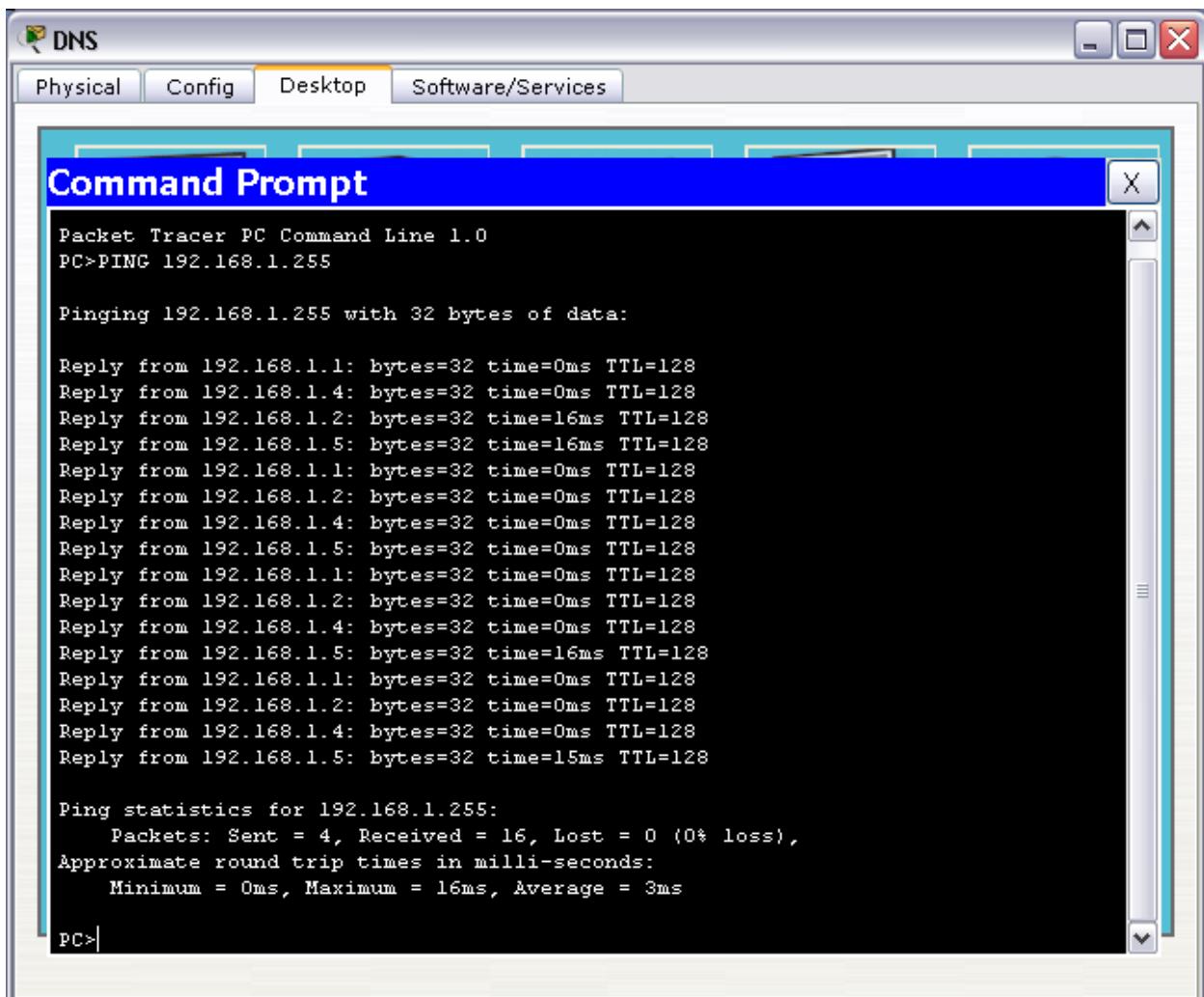
Pinging 192.168.1.255 with 32 bytes of data:

Reply from 192.168.1.1: bytes=32 time=16ms TTL=128
Reply from 192.168.1.3: bytes=32 time=16ms TTL=128
Reply from 192.168.1.4: bytes=32 time=16ms TTL=128
Reply from 192.168.1.5: bytes=32 time=31ms TTL=128
Reply from 192.168.1.1: bytes=32 time=0ms TTL=128
Reply from 192.168.1.3: bytes=32 time=15ms TTL=128
Reply from 192.168.1.4: bytes=32 time=15ms TTL=128
Reply from 192.168.1.5: bytes=32 time=15ms TTL=128
Reply from 192.168.1.1: bytes=32 time=0ms TTL=128
Reply from 192.168.1.3: bytes=32 time=0ms TTL=128
Reply from 192.168.1.4: bytes=32 time=0ms TTL=128
Reply from 192.168.1.5: bytes=32 time=16ms TTL=128
Reply from 192.168.1.1: bytes=32 time=0ms TTL=128
Reply from 192.168.1.3: bytes=32 time=0ms TTL=128
Reply from 192.168.1.4: bytes=32 time=0ms TTL=128
Reply from 192.168.1.5: bytes=32 time=0ms TTL=128

Ping statistics for 192.168.1.255:
    Packets: Sent = 4, Received = 16, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 31ms, Average = 8ms

PC>
```

10] Command prompt for dns client:-



The screenshot shows a "Command Prompt" window within a "Packet Tracer PC" interface. The window title is "Command Prompt". The content of the window shows the output of a ping command:

```
Packet Tracer PC Command Line 1.0
PC>PING 192.168.1.255

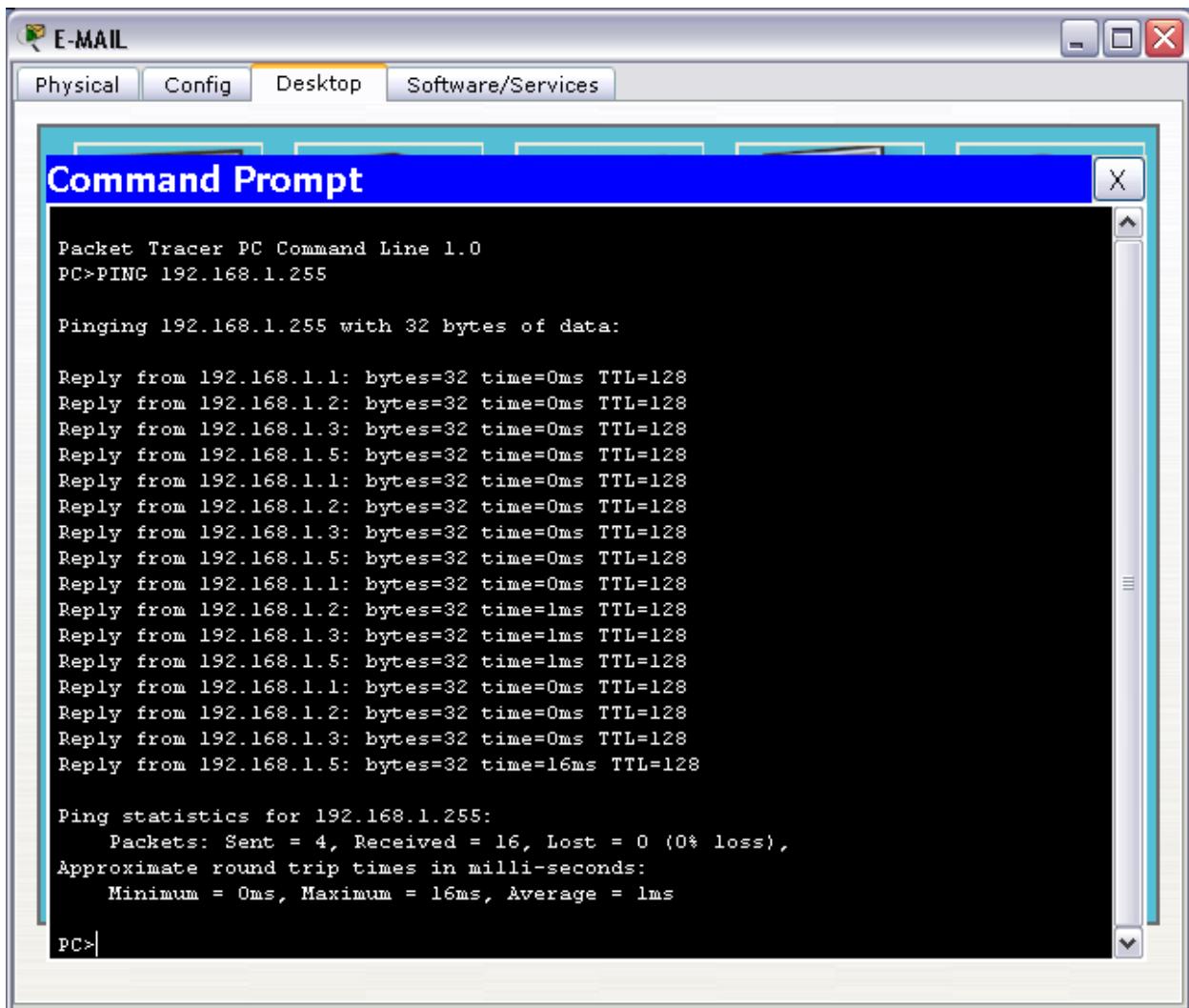
Pinging 192.168.1.255 with 32 bytes of data:

Reply from 192.168.1.1: bytes=32 time=0ms TTL=128
Reply from 192.168.1.4: bytes=32 time=0ms TTL=128
Reply from 192.168.1.2: bytes=32 time=16ms TTL=128
Reply from 192.168.1.5: bytes=32 time=16ms TTL=128
Reply from 192.168.1.1: bytes=32 time=0ms TTL=128
Reply from 192.168.1.2: bytes=32 time=0ms TTL=128
Reply from 192.168.1.4: bytes=32 time=0ms TTL=128
Reply from 192.168.1.5: bytes=32 time=0ms TTL=128
Reply from 192.168.1.1: bytes=32 time=0ms TTL=128
Reply from 192.168.1.2: bytes=32 time=0ms TTL=128
Reply from 192.168.1.4: bytes=32 time=0ms TTL=128
Reply from 192.168.1.5: bytes=32 time=16ms TTL=128
Reply from 192.168.1.1: bytes=32 time=0ms TTL=128
Reply from 192.168.1.2: bytes=32 time=0ms TTL=128
Reply from 192.168.1.4: bytes=32 time=0ms TTL=128
Reply from 192.168.1.5: bytes=32 time=15ms TTL=128

Ping statistics for 192.168.1.255:
    Packets: Sent = 4, Received = 16, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 16ms, Average = 3ms

PC>
```

11] Command prompt for Email client:-



The screenshot shows a Windows desktop environment with a window titled "E-MAIL" containing a "Command Prompt" window. The command prompt window has a title bar "Command Prompt" and a status bar at the bottom with "PC>". The main area displays the output of a ping command:

```
Packet Tracer PC Command Line 1.0
PC>PING 192.168.1.255

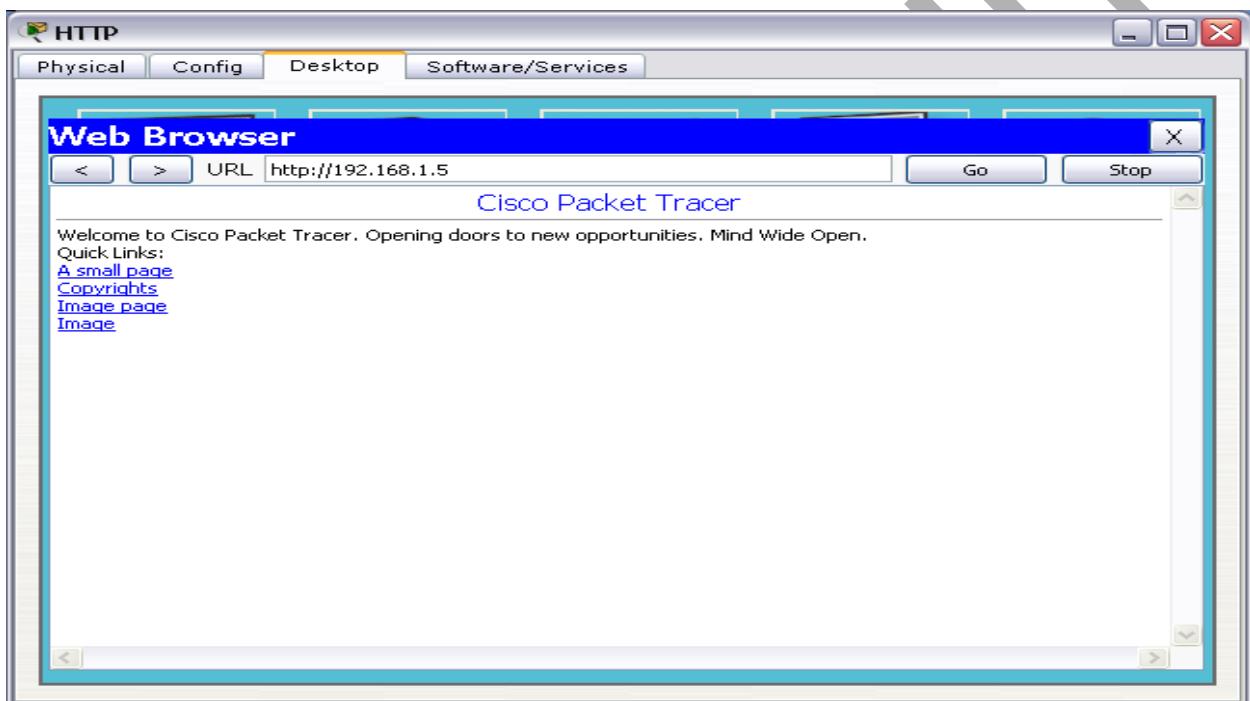
Pinging 192.168.1.255 with 32 bytes of data:

Reply from 192.168.1.1: bytes=32 time=0ms TTL=128
Reply from 192.168.1.2: bytes=32 time=0ms TTL=128
Reply from 192.168.1.3: bytes=32 time=0ms TTL=128
Reply from 192.168.1.5: bytes=32 time=0ms TTL=128
Reply from 192.168.1.1: bytes=32 time=0ms TTL=128
Reply from 192.168.1.2: bytes=32 time=0ms TTL=128
Reply from 192.168.1.3: bytes=32 time=0ms TTL=128
Reply from 192.168.1.5: bytes=32 time=0ms TTL=128
Reply from 192.168.1.1: bytes=32 time=0ms TTL=128
Reply from 192.168.1.2: bytes=32 time=1ms TTL=128
Reply from 192.168.1.3: bytes=32 time=1ms TTL=128
Reply from 192.168.1.5: bytes=32 time=1ms TTL=128
Reply from 192.168.1.1: bytes=32 time=0ms TTL=128
Reply from 192.168.1.2: bytes=32 time=0ms TTL=128
Reply from 192.168.1.3: bytes=32 time=0ms TTL=128
Reply from 192.168.1.5: bytes=32 time=16ms TTL=128

Ping statistics for 192.168.1.255:
    Packets: Sent = 4, Received = 16, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 16ms, Average = 1ms

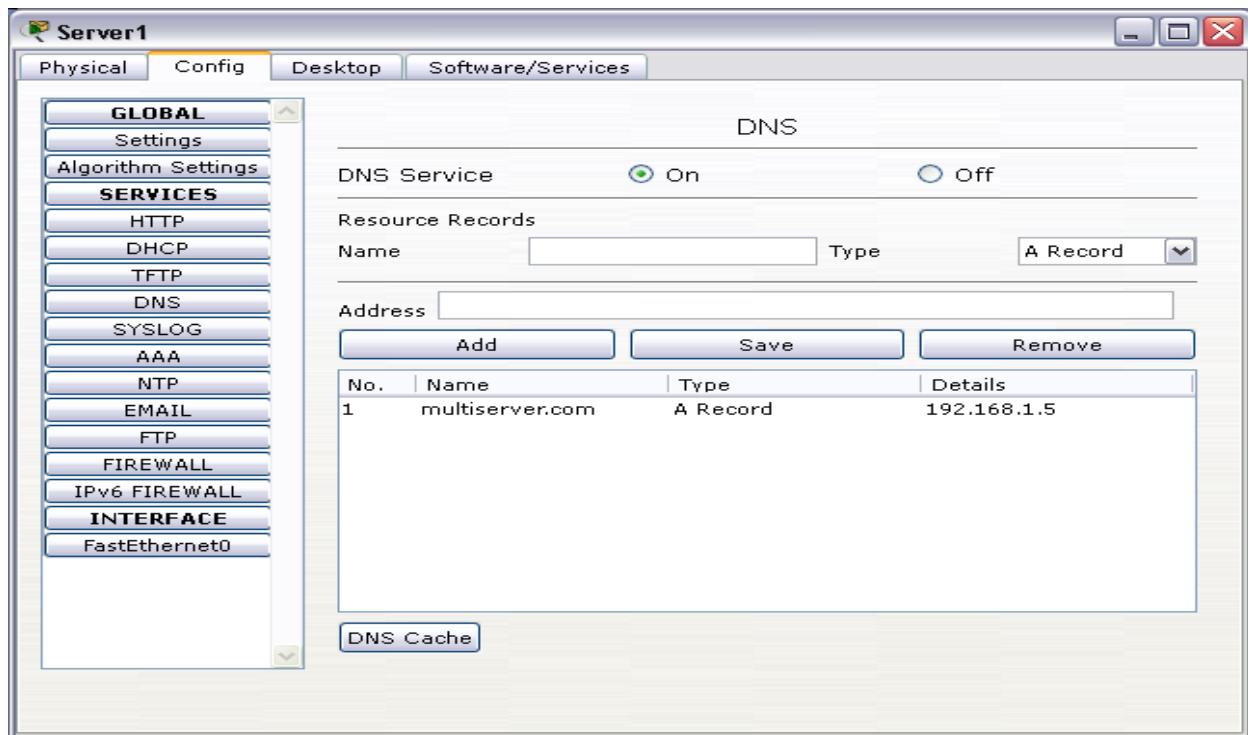
PC>
```

12] Go to simulation mode->click on http->click on web browser->type ip address 192.168.1.5 ->Go



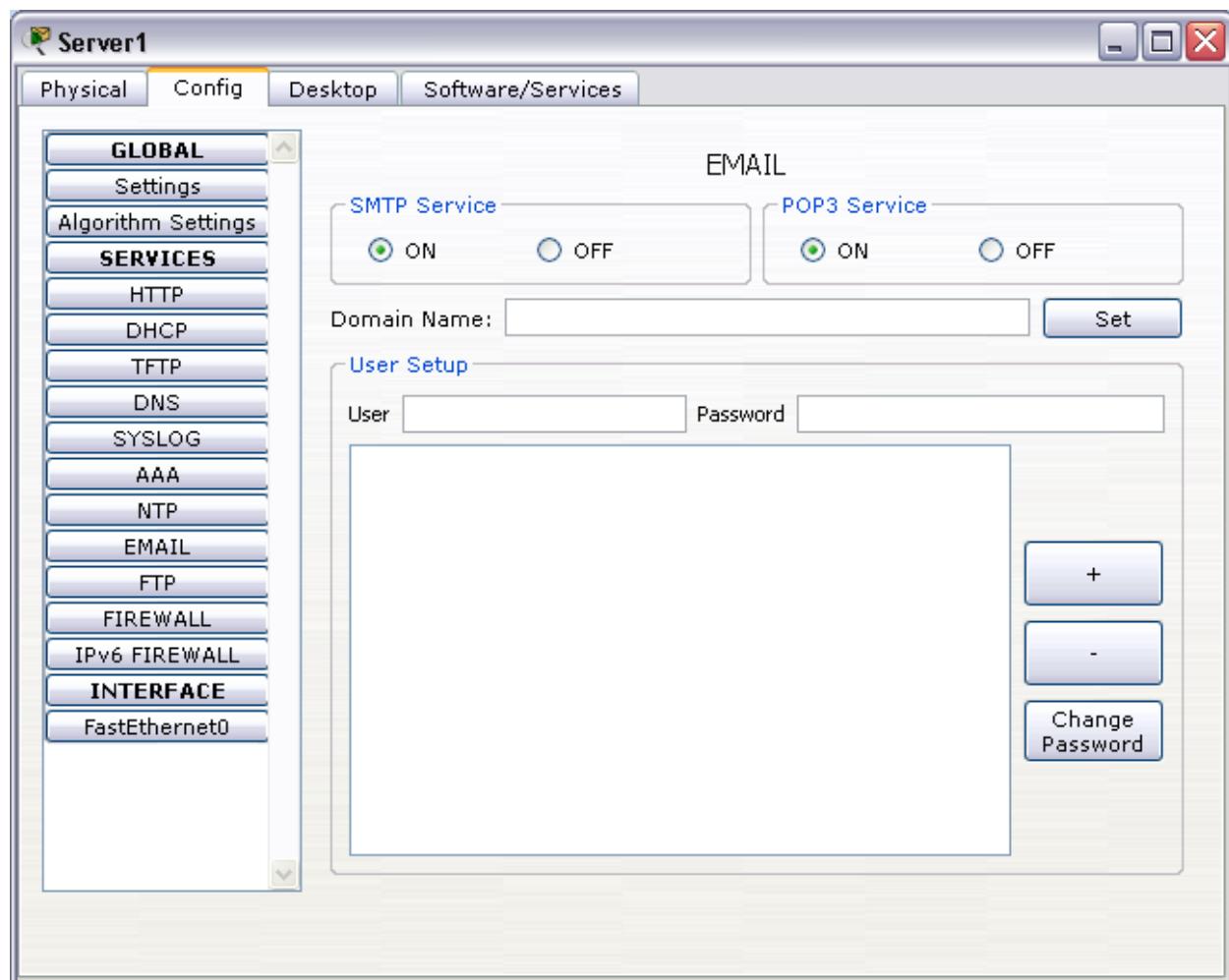
13] Go to realtime mode->click on multiserver->desktop->config->dns

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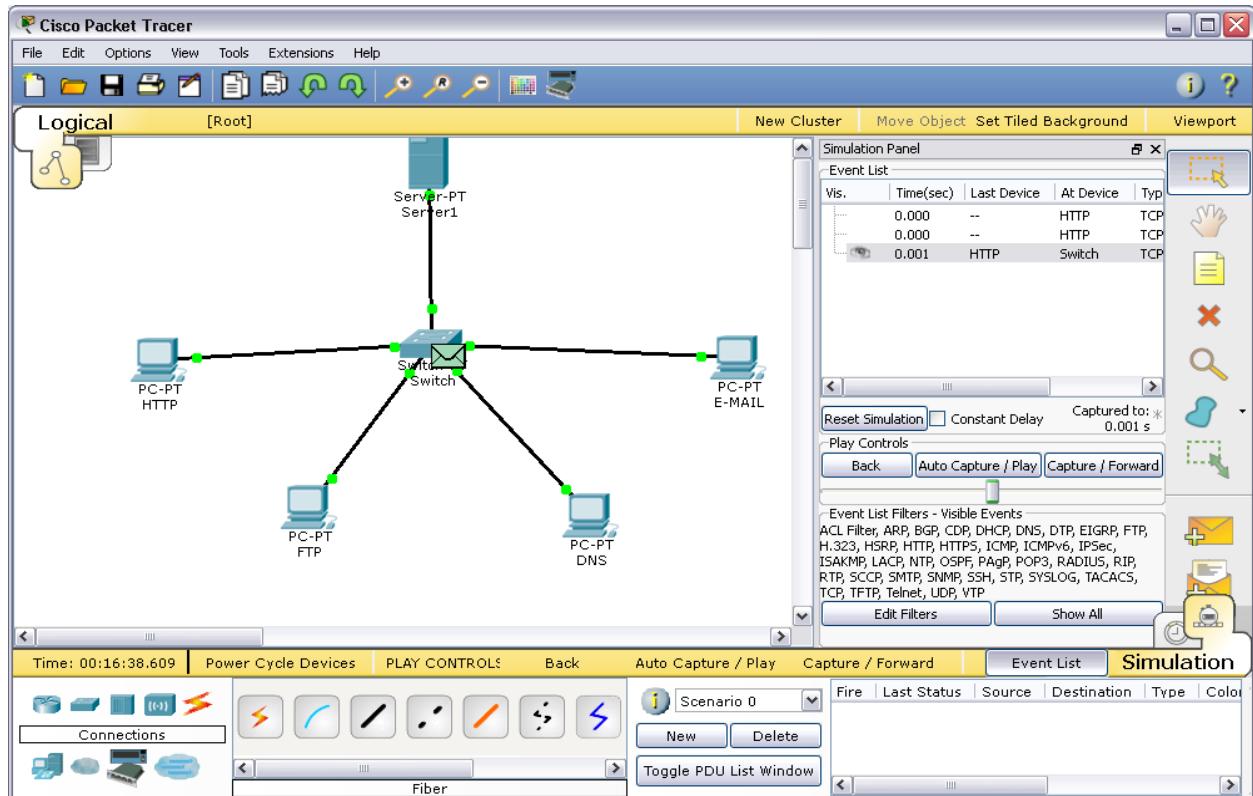
14] Go to realtime mode->click on multiserver->desktop->config->email

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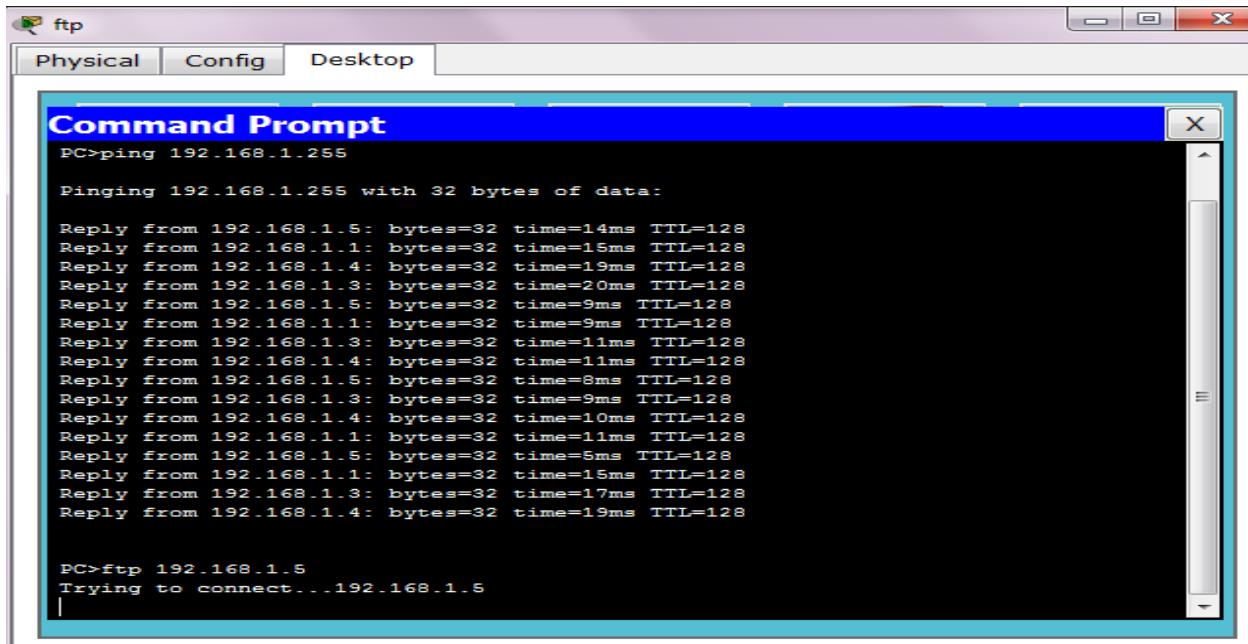
15] Open simulation mode:-

16] http click->desktop->web browser->type ip address 192.168.1.5-> then go



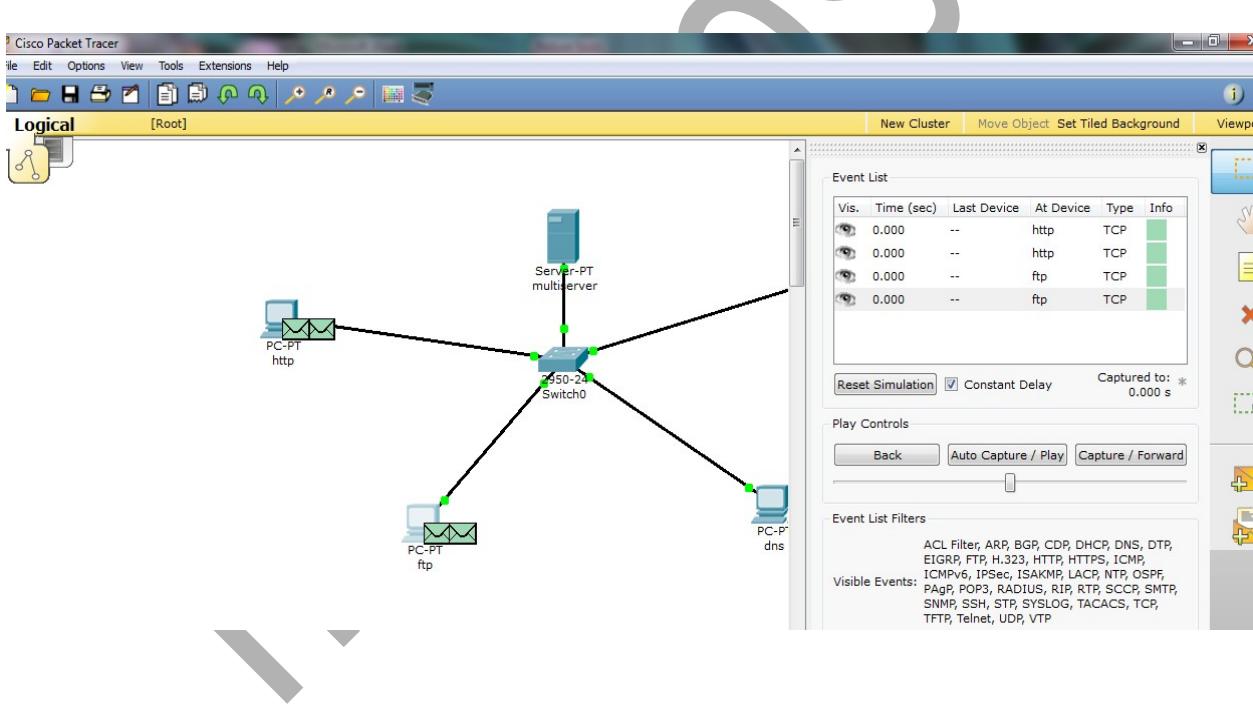
17] Click ftp client->command prompt ->Type >[ftp 192.168.1.5](http://192.168.1.5)

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```
PC>ping 192.168.1.255
Pinging 192.168.1.255 with 32 bytes of data:
Reply from 192.168.1.5: bytes=32 time=14ms TTL=128
Reply from 192.168.1.1: bytes=32 time=15ms TTL=128
Reply from 192.168.1.4: bytes=32 time=19ms TTL=128
Reply from 192.168.1.3: bytes=32 time=20ms TTL=128
Reply from 192.168.1.5: bytes=32 time=9ms TTL=128
Reply from 192.168.1.1: bytes=32 time=9ms TTL=128
Reply from 192.168.1.3: bytes=32 time=11ms TTL=128
Reply from 192.168.1.4: bytes=32 time=11ms TTL=128
Reply from 192.168.1.5: bytes=32 time=8ms TTL=128
Reply from 192.168.1.3: bytes=32 time=9ms TTL=128
Reply from 192.168.1.4: bytes=32 time=10ms TTL=128
Reply from 192.168.1.1: bytes=32 time=11ms TTL=128
Reply from 192.168.1.5: bytes=32 time=5ms TTL=128
Reply from 192.168.1.1: bytes=32 time=15ms TTL=128
Reply from 192.168.1.3: bytes=32 time=17ms TTL=128
Reply from 192.168.1.4: bytes=32 time=19ms TTL=128

PC>ftp 192.168.1.5
Trying to connect...192.168.1.5
|
```



18] Click dns-> desktop-> command prompt ->Type-> nslookup 192.168.1.5

```

DNS
Physical Config Desktop Software/Services

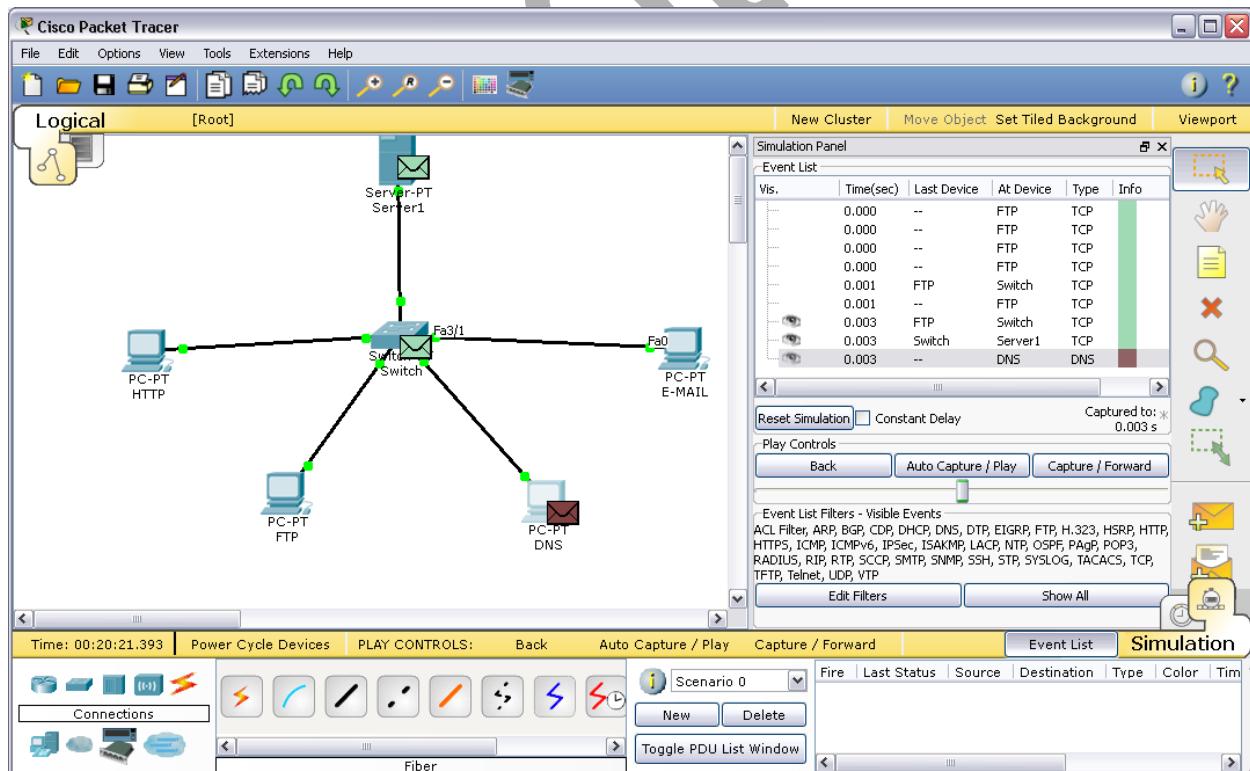
Command Prompt
Pinging 192.168.1.255 with 32 bytes of data:

Reply from 192.168.1.1: bytes=32 time=0ms TTL=128
Reply from 192.168.1.4: bytes=32 time=0ms TTL=128
Reply from 192.168.1.2: bytes=32 time=16ms TTL=128
Reply from 192.168.1.5: bytes=32 time=16ms TTL=128
Reply from 192.168.1.1: bytes=32 time=0ms TTL=128
Reply from 192.168.1.2: bytes=32 time=0ms TTL=128
Reply from 192.168.1.4: bytes=32 time=0ms TTL=128
Reply from 192.168.1.5: bytes=32 time=0ms TTL=128
Reply from 192.168.1.2: bytes=32 time=16ms TTL=128
Reply from 192.168.1.5: bytes=32 time=0ms TTL=128
Reply from 192.168.1.1: bytes=32 time=0ms TTL=128
Reply from 192.168.1.2: bytes=32 time=0ms TTL=128
Reply from 192.168.1.4: bytes=32 time=0ms TTL=128
Reply from 192.168.1.5: bytes=32 time=16ms TTL=128
Reply from 192.168.1.1: bytes=32 time=0ms TTL=128
Reply from 192.168.1.2: bytes=32 time=0ms TTL=128
Reply from 192.168.1.4: bytes=32 time=0ms TTL=128
Reply from 192.168.1.5: bytes=32 time=15ms TTL=128

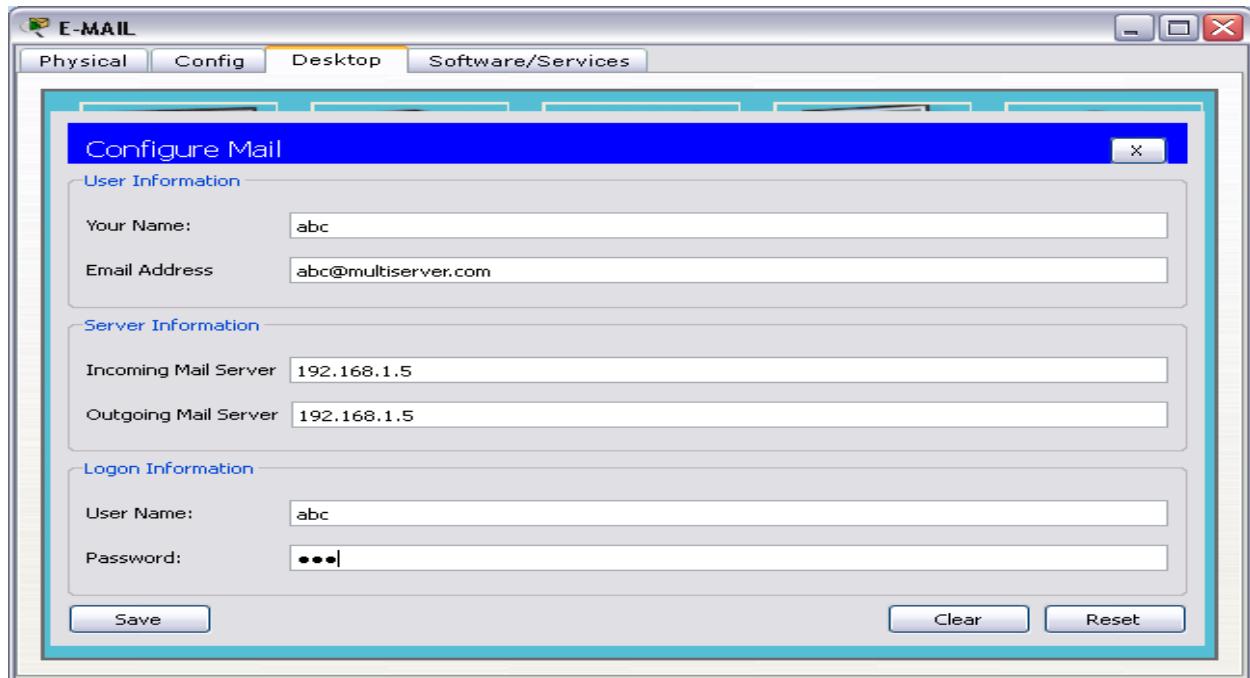
Ping statistics for 192.168.1.255:
    Packets: Sent = 4, Received = 16, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 16ms, Average = 3ms

PC>nslookup 192.168.1.5

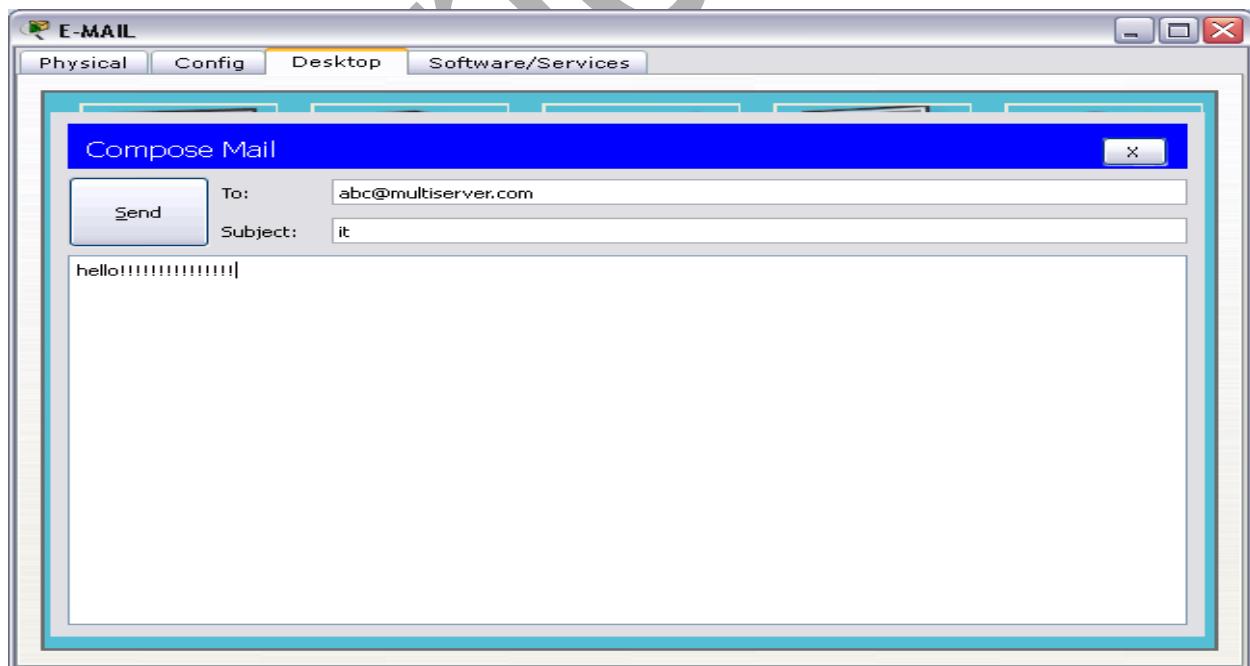
```

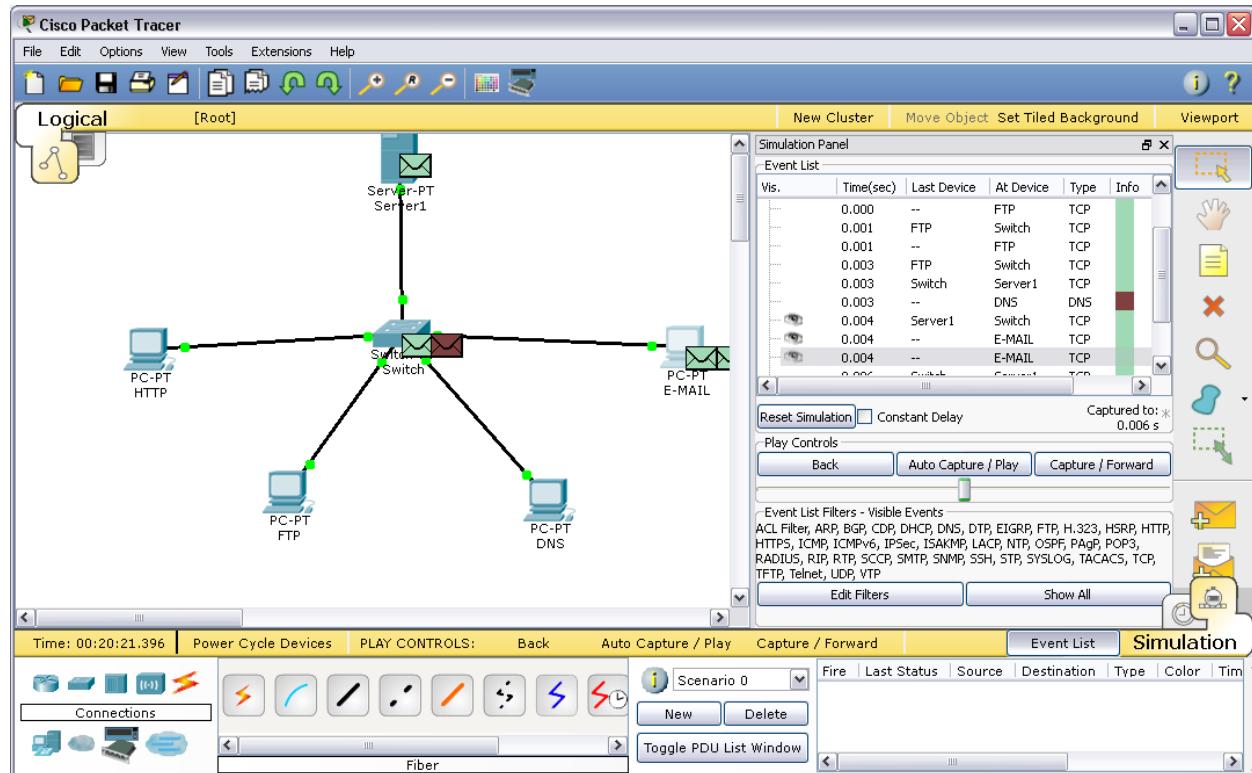


19] Click on email-> desktop-> email -> configure email



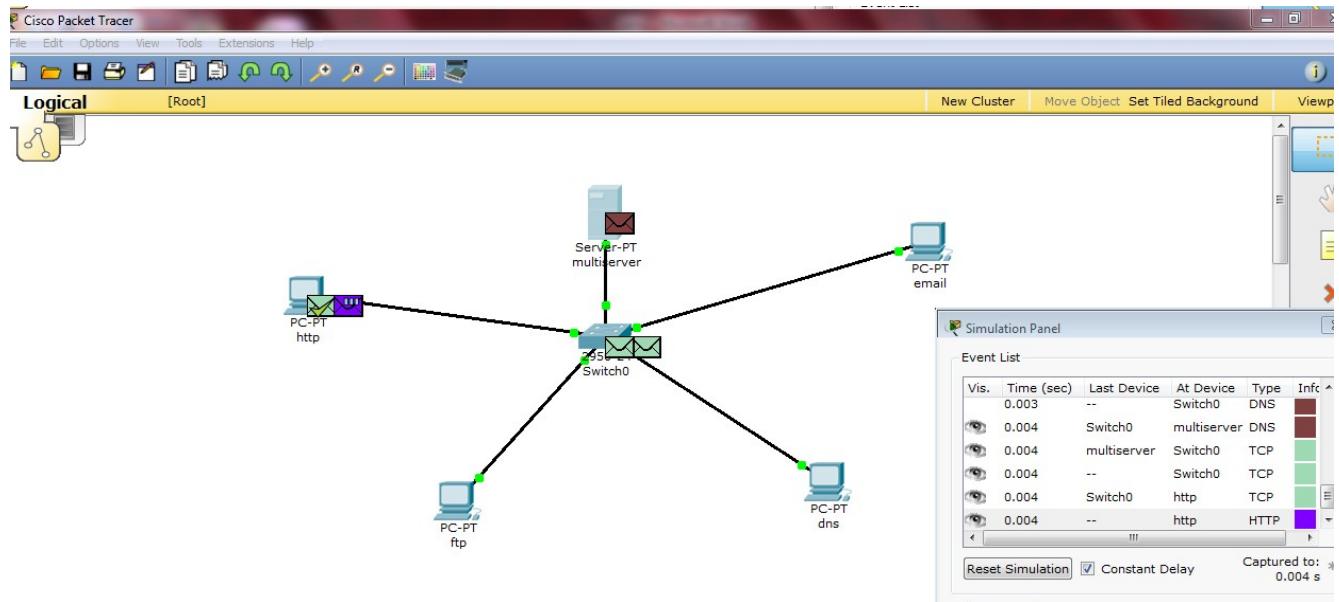
20] Go to compose mail



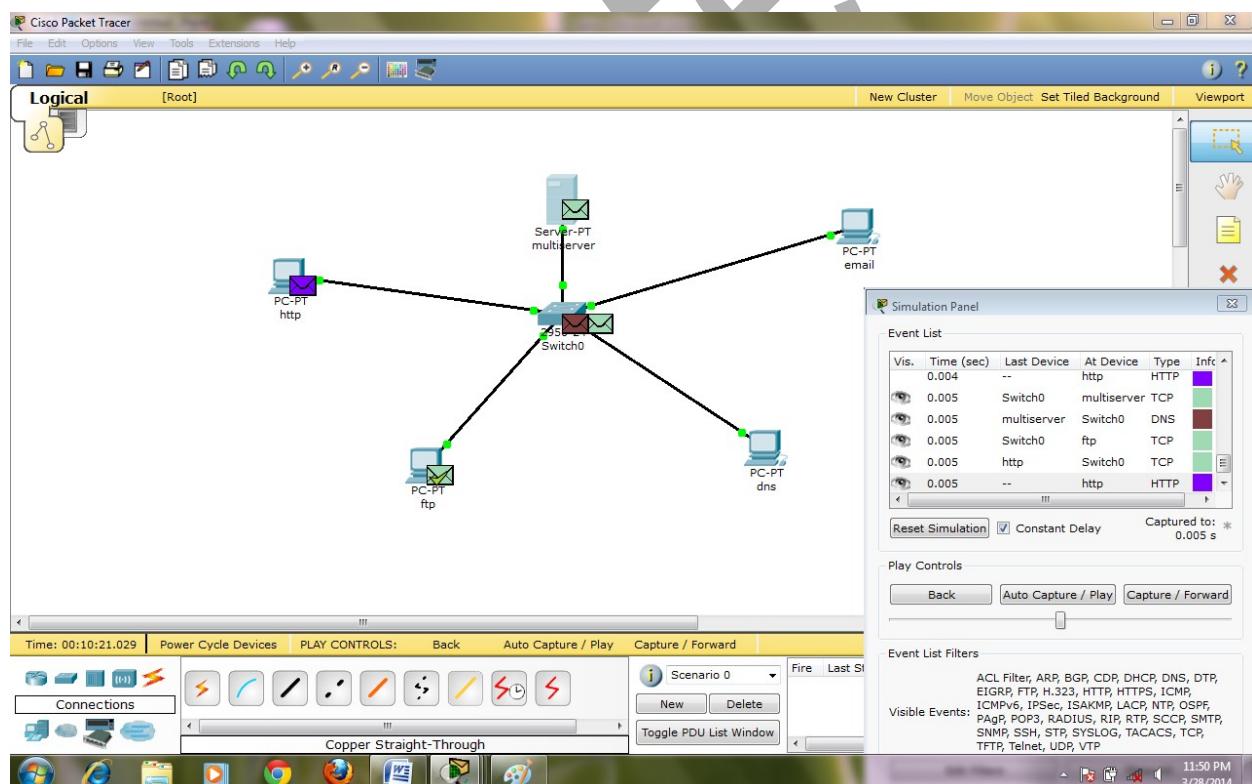


21] Go to simulation mode -> Click on capture and forward ->then click again capture and forward

A] http client:-

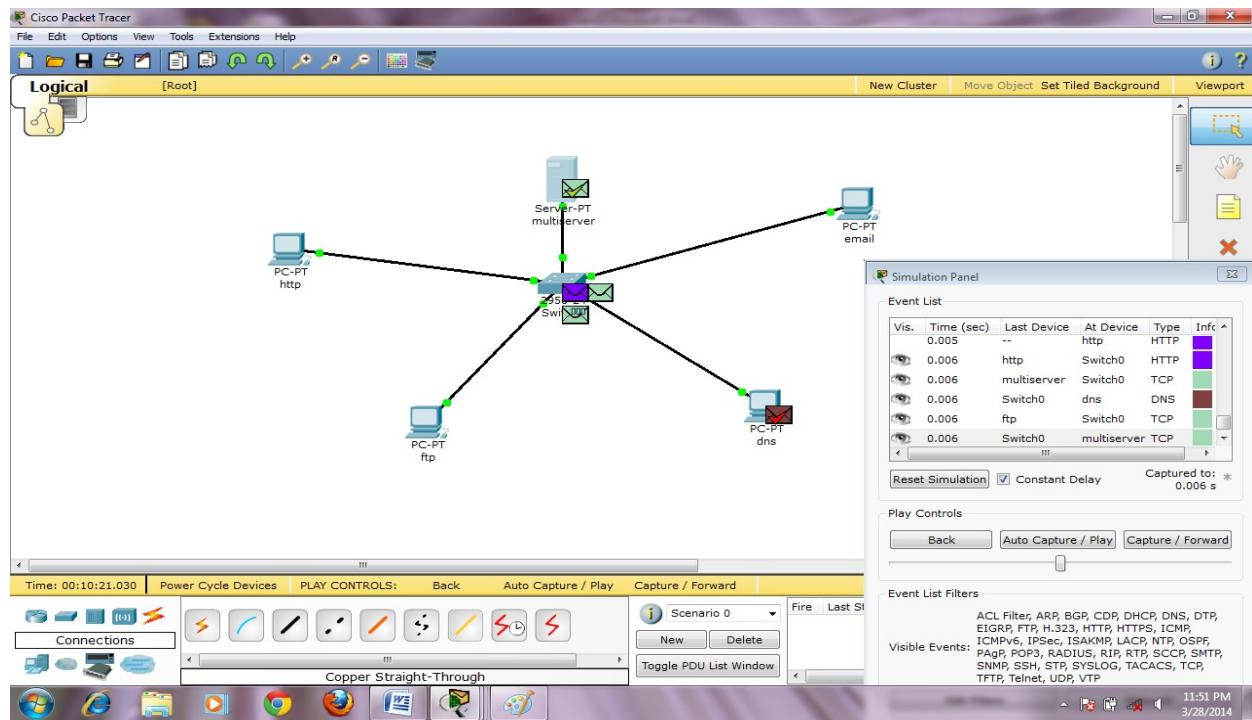


B] ftp client:-

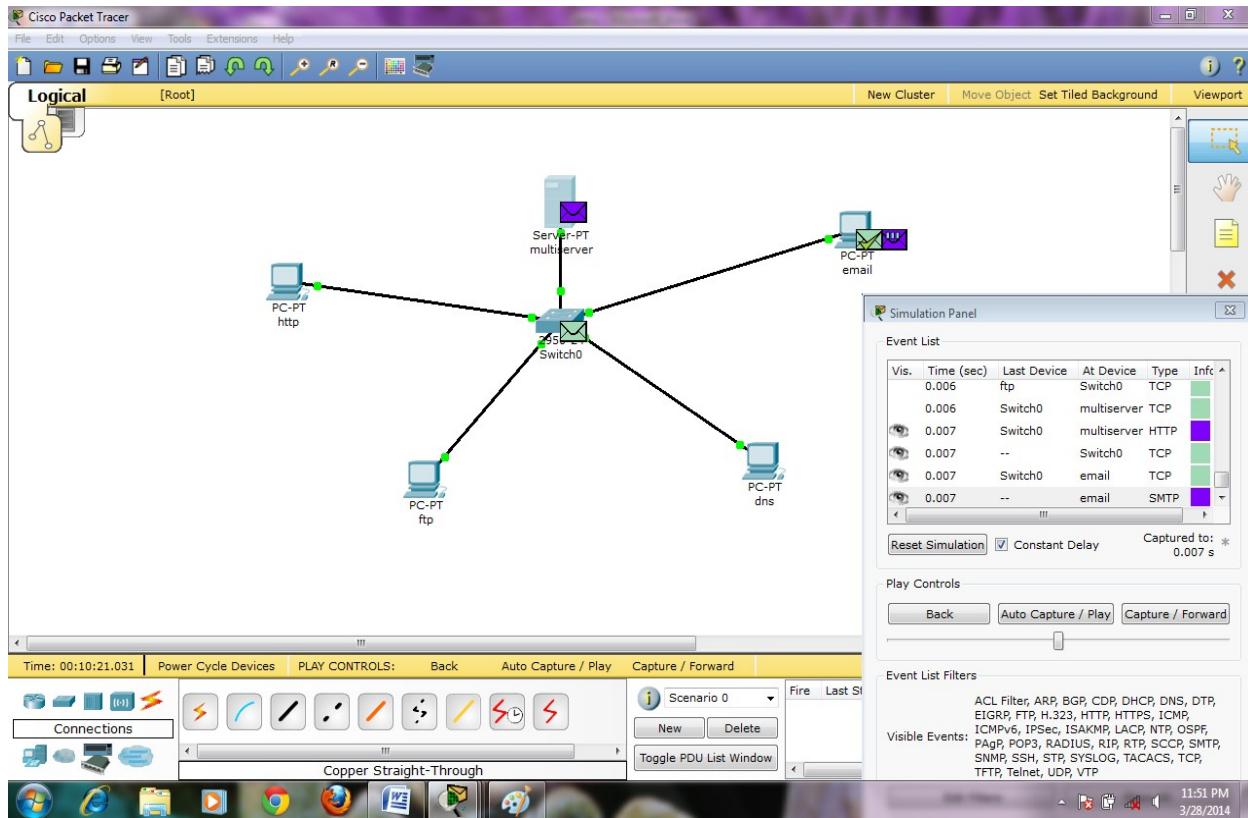


C] Dns client:-

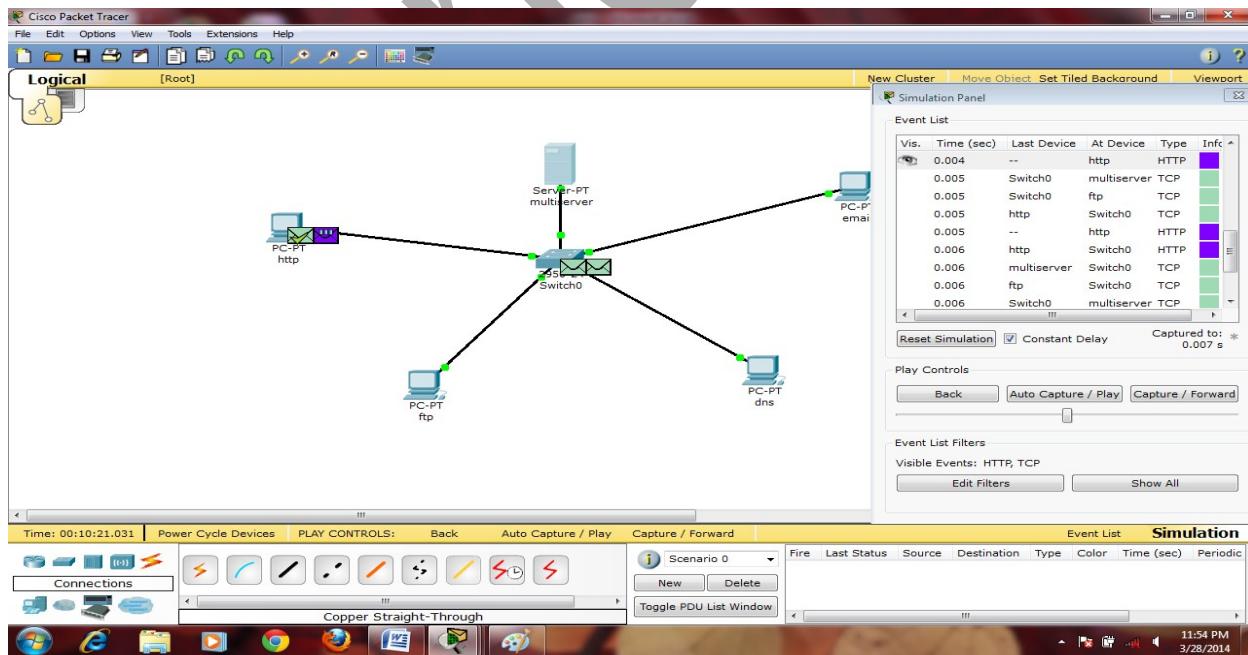
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D] Email client:-

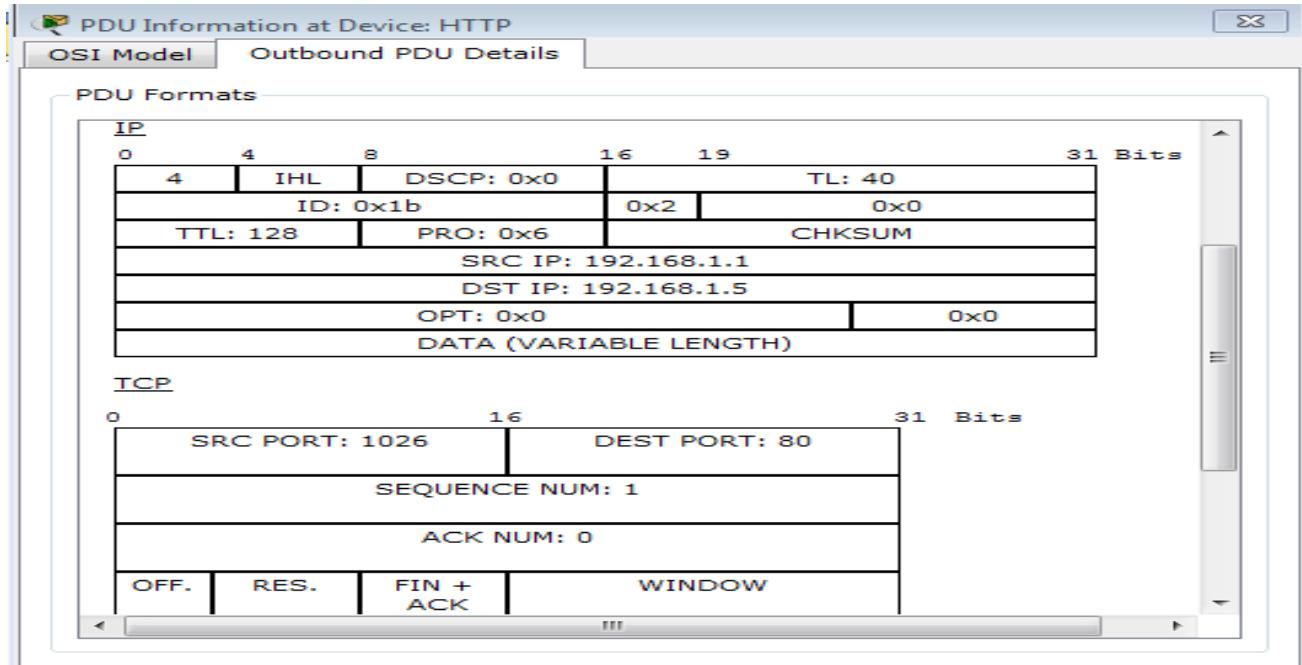


22] Now Edit filter -> unchecked the checkbox show all->select http,tcp->capture and forward

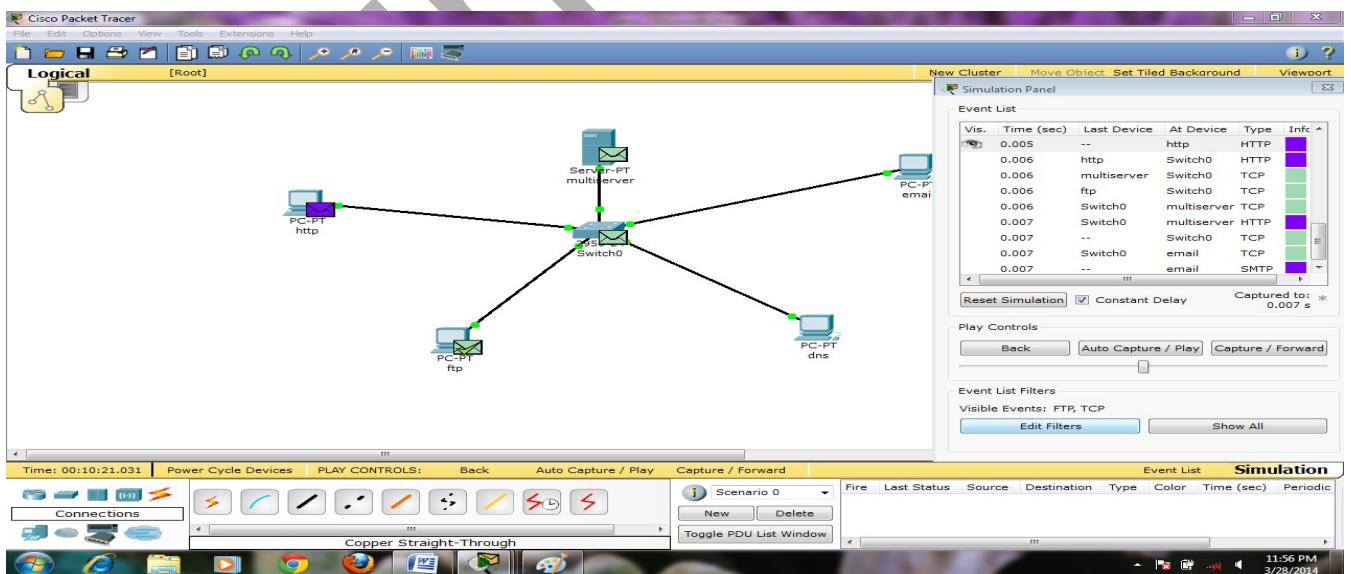


23] click on inbound PDU details

A] http:-

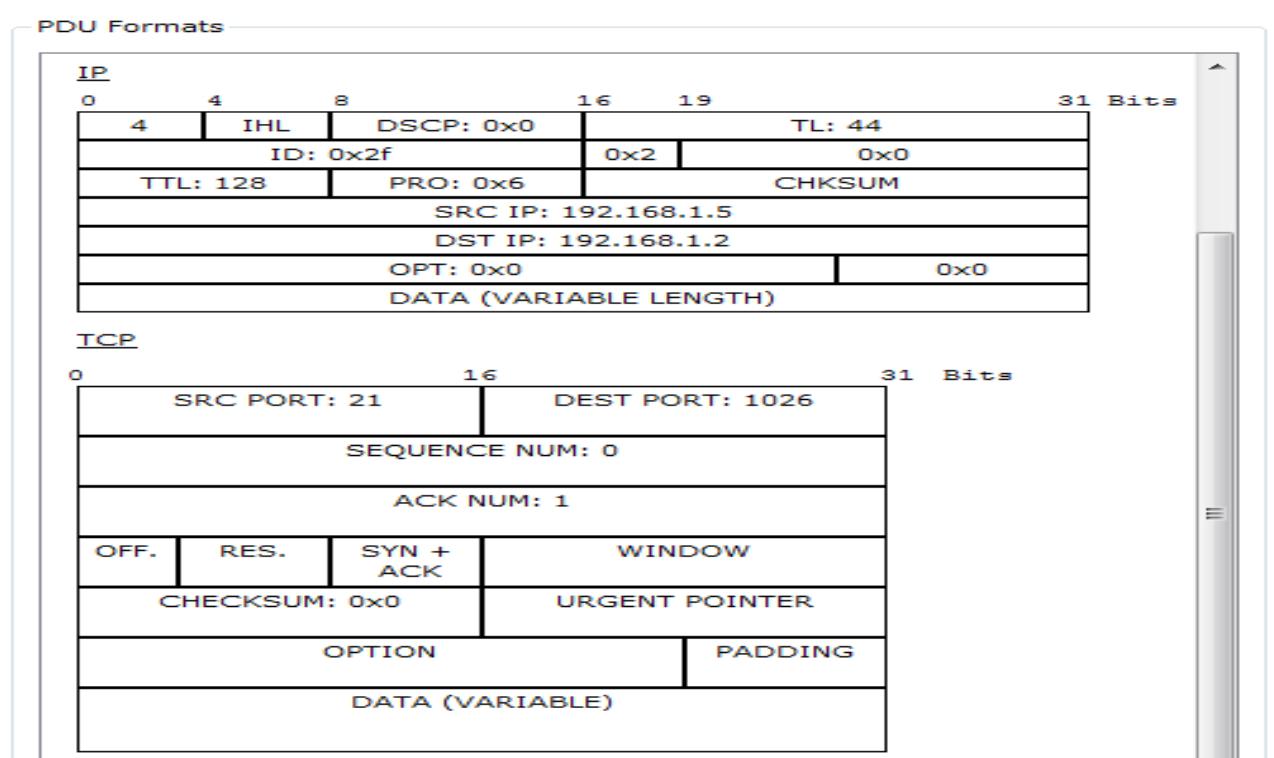


24] Edit filter -> unchecked the checkbox show all ->select ftp,tcp->capture and forward

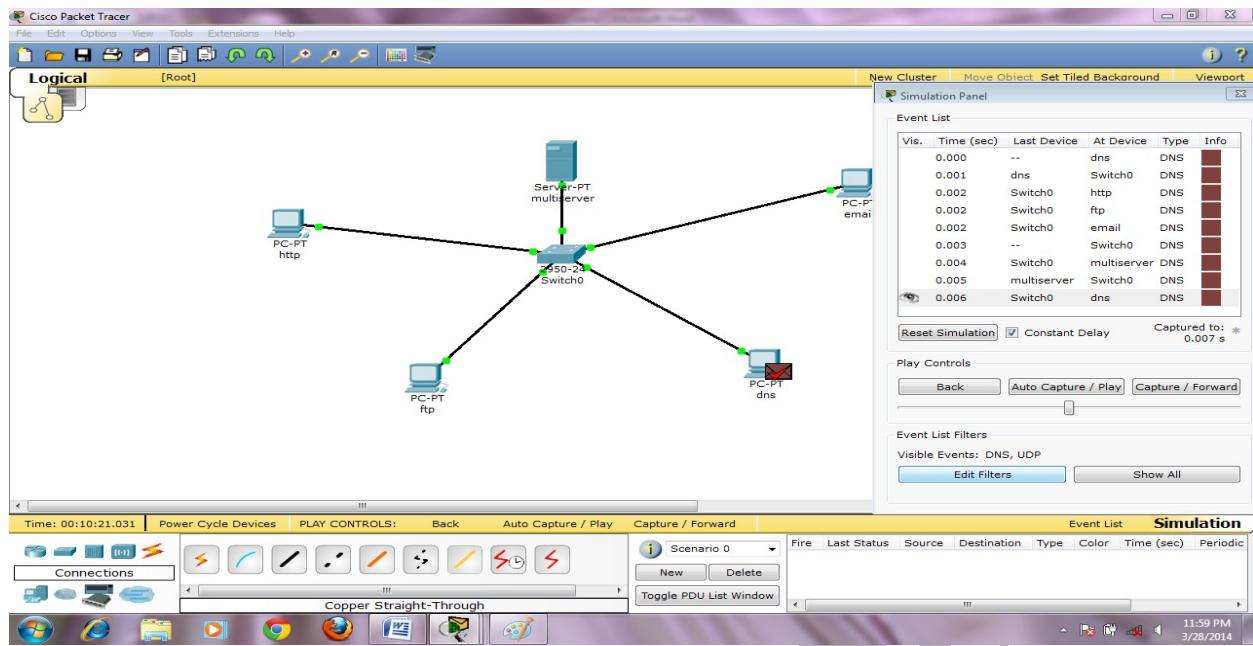


23] click on inbound PDU details

B] Ftp:-

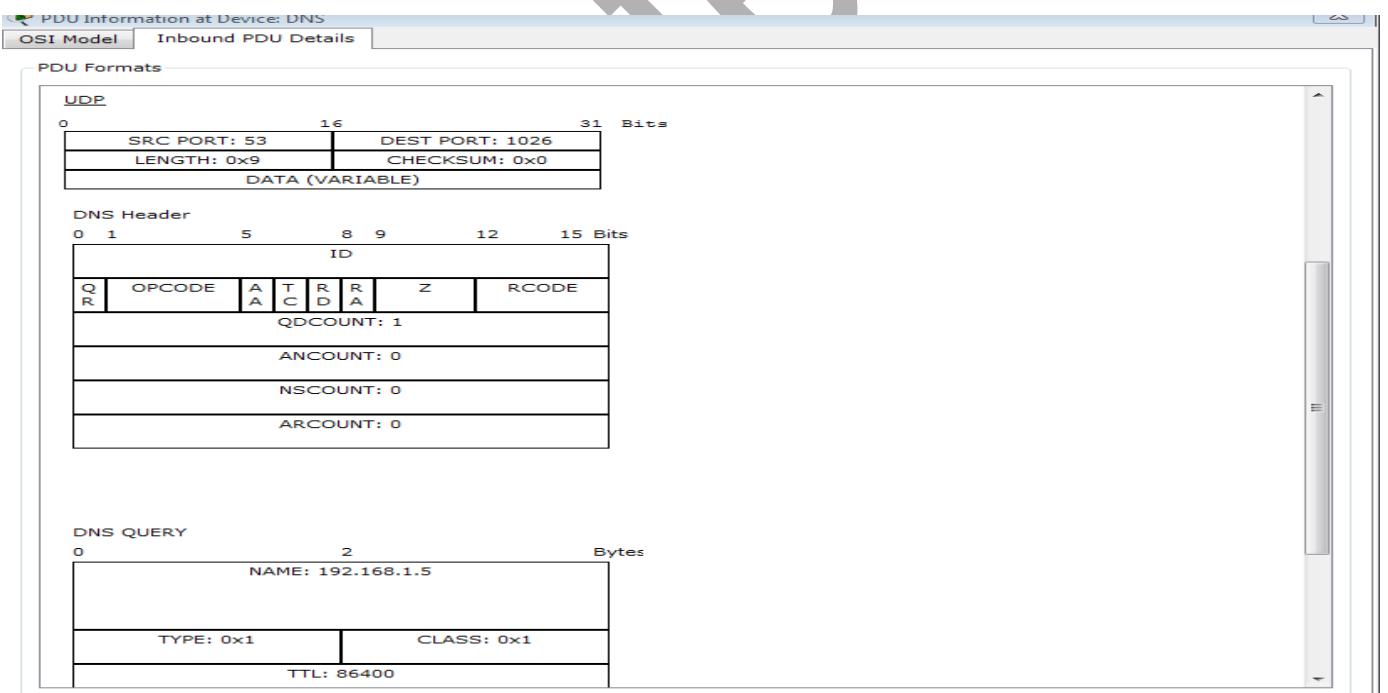


25] Edit filter -> unchecked the checkbox show all ->select udp,dns->capture and forward

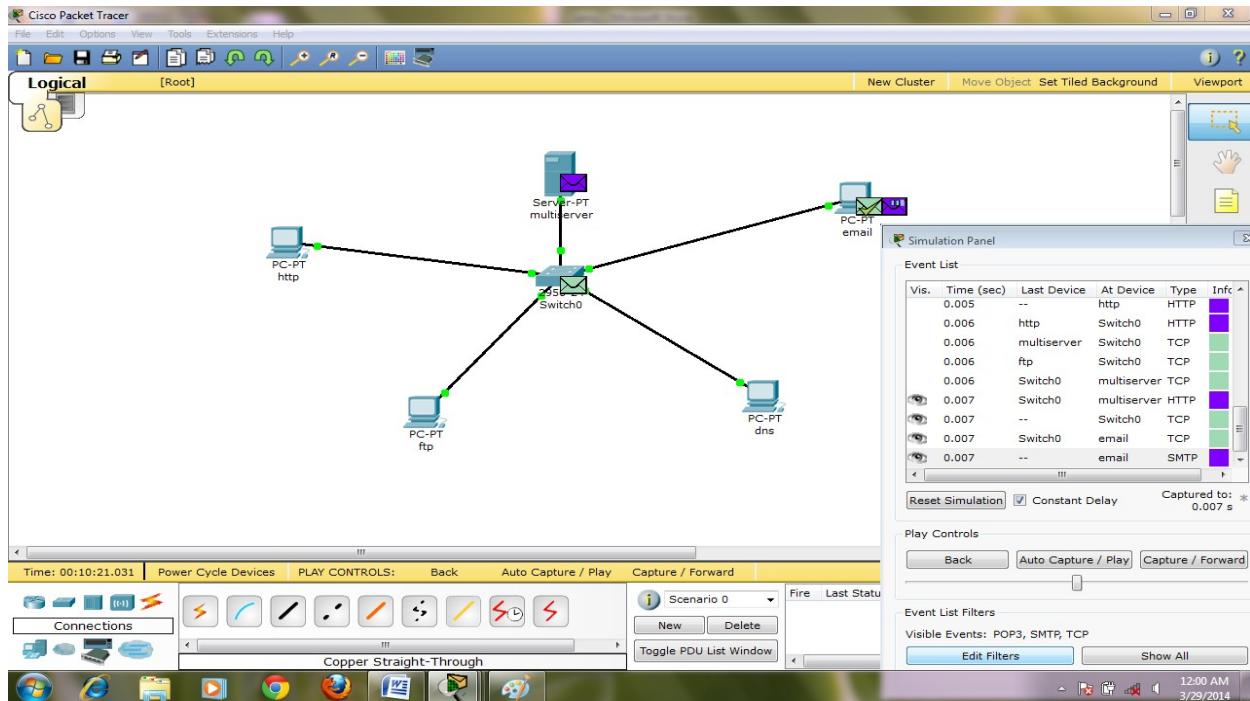


26] click on inbound PDU details

C] Dns:-

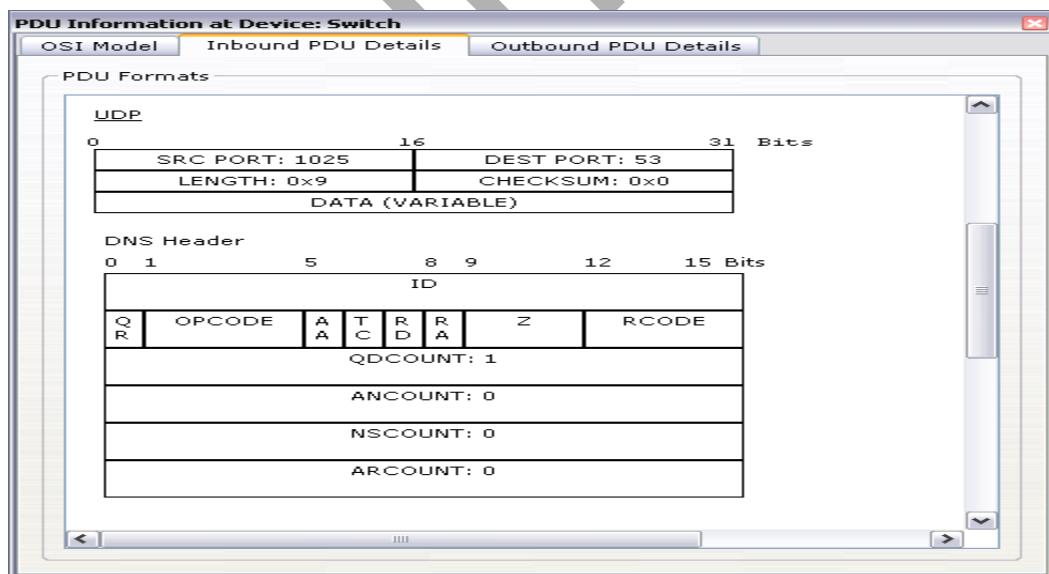


27] Edit filter -> unchecked the checkbox show all ->select pop3,smtp,tcp->capture and forward



28] click on inbound PDU details

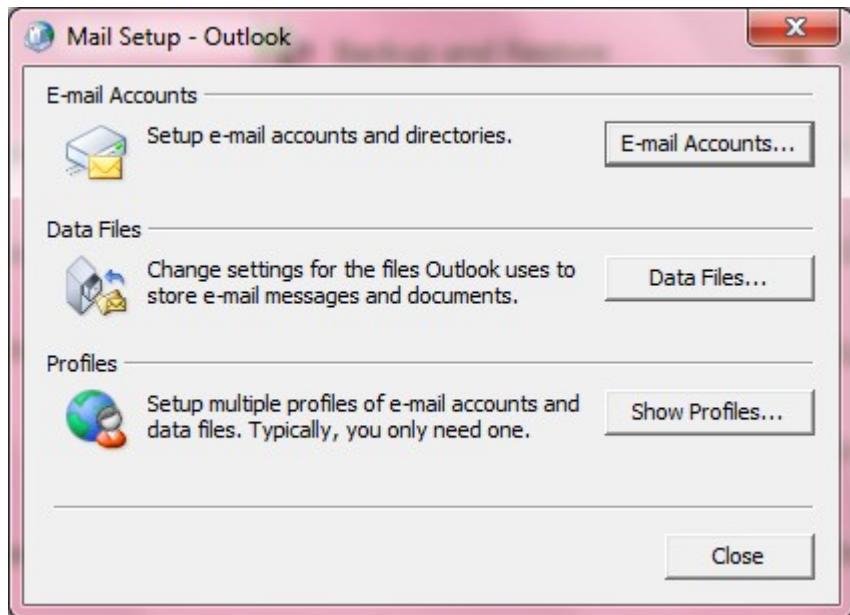
B] Email:-



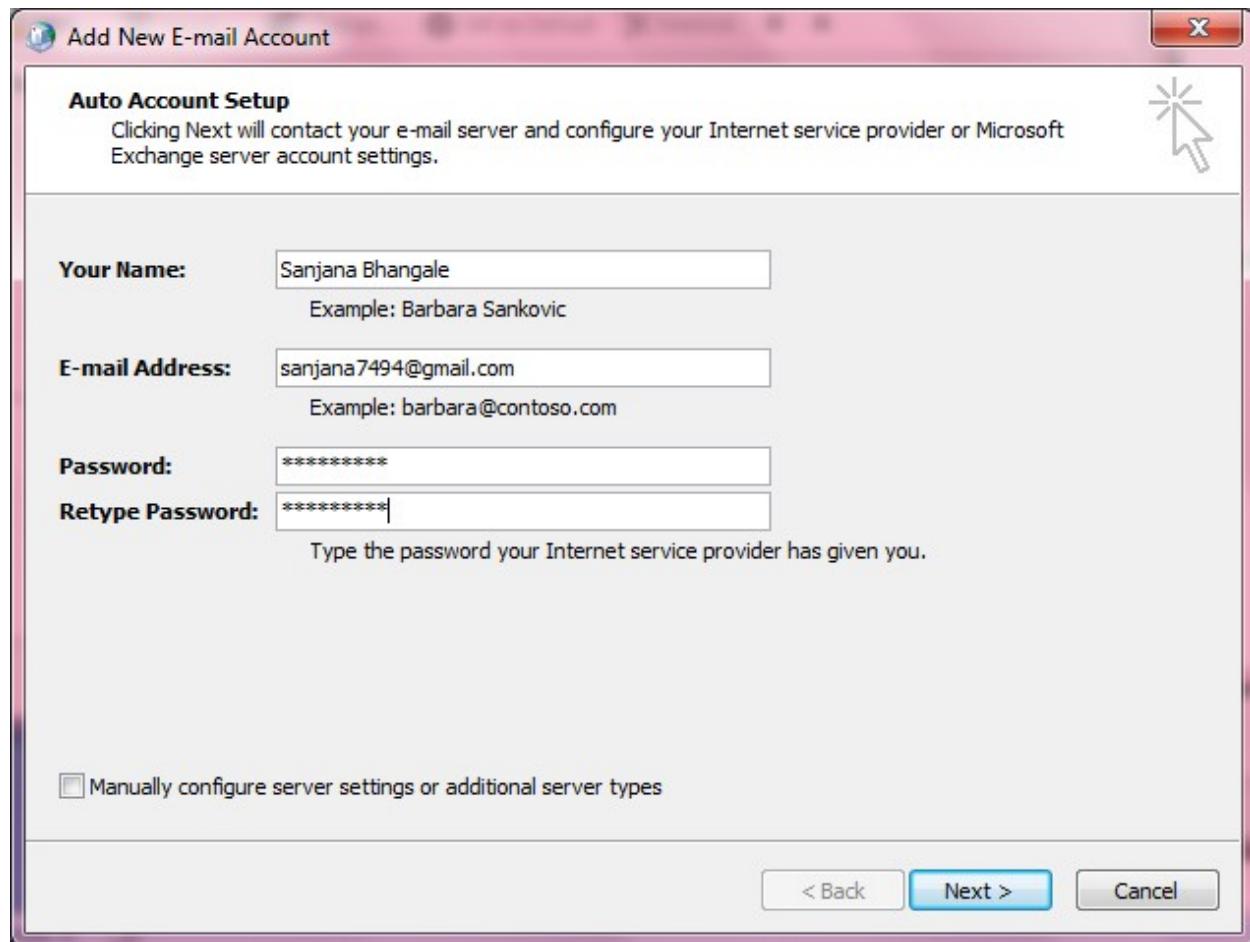
Practical –

Aim : Configure SMTP, POP3, IMAP and MIME.

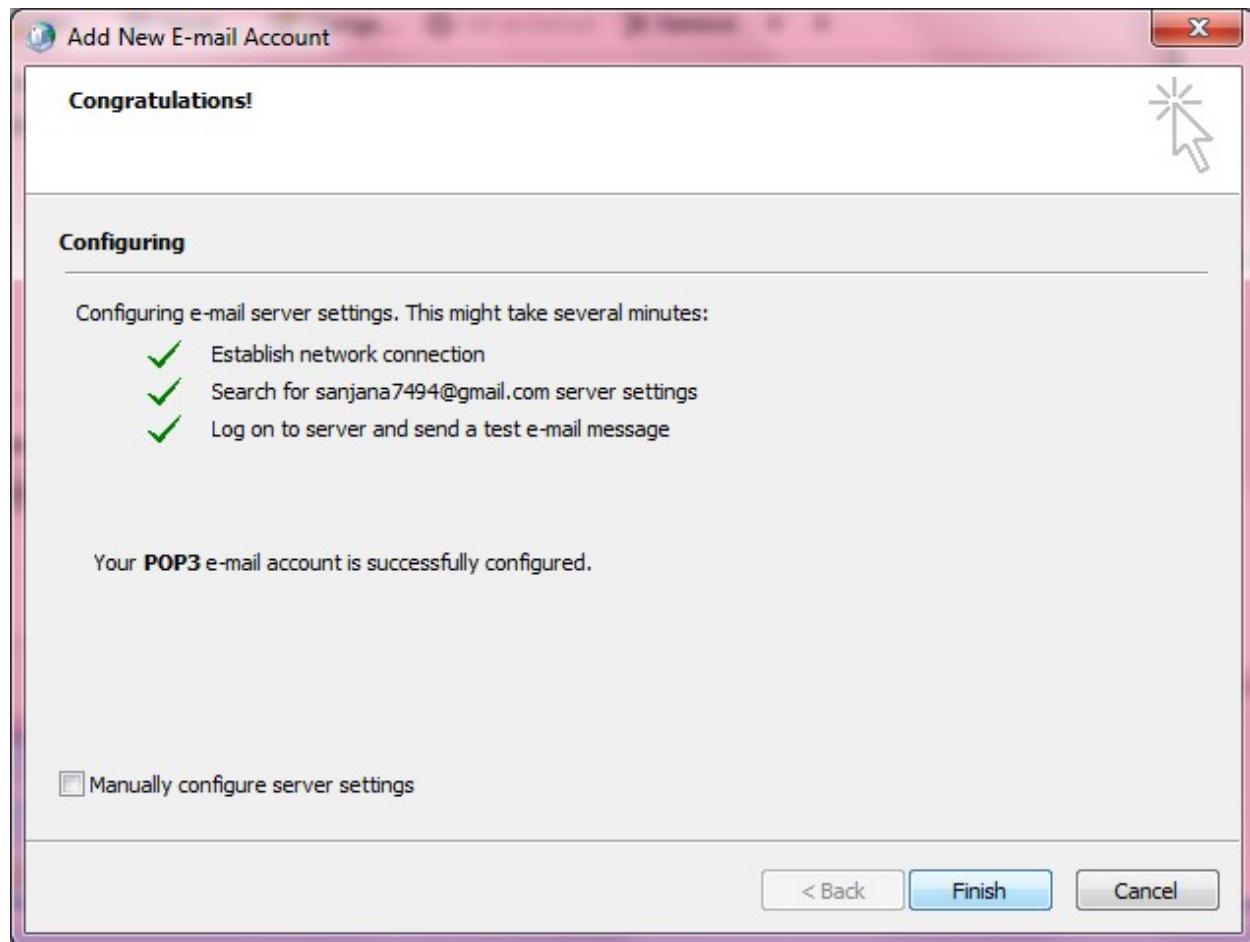
Step 1: Go to Control Panel->Mail Setup->E-Mail Accounts



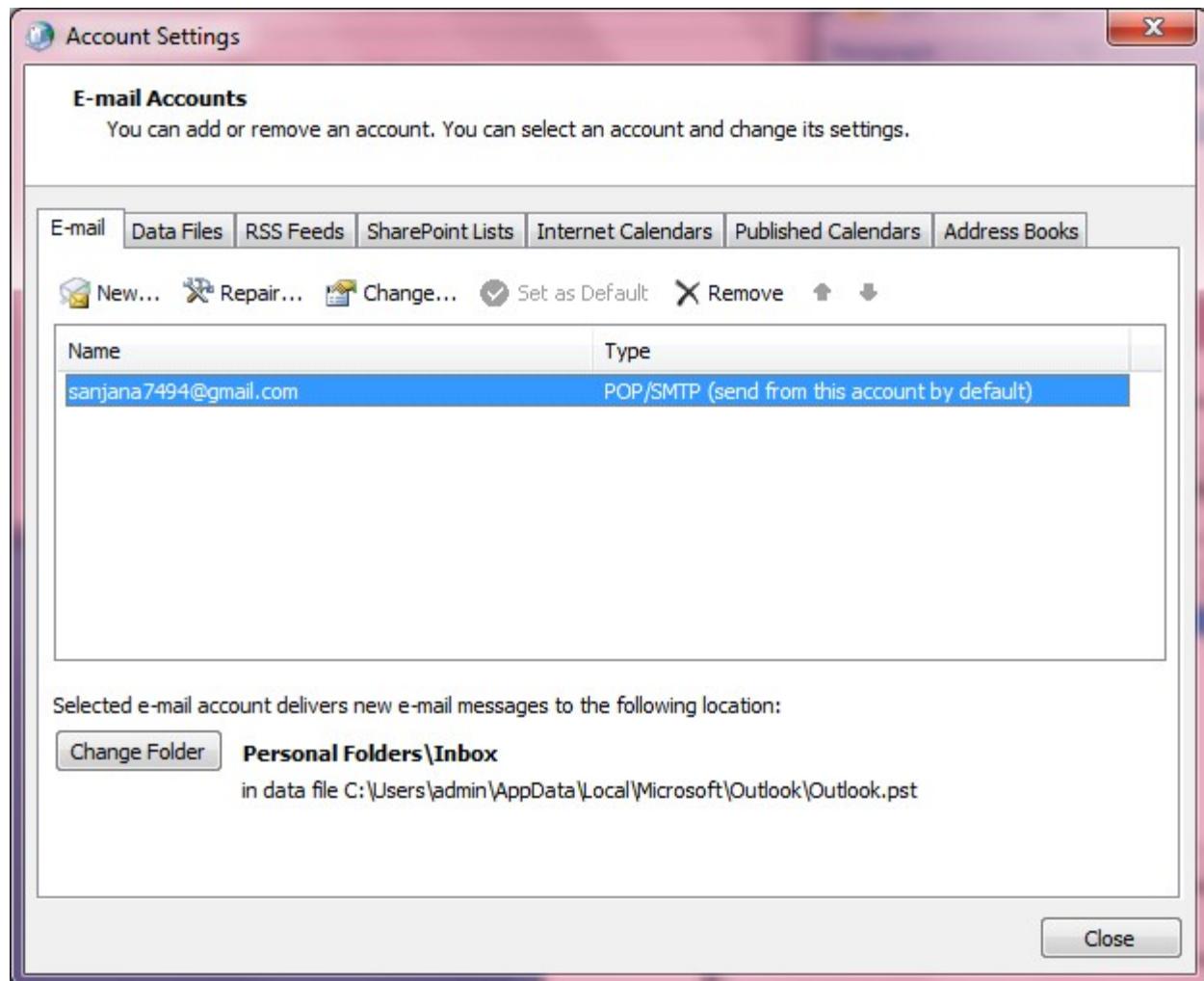
Step 2: Enter Name , Email address and password -> next



Step 3: Finish



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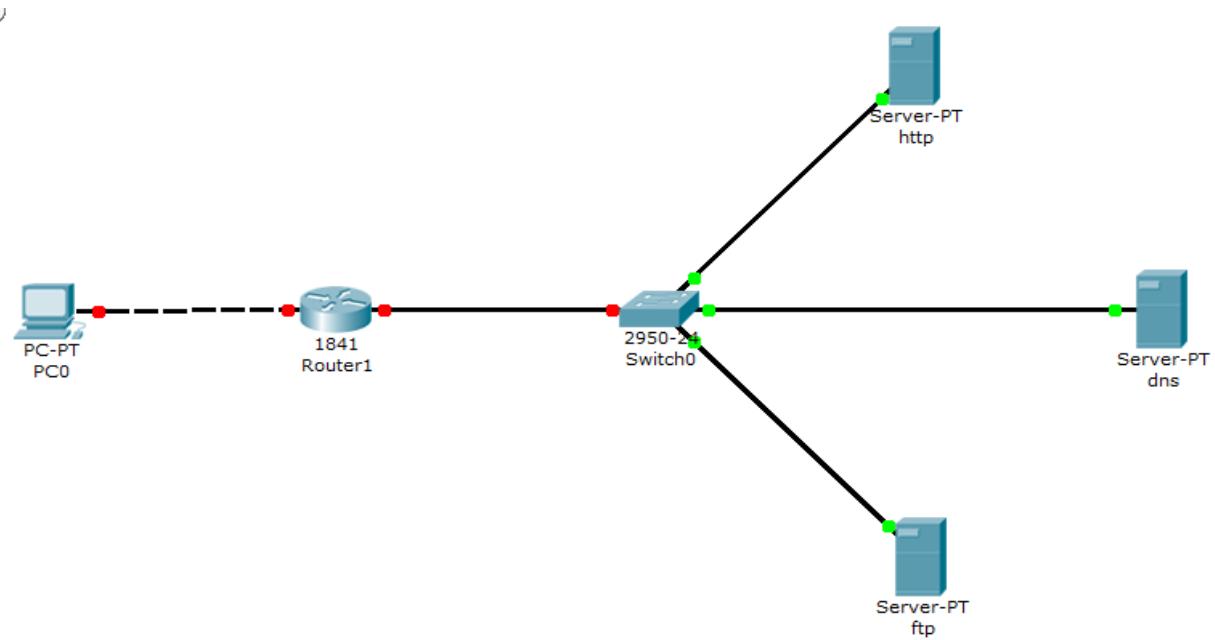


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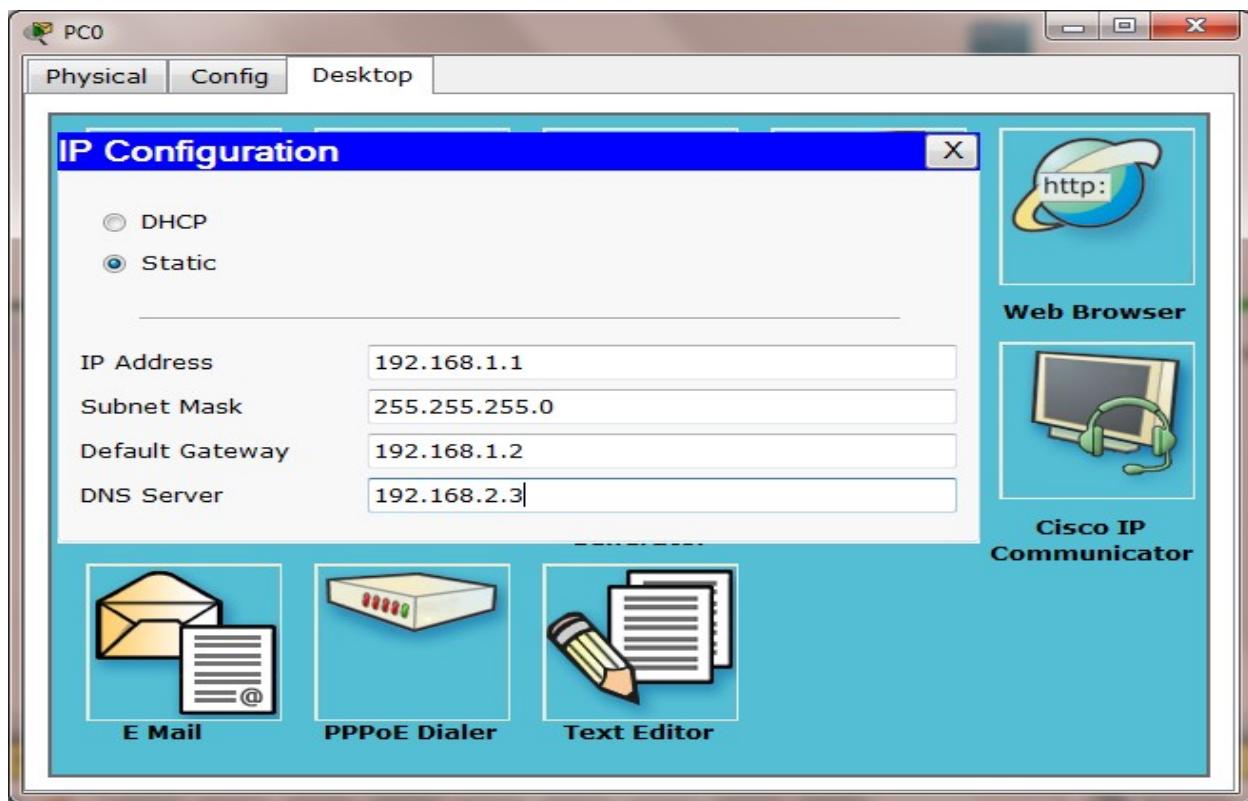
Step 4: Open Microsoft Office Outlook

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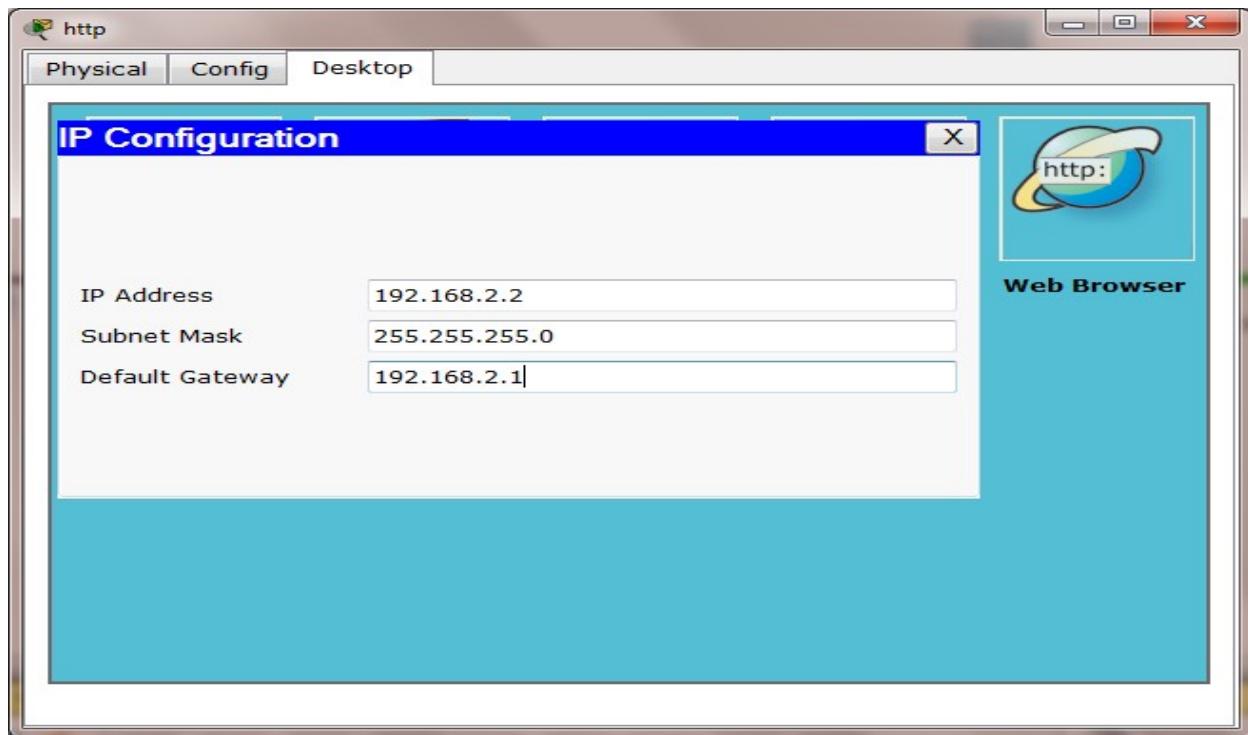
Practical No:-7



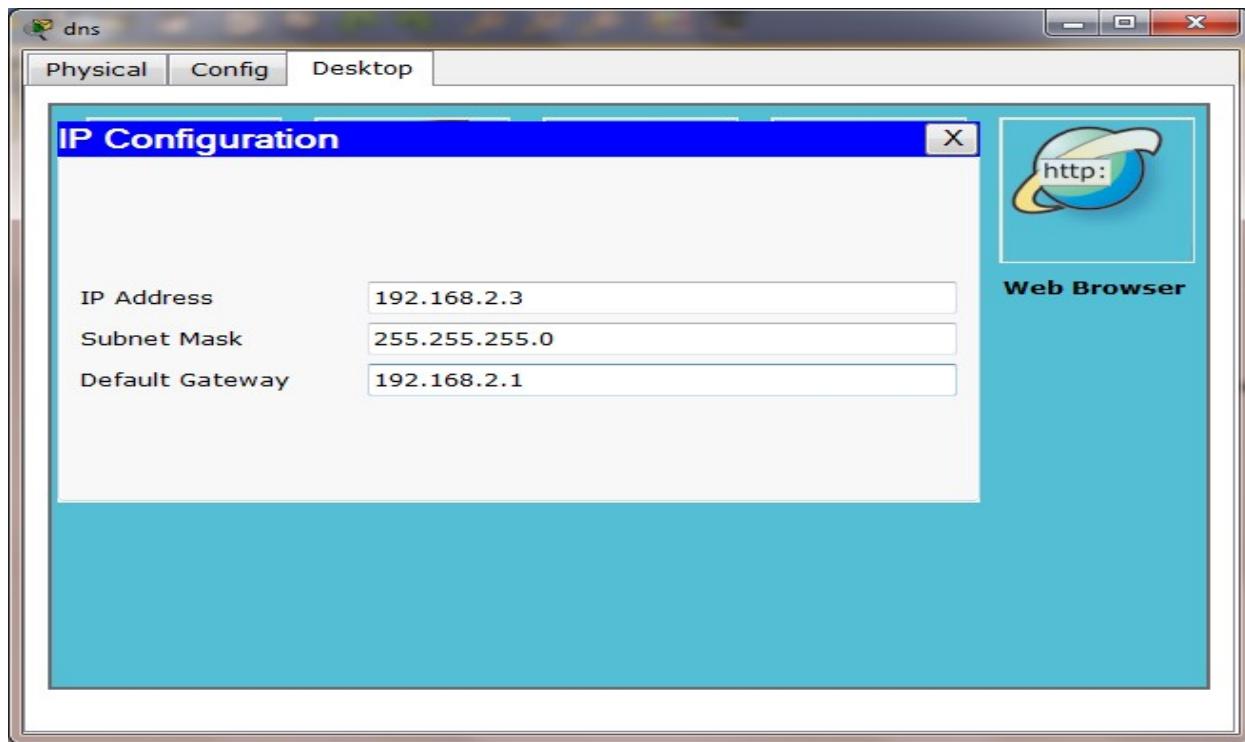
Step 1:-configuring PC0



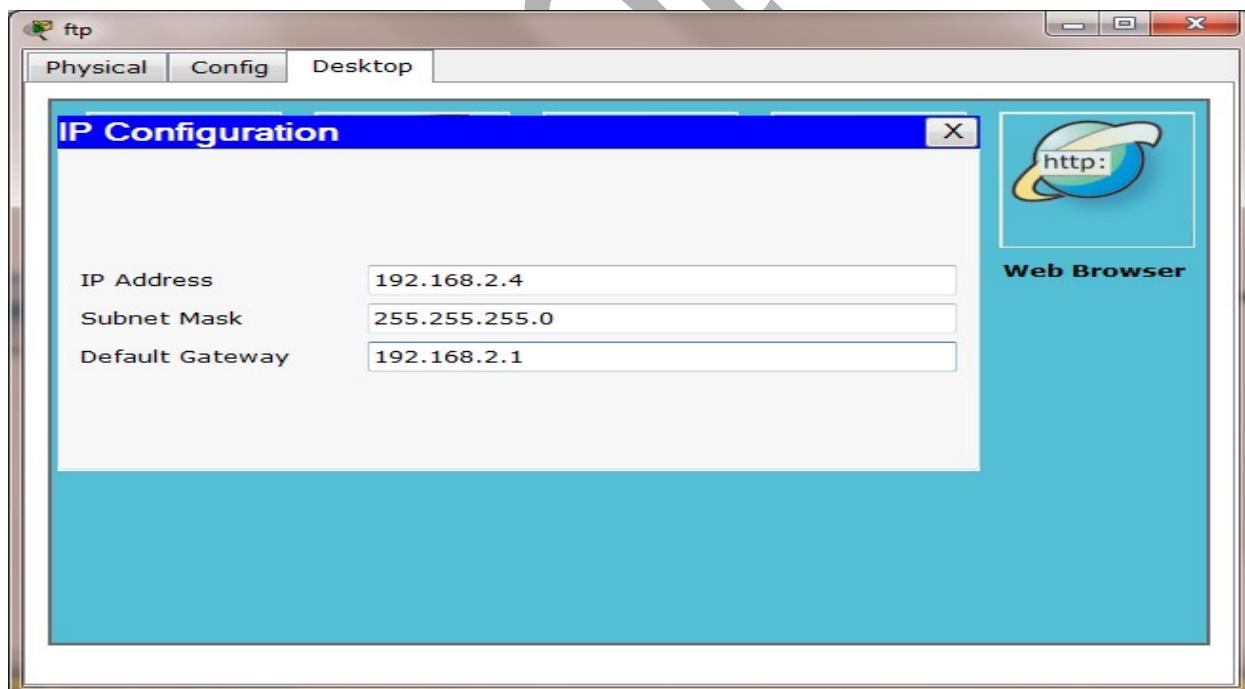
Step 2:-configuring HTTP



Step 3:-configuring DNS



Step 4:-configuring FTP



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Step 5:-configuring Router0

```
Router>en
```

```
Router#config t
```

```
Enter configuration commands, one per line. End with CNTL/Z.
```

```
Router(config)#hostname r1
```

```
r1(config)#interface f0/0
```

```
r1(config-if)#ip address 192.168.1.2 255.255.255.0
```

```
r1(config-if)#no shut
```

```
%LINK-5-CHANGED: Interface FastEthernet0/0, changed state to up
```

```
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0, changed state to up
```

```
r1(config-if)#exit
```

```
r1(config)#interface f0/1
```

```
r1(config-if)#ip address 192.168.2.1 255.255.255.0
```

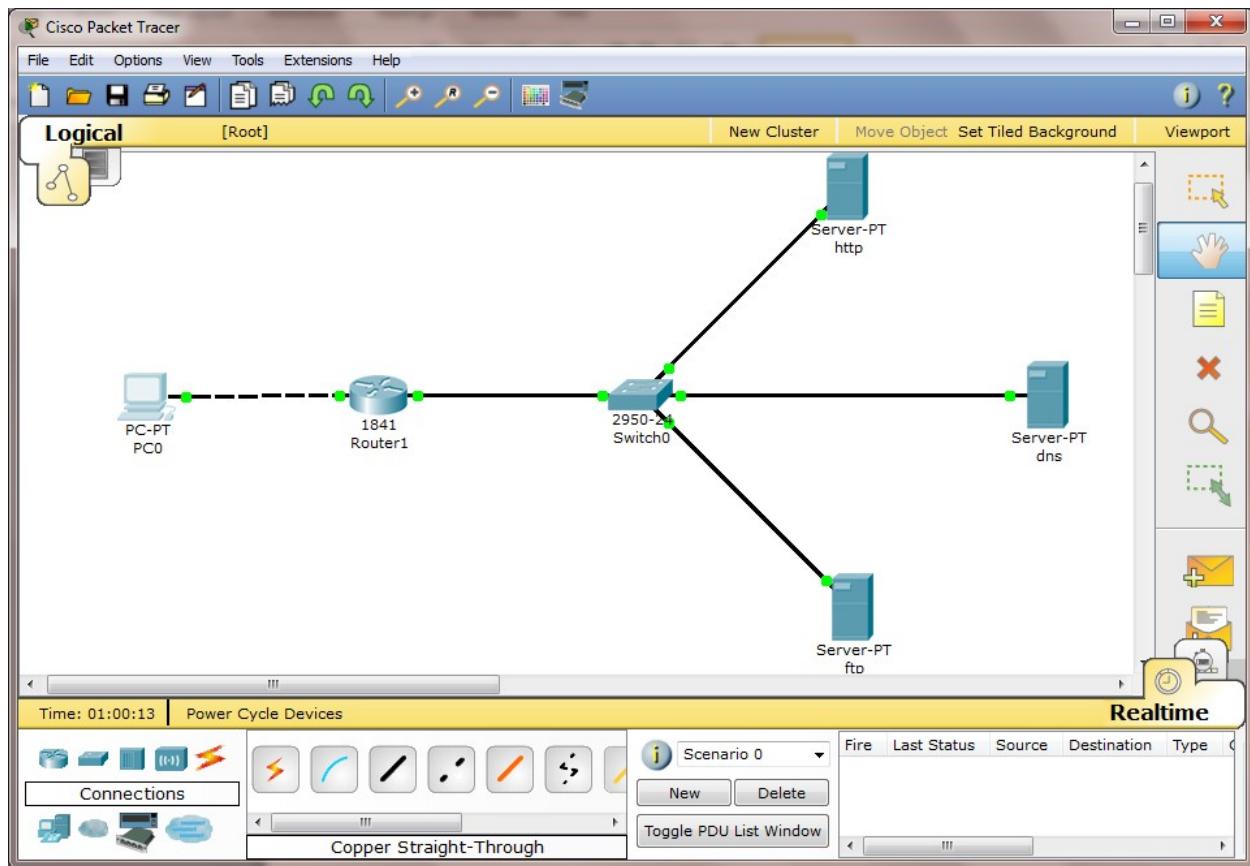
```
r1(config-if)#no shut
```

```
%LINK-5-CHANGED: Interface FastEthernet0/1, changed state to up
```

```
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/1, changed state to up
```

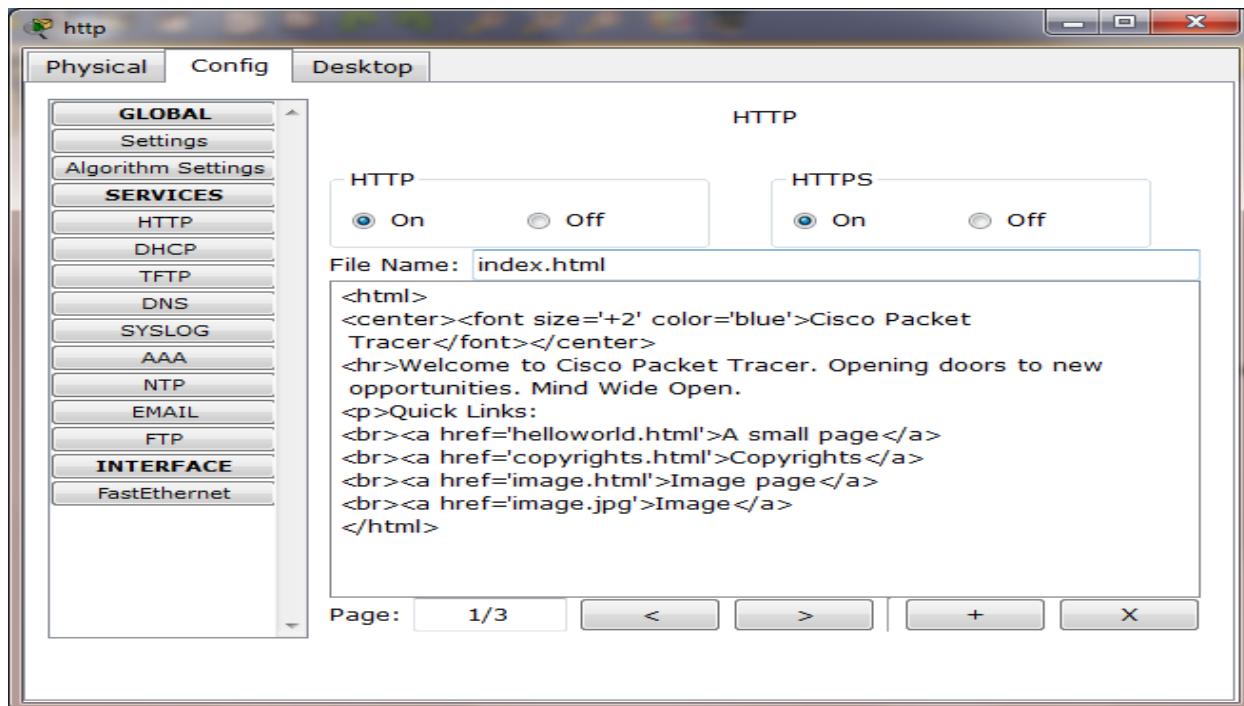
```
r1(config-if)#exit
```

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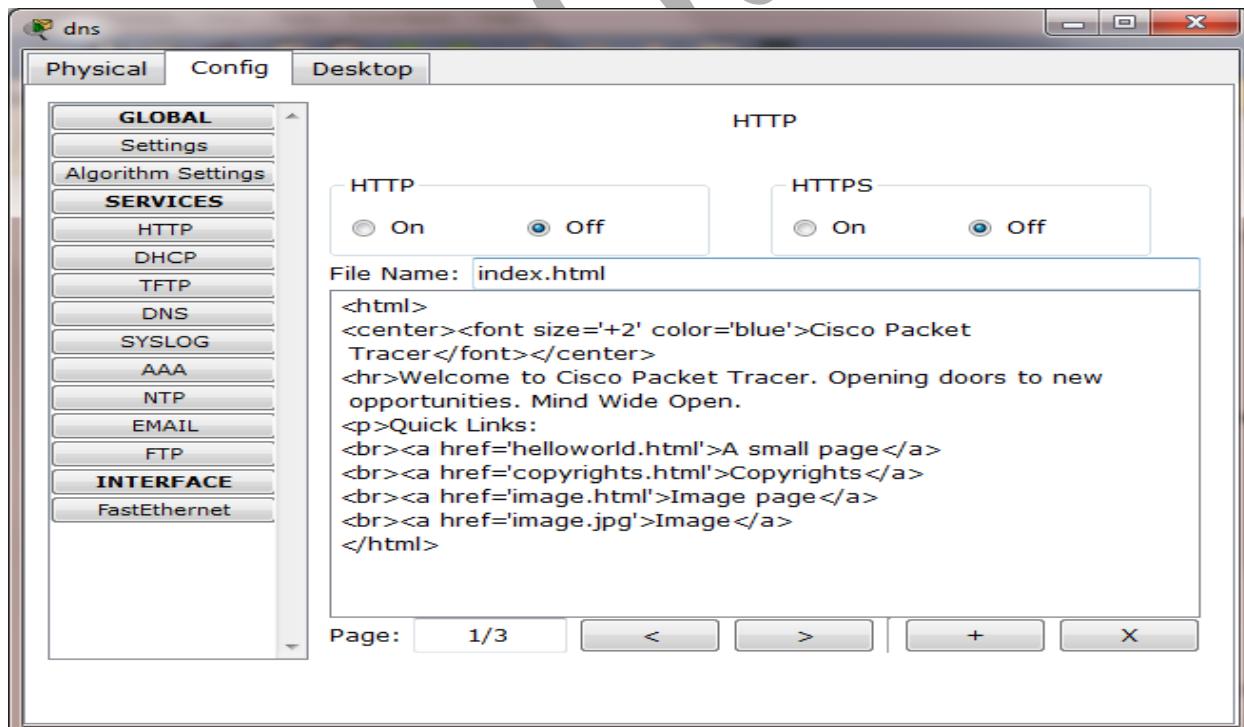


Step 6:-configuring HTTP -> Check if it is on

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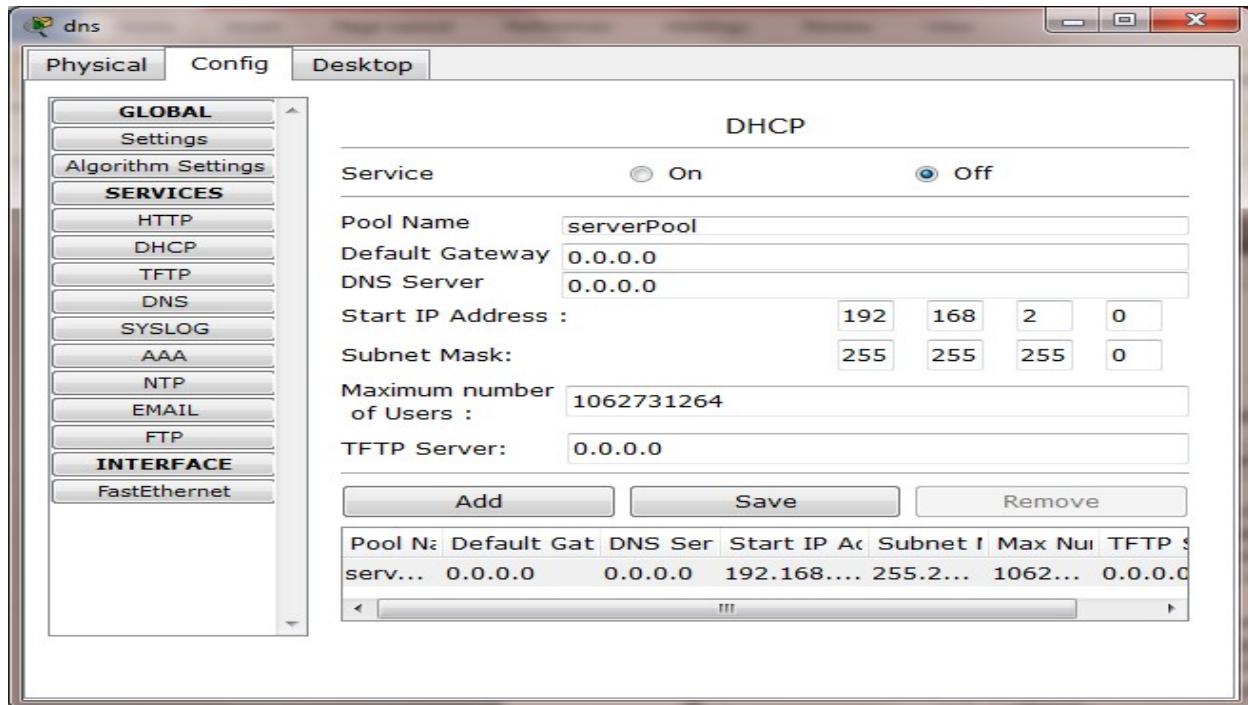


Step 7:-configuring DNS -> Check if HTTP is off



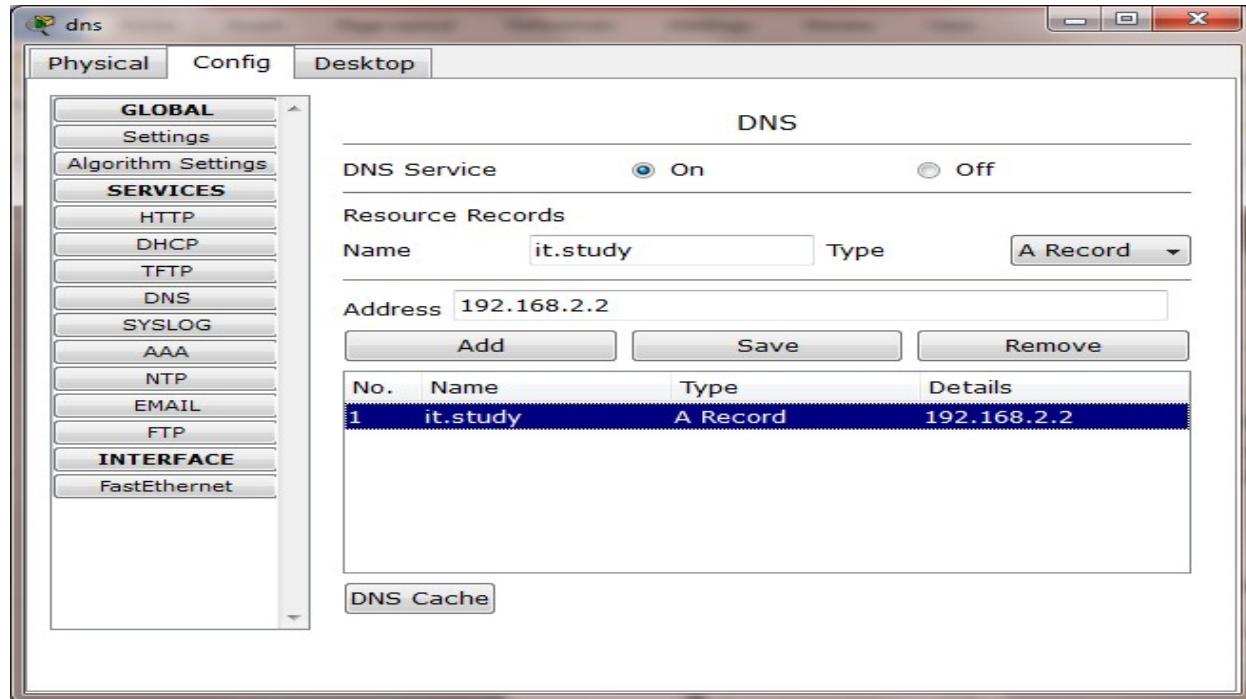
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Step 8:-configuring DNS -> Check if DHCP is off

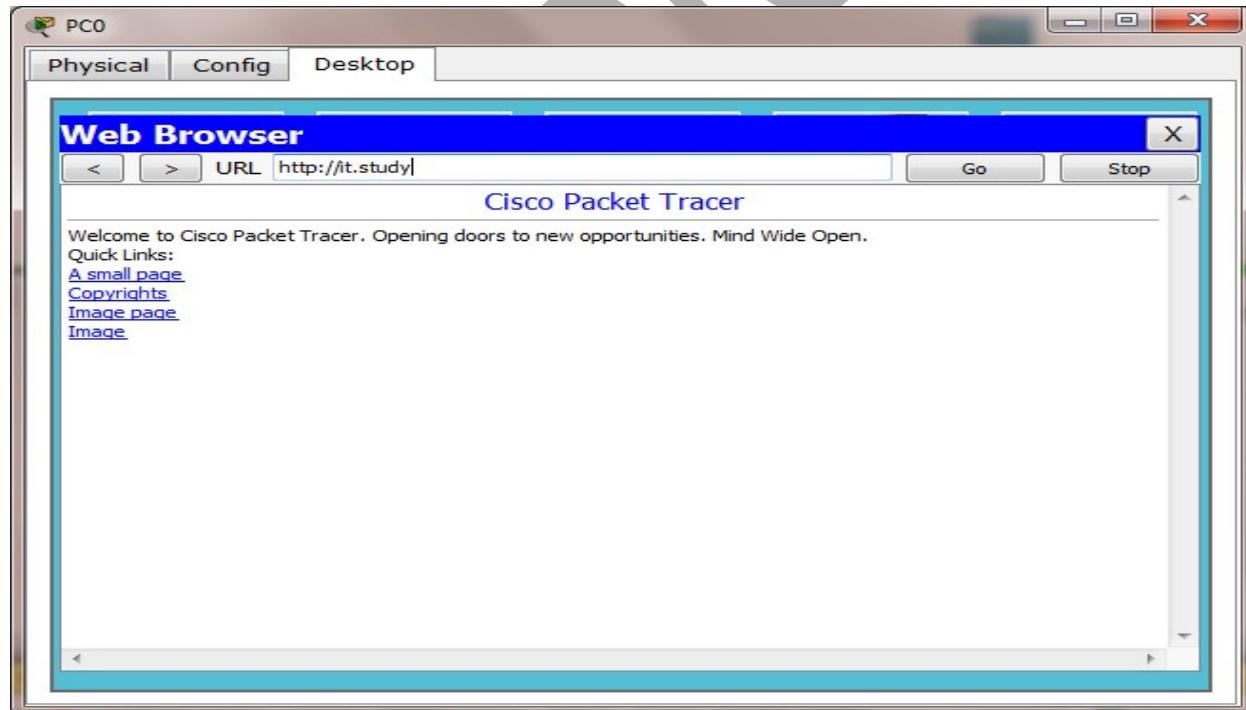


Step 9:-configuring DNS -> Check if DNS is On -> add name and address

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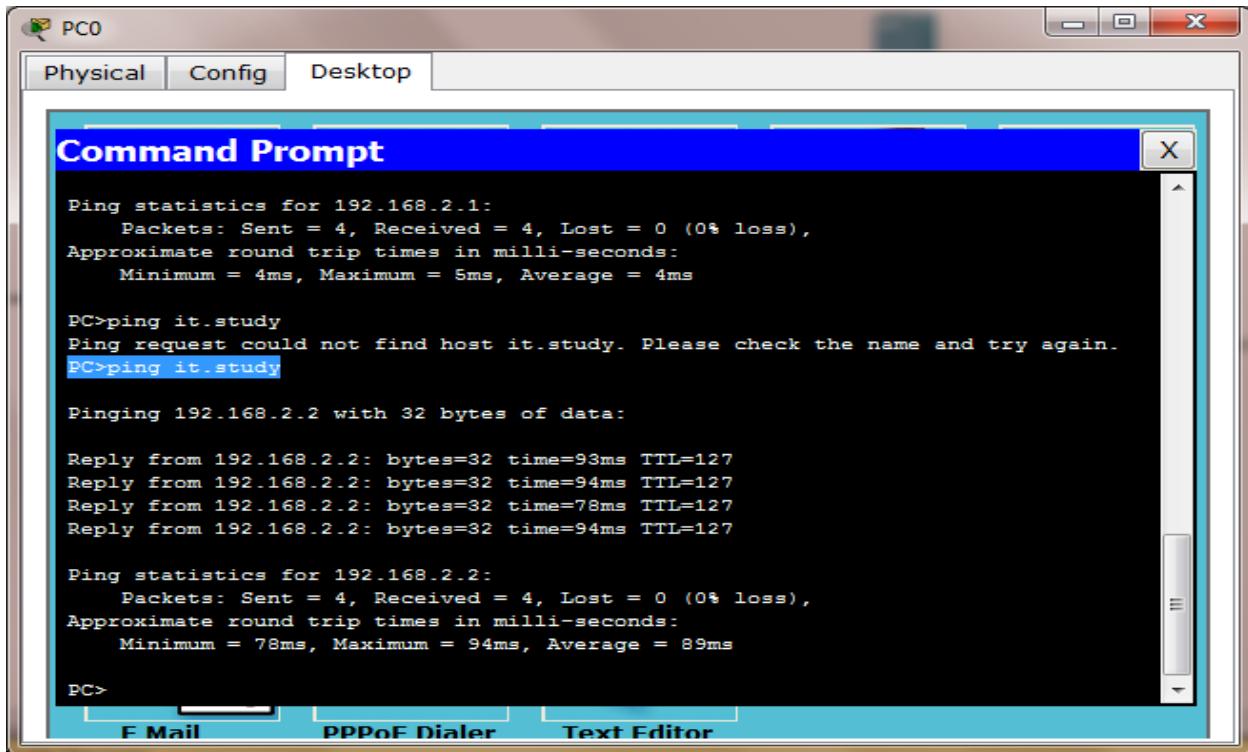


Step 10:-PC0 -> Desktop -> Web Browser -> Type url <http://it.study>

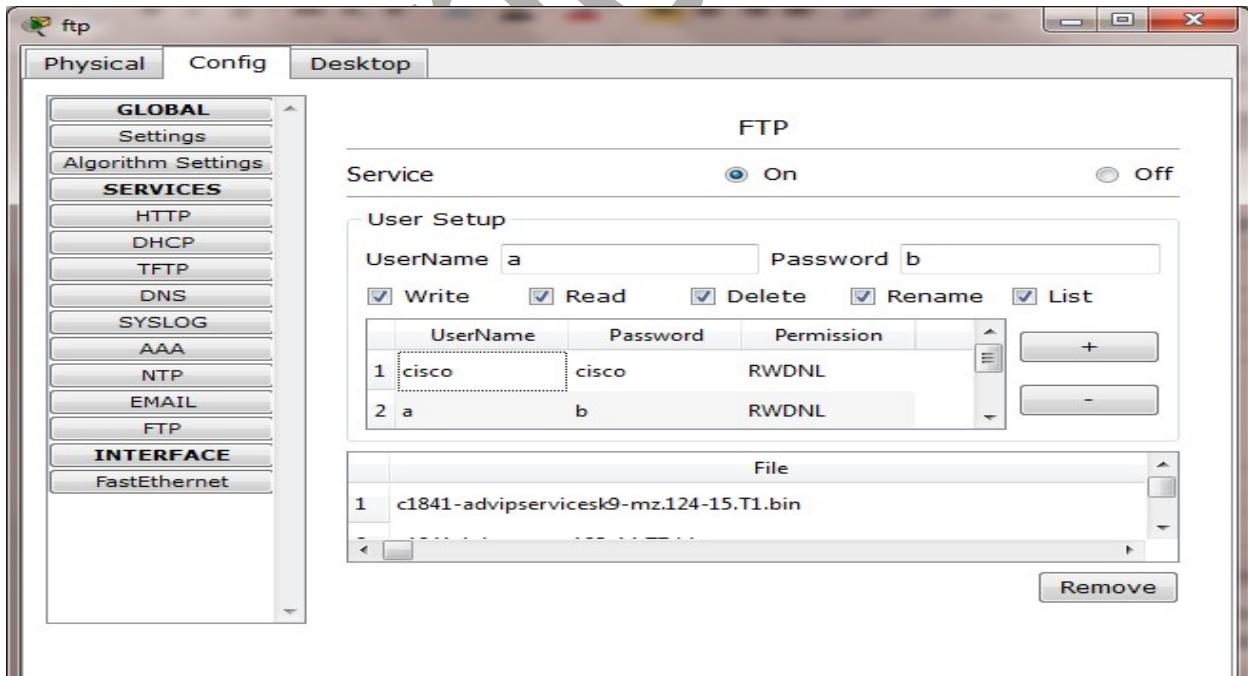


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Step 11:-configuring PC0 -> Desktop -> Command Prompt -> Ping it.study

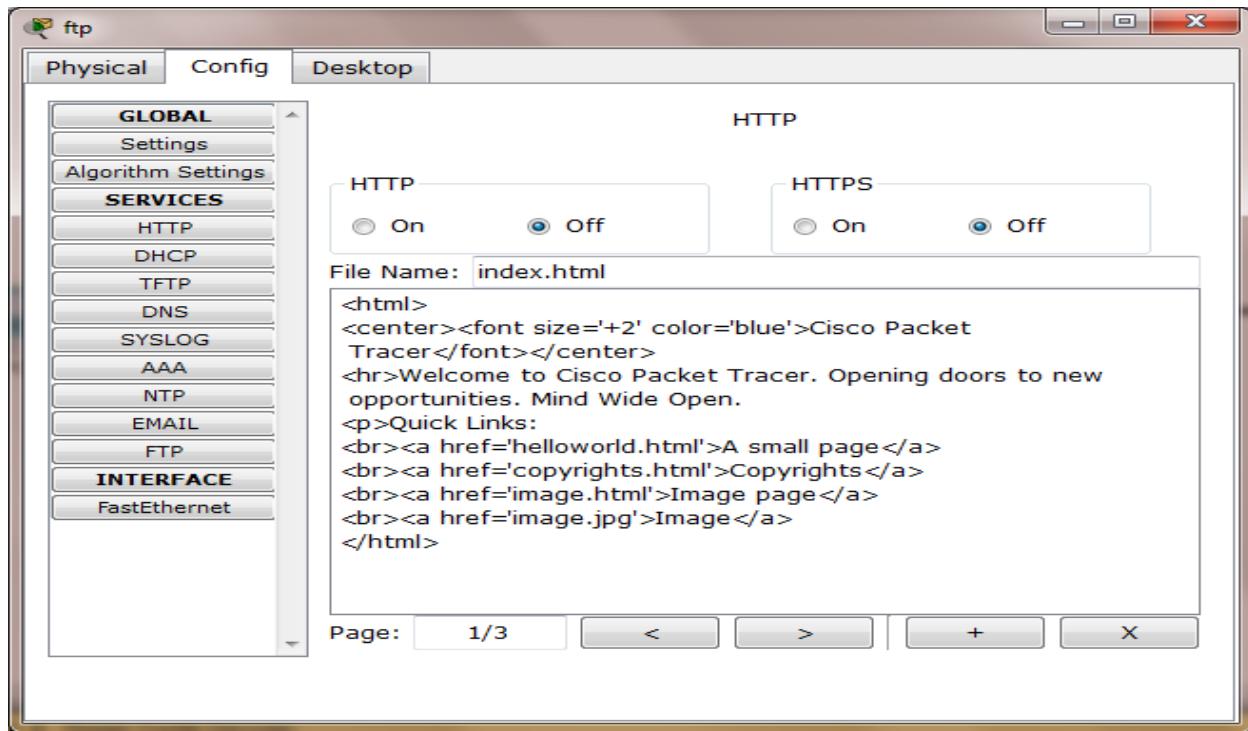


Step 12:-configuring FTP

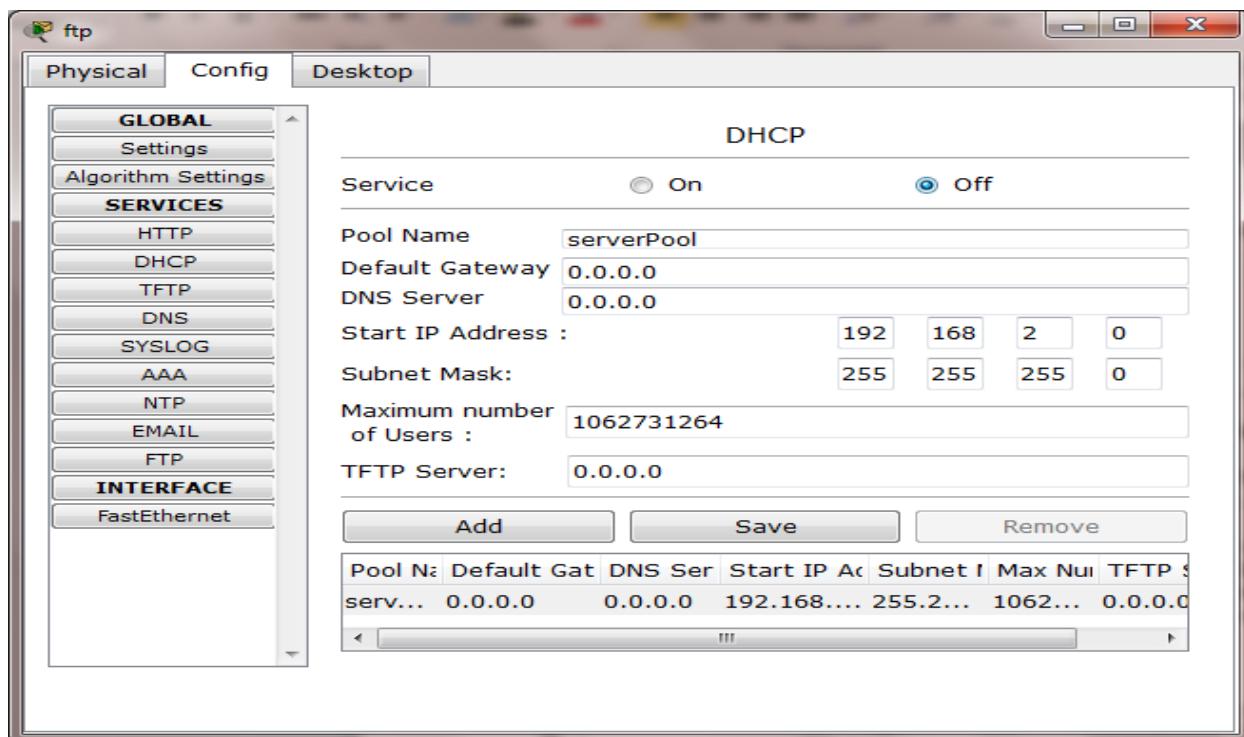


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Step 13:-configuring HTTP in FTP -> Check if HTTP is off

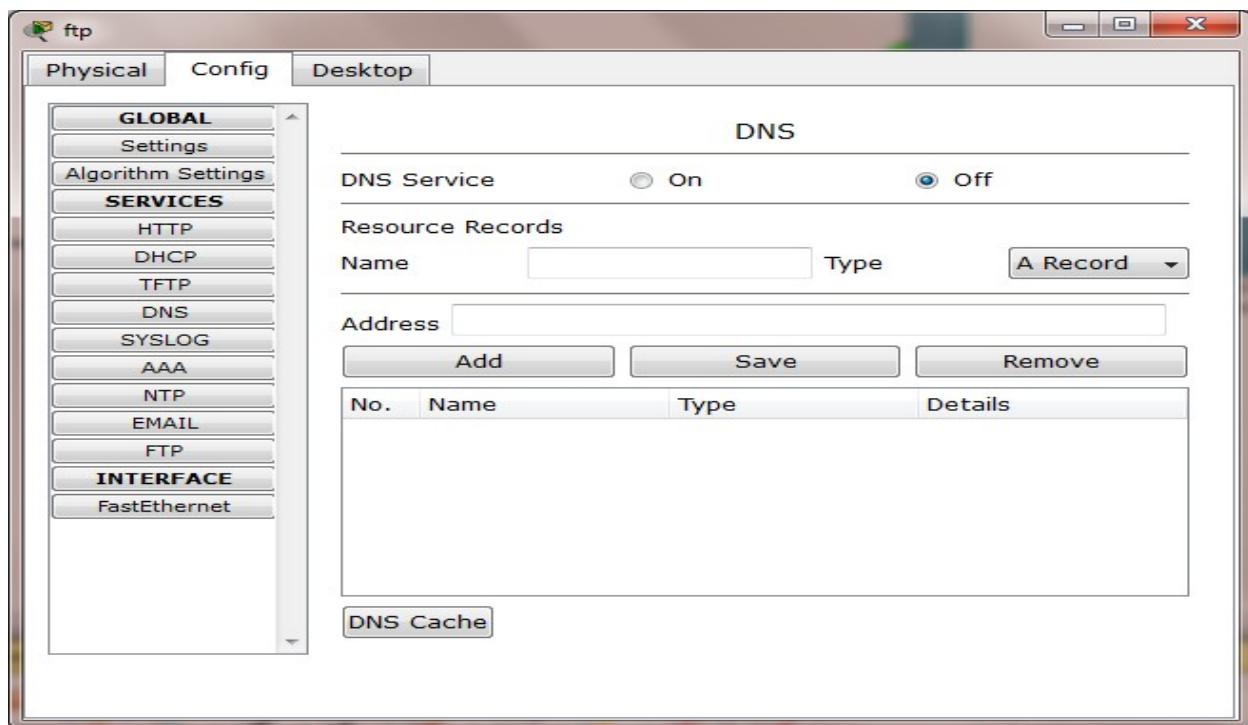


Step 14:-configuring DHCP in FTP -> Check if DHCP is off

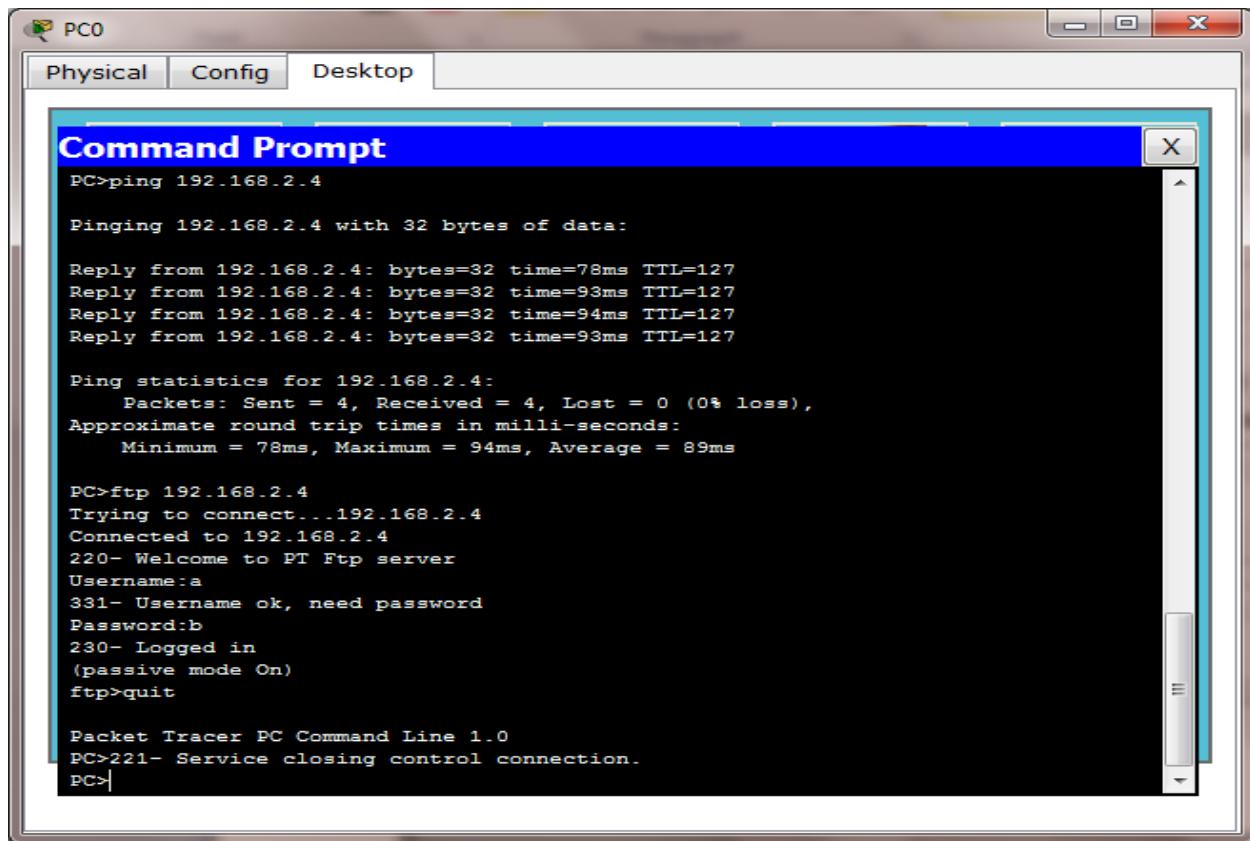


Step 15:-configuring DNS in FTP -> Check if DNS is off

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Step 16:-configuring PC0 -> Desktop -> Command Prompt -> ftp 192.168.2.4



The screenshot shows a Windows-style Command Prompt window titled "PC0". The window has tabs at the top: "Physical", "Config", and "Desktop". The "Command Prompt" tab is active, displaying the following output:

```
PC>ping 192.168.2.4
Pinging 192.168.2.4 with 32 bytes of data:
Reply from 192.168.2.4: bytes=32 time=78ms TTL=127
Reply from 192.168.2.4: bytes=32 time=93ms TTL=127
Reply from 192.168.2.4: bytes=32 time=94ms TTL=127
Reply from 192.168.2.4: bytes=32 time=93ms TTL=127

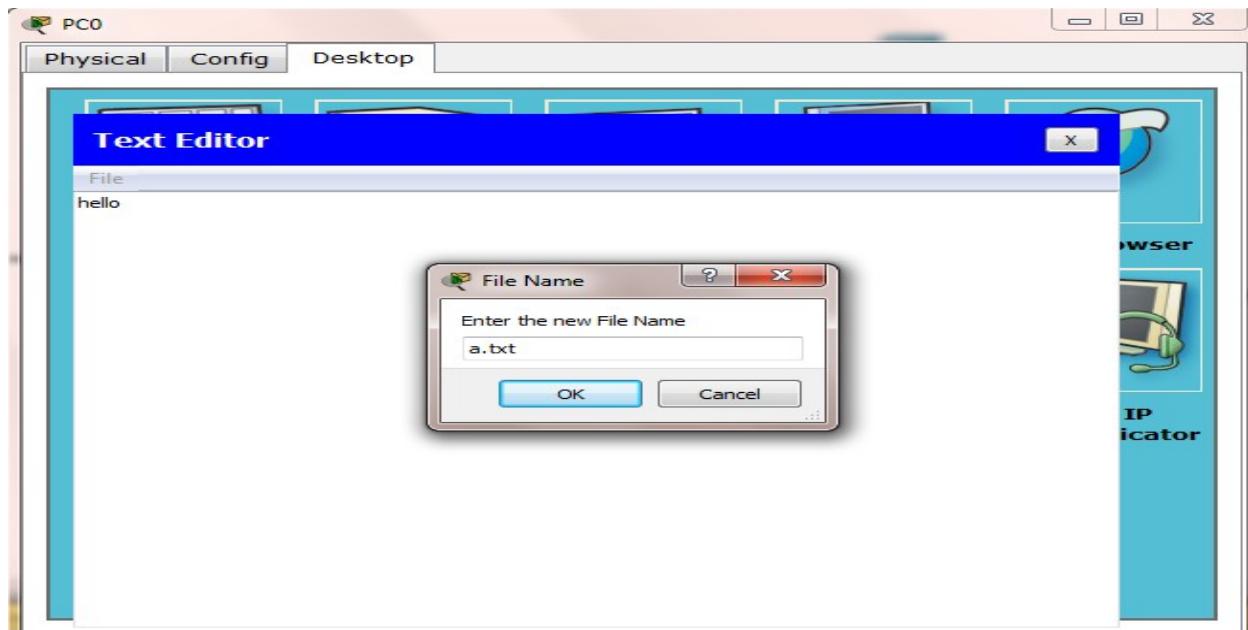
Ping statistics for 192.168.2.4:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 78ms, Maximum = 94ms, Average = 89ms

PC>ftp 192.168.2.4
Trying to connect...192.168.2.4
Connected to 192.168.2.4
220- Welcome to PT Ftp server
Username:a
331- Username ok, need password
Password:b
230- Logged in
(passive mode On)
ftp>quit

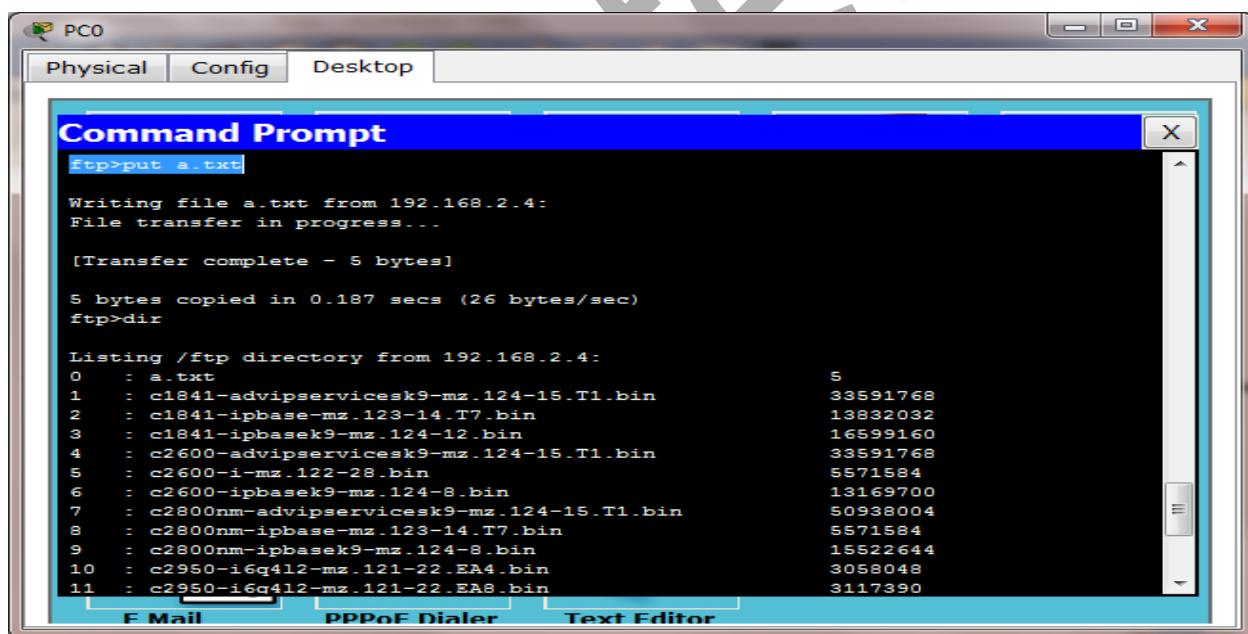
Packet Tracer PC Command Line 1.0
PC>221- Service closing control connection.
PC>
```

Step 17:- PC0 -> Desktop -> Text Editor-> Save it as a.txt

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Step 18:-configuring PC0 -> Desktop -> Command Prompt -> put a.txt



Step 19:-configuring PC0 -> Desktop -> Command Prompt -> dir

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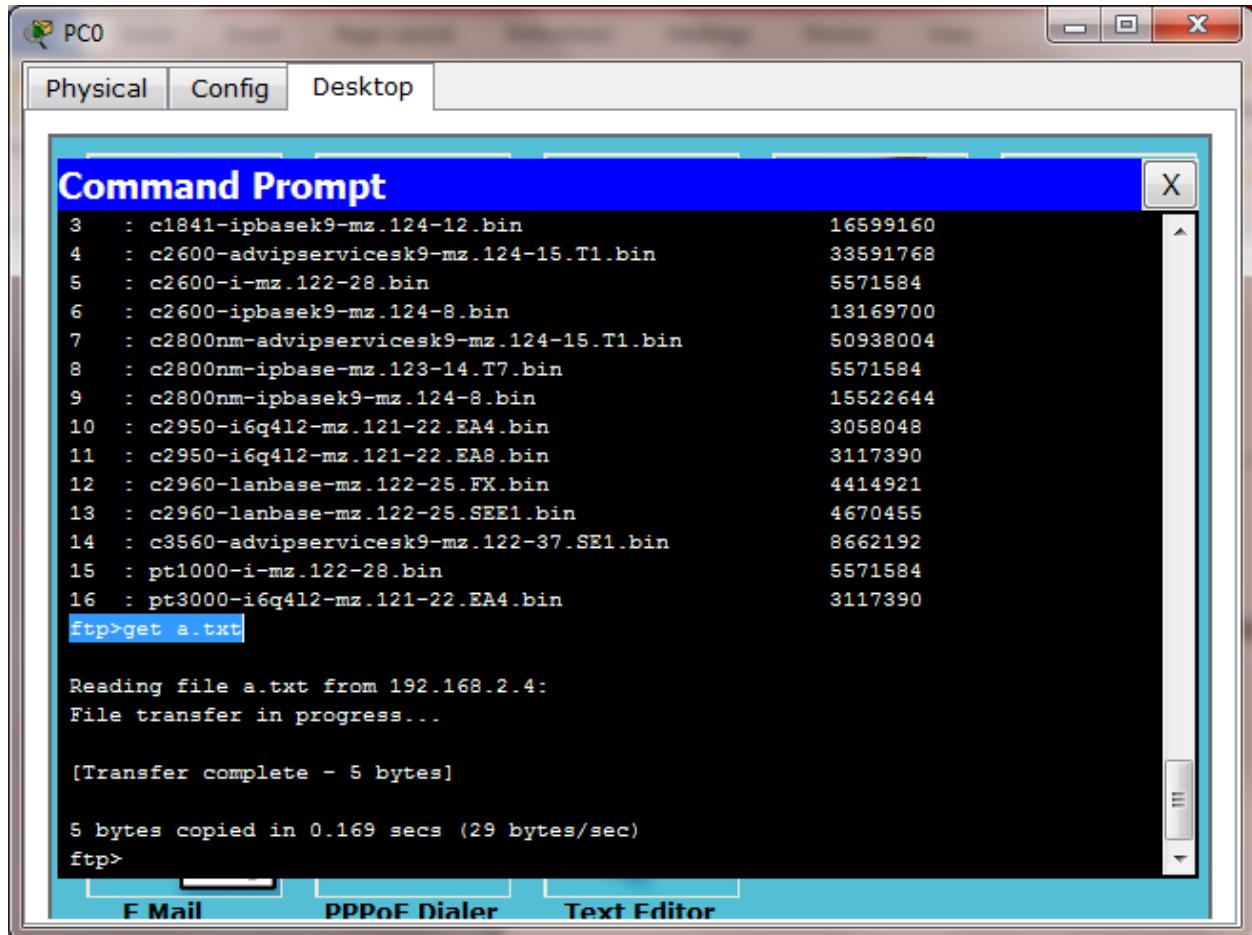
```
PC0
Physical Config Desktop

Command Prompt
ftp>dir
Listing /ftp directory from 192.168.2.4:
0 : a.txt
1 : c1841-advipservicesk9-mz.124-15.T1.bin
2 : c1841-ipbase-mz.123-14.T7.bin
3 : c1841-ipbasek9-mz.124-12.bin
4 : c2600-advipservicesk9-mz.124-15.T1.bin
5 : c2600-i-mz.122-28.bin
6 : c2600-ipbasek9-mz.124-8.bin
7 : c2800nm-advipservicesk9-mz.124-15.T1.bin
8 : c2800nm-ipbase-mz.123-14.T7.bin
9 : c2800nm-ipbasek9-mz.124-8.bin
10 : c2950-i6q412-mz.121-22.EA4.bin
11 : c2950-i6q412-mz.121-22.EA8.bin
12 : c2960-lanbase-mz.122-25.FX.bin
13 : c2960-lanbase-mz.122-25.SEE1.bin
14 : c3560-advipservicesk9-mz.122-37.SE1.bin
15 : pt1000-i-mz.122-28.bin
16 : pt3000-i6q412-mz.121-22.EA4.bin
      5
      33591768
      13832032
      16599160
      33591768
      5571584
      13169700
      50938004
      5571584
      15522644
      3058048
      3117390
      4414921
      4670455
      8662192
      5571584
      3117390

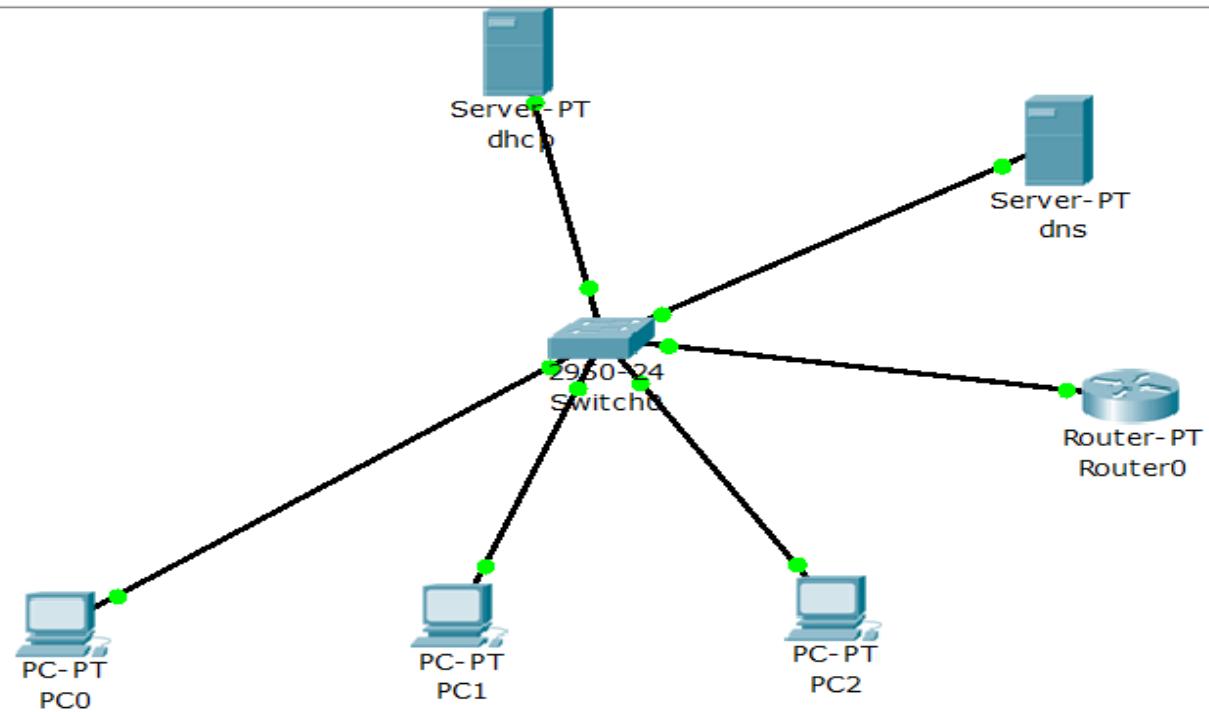
ftp>get a.txt
Reading file a.txt from 192.168.2.4:
File transfer in progress...
[Transfer complete - 5 bytes]
5 bytes copied in 0.169 secs (29 bytes/sec)
ftp>
```

Step 20:-configuring PC0 -> Desktop -> Command Prompt -> get a.txt

munotes.in



munotes.in Practical No:-8



Step 1:-Configuring Router0

```
Router>en
```

```
Router#config t
```

```
Enter configuration commands, one per line. End with CNTL/Z.
```

```
Router(config)#hostname r1
```

```
r1(config)#interface f0/3
```

```
%Invalid interface type and number
```

```
r1(config)#interface f0/0
```

```
r1(config-if)#ip address 192.168.1.1 255.255.255.0
```

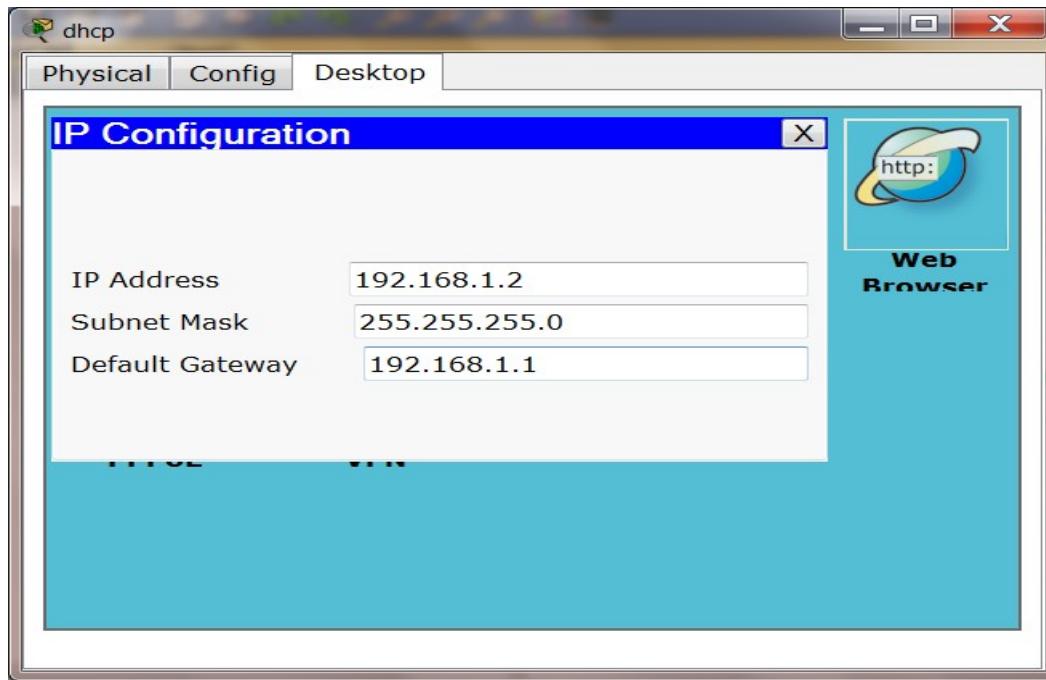
```
r1(config-if)#no shut
```

```
%LINK-5-CHANGED: Interface FastEthernet0/0, changed state to up
```

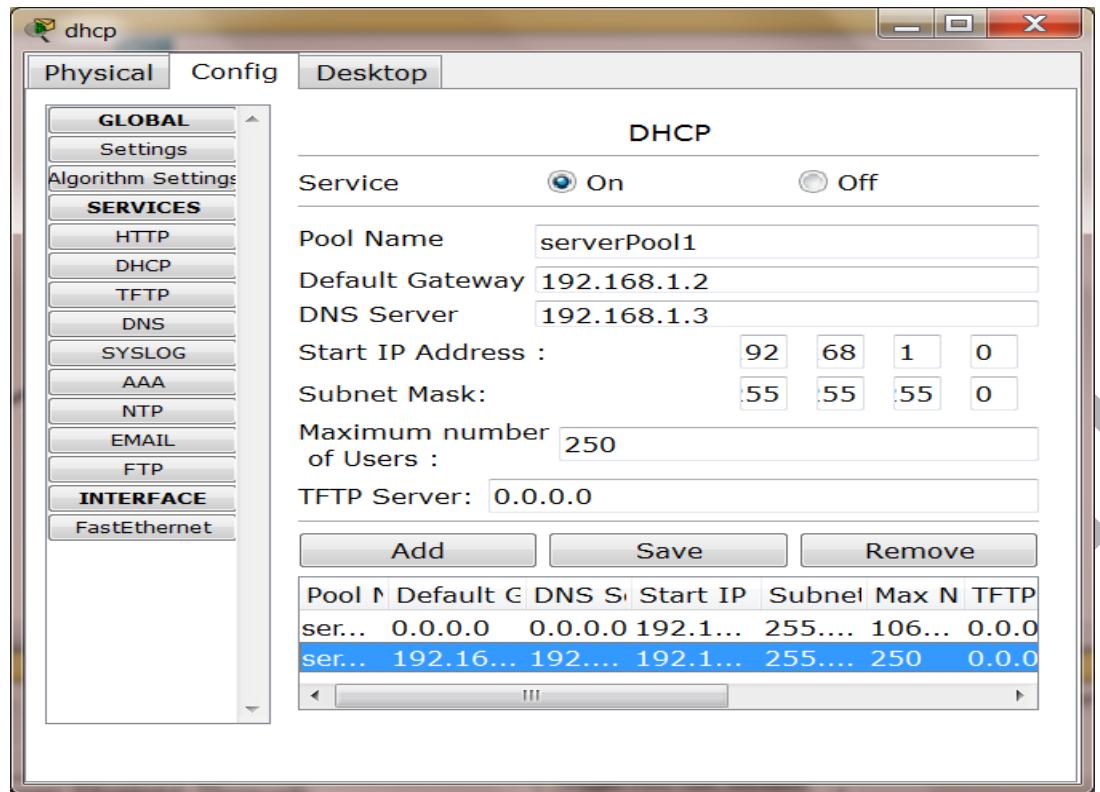
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0, changed state to up

r1(config-if)#exit

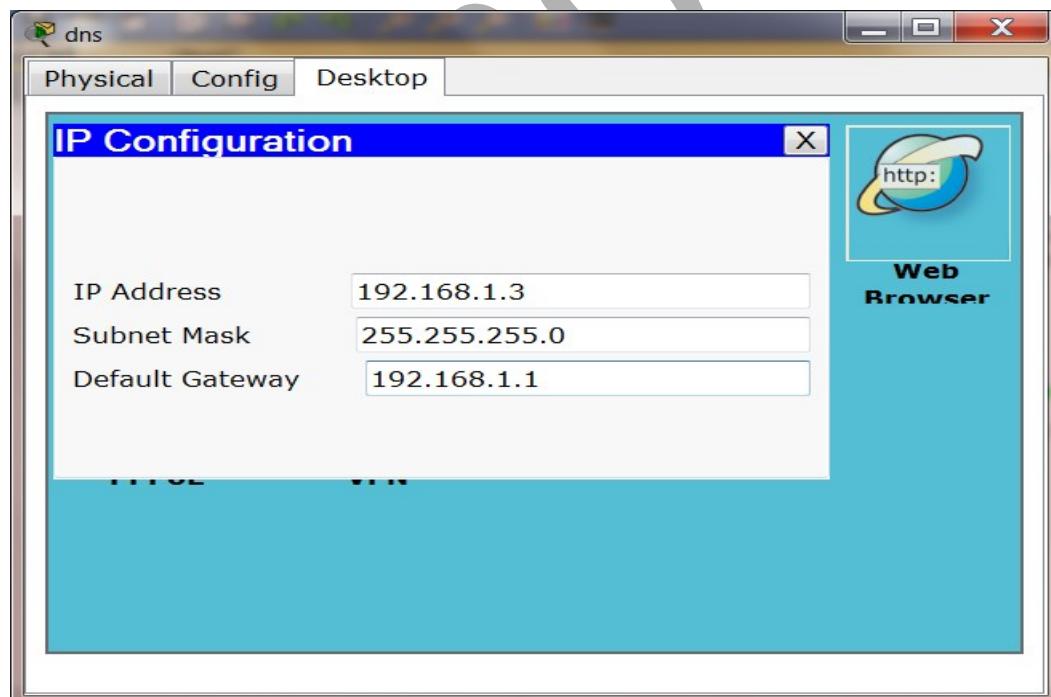
Step 2:-IP Configuring of server 0 i.e dhcp



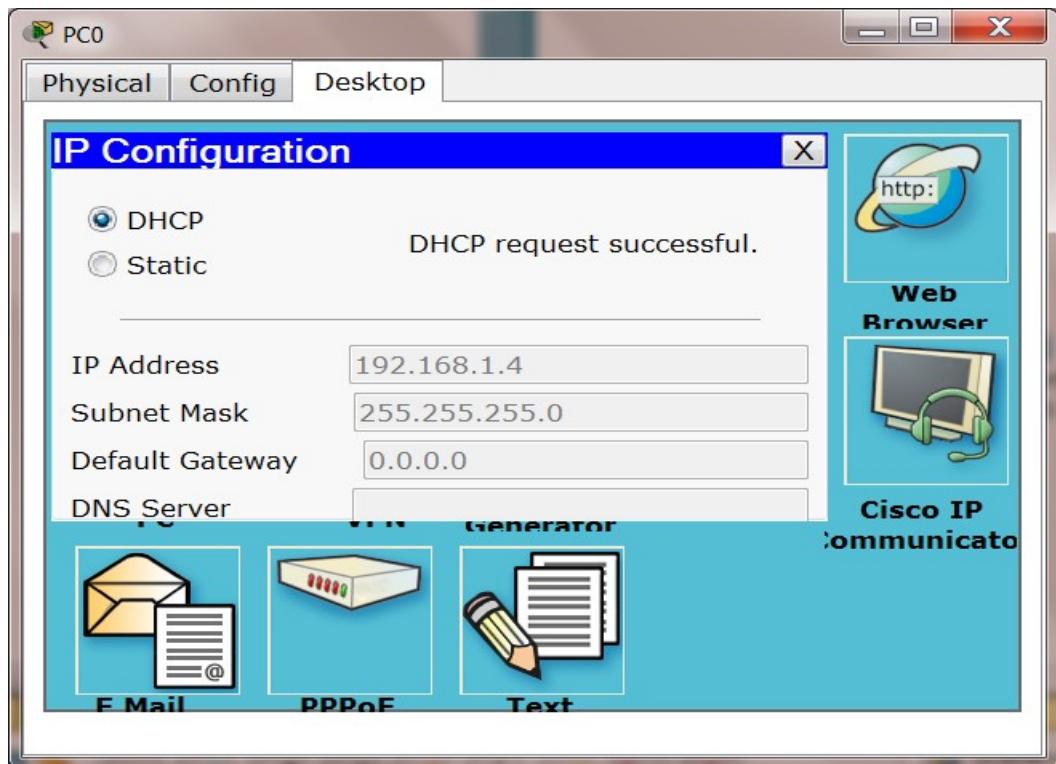
Step3:-Configuring DHCP



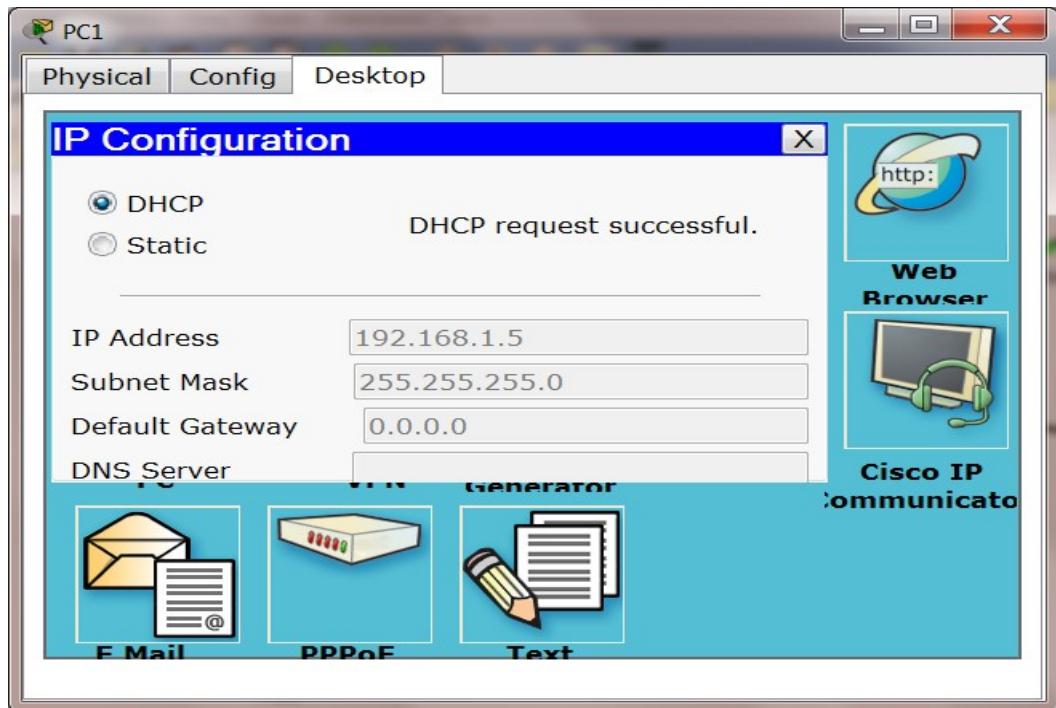
Step 4:- IP Configuring of server 1 i.e dns



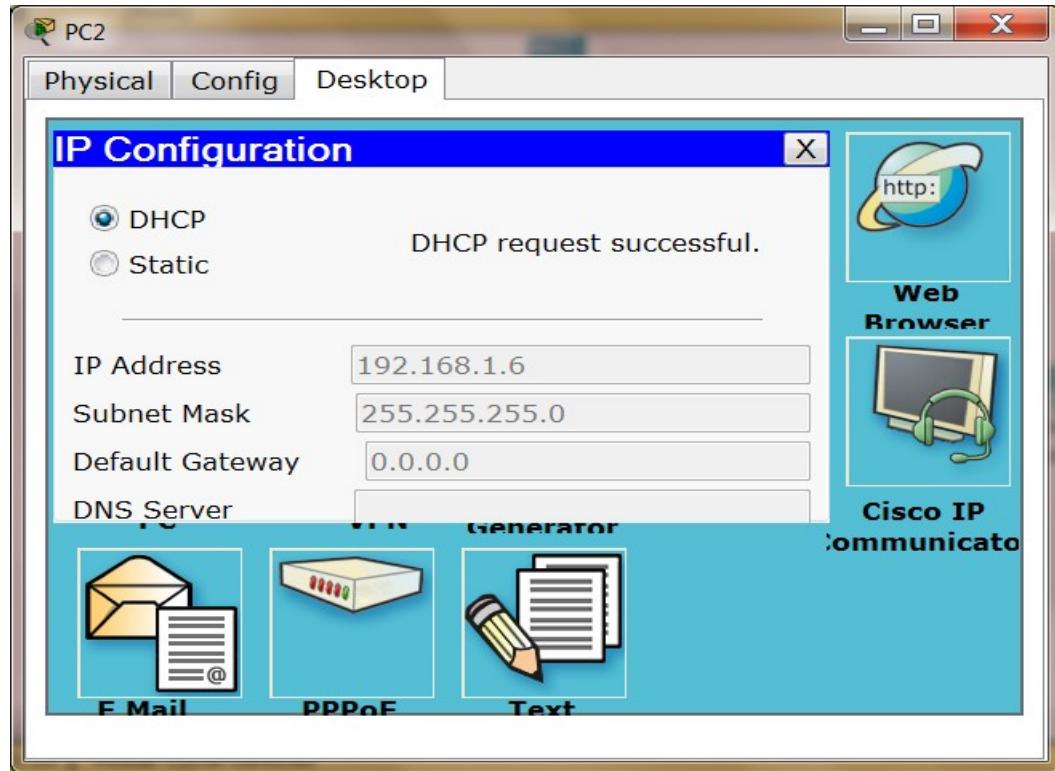
Step 5:-Configuring PC0



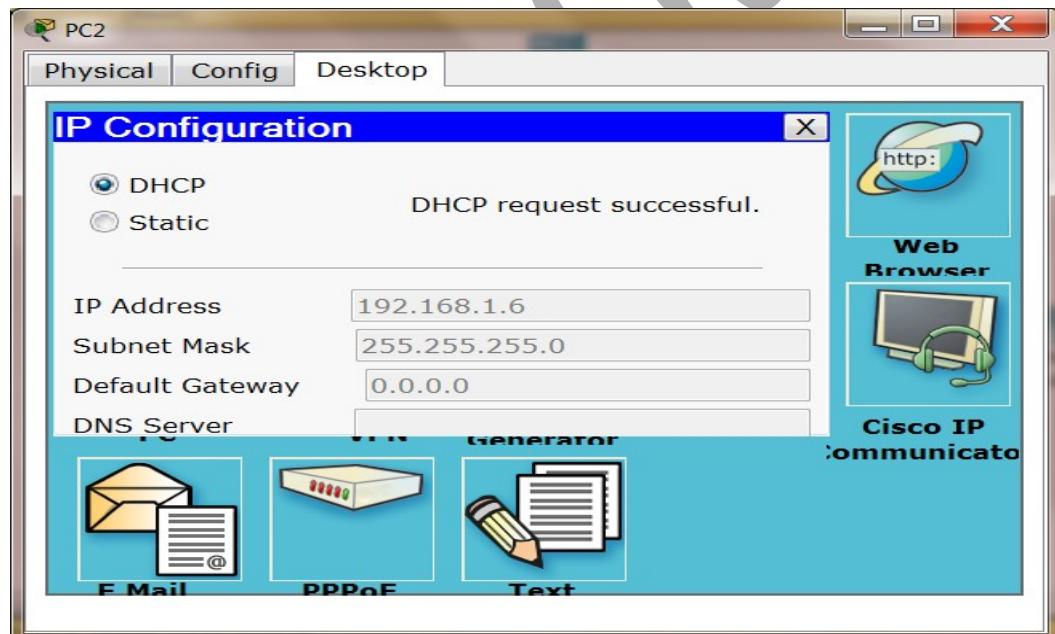
Step 6:-Configuring PC1



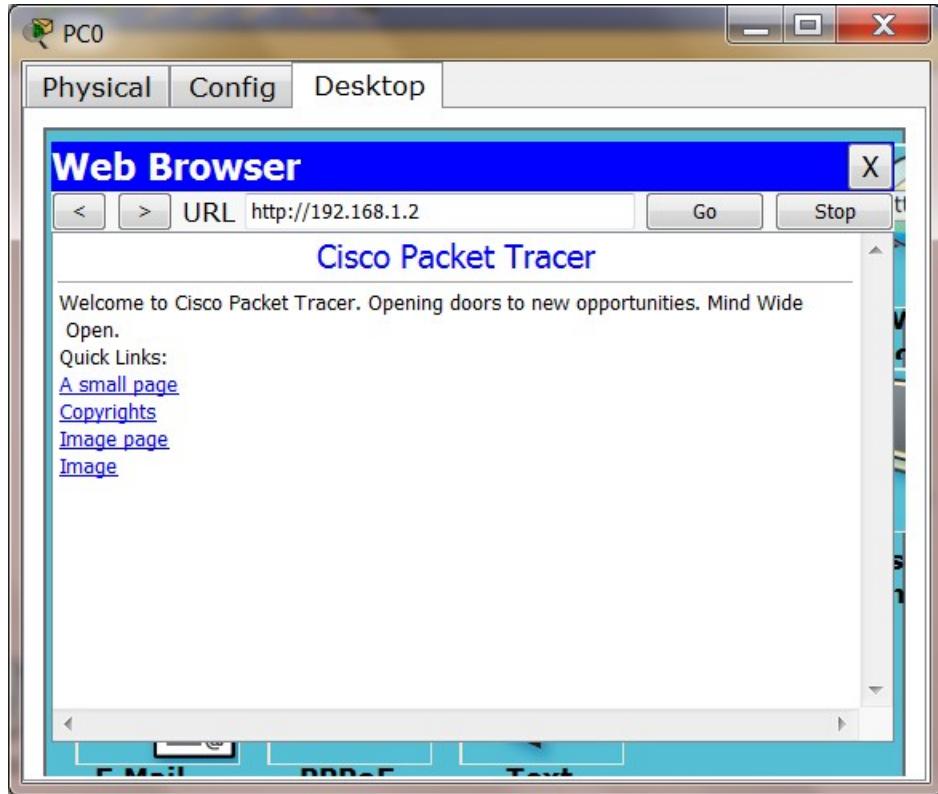
Step 7:-Configuring PC2



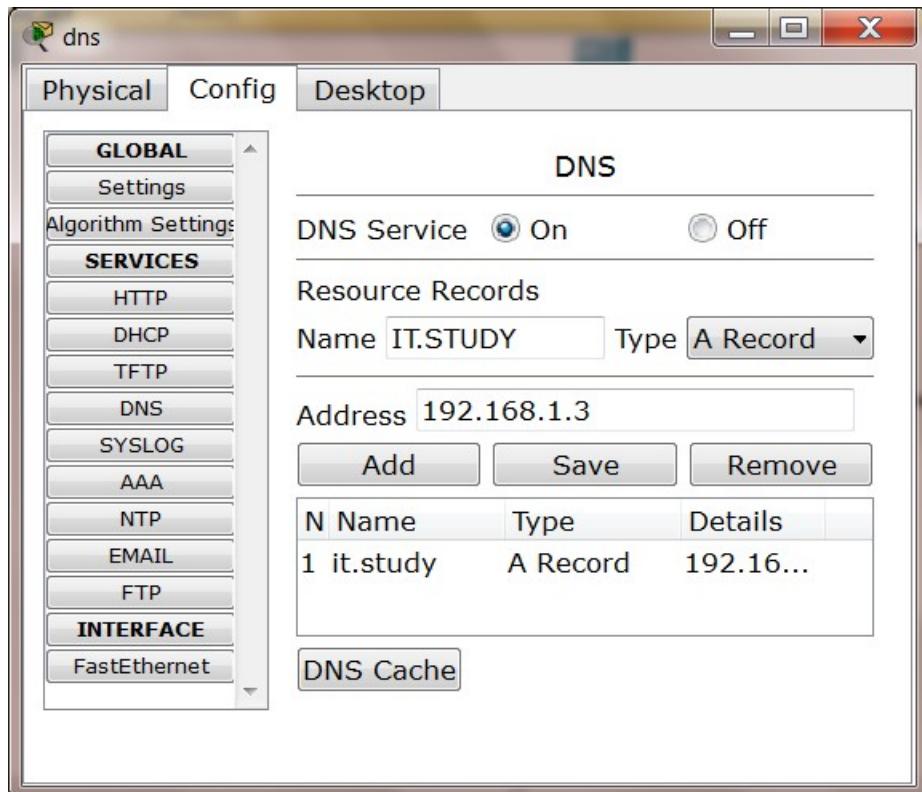
Step 8:-Go to PC0>desktop>command prompt



Step 9:-Go to PC0>desktop>web browser



Step 10:-Configuring DNS



Step 11:-Go to PC0>desktop>web browser

