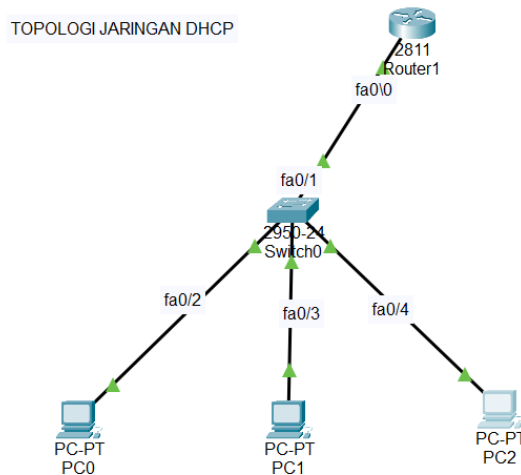


Nama : Nadyah Dinanti
Nim : 090102823227040
Kelas : MI3A
Mk : Pratikum Jaringan Komputer



1. Buat Topologi Seperti Gambar diatas
2. Pasang Kabel Copper Straight dari PC ke Switch terhubung
3. Setelah itu, kita menyalakan switch daya dan tunggu beberapa menit, router akan menyala.

```
System Bootstrap, Version 12.1(3r)T2, RELEASE SOFTWARE (fc1)
Copyright (c) 2000 by cisco Systems, Inc.
cisco 2811 (MPC860) processor (revision 0x200) with 60416K/5120K bytes of memory

Readonly ROMMON initialized

program load complete, entry point: 0x8000f000, size: 0xc940
program load complete, entry point: 0x8000f000, size: 0xc940

program load complete, entry point: 0x8000f000, size: 0x3ed1338
Self decompressing the image :
##### [OK]
```

4. Setelah loading router selesai, kita lanjutkan konfigurasinya.

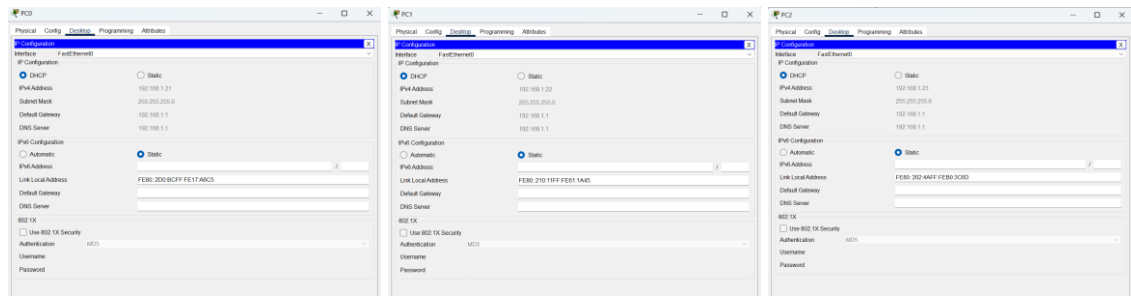
```
ROUTER_DHCP>enable
ROUTER_DHCP#configure terminal
Enter Configuration commands, one per line. End with CNTL/Z.
ROUTER_DHCP(config)#hostname 09010282327040_DHCP
09010282327040_DHCP(config)#int fa0/0
09010282327040_DHCP(config-if)#ip add 192.168.1.1 255.255.255.0
09010282327040_DHCP(config-if)#no shutdown

09010282327040_DHCP(config-if)#
%LINK-5-CHANGED: Interface FastEthernet0/0, changed state to up

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

09010282327040_DHCP(config-if)#exit
09010282327040_DHCP(config)#ip dhcp pool LAB
09010282327040_DHCP(dhcp-config)#network 192.168.1.0 255.255.255.0
09010282327040_DHCP(dhcp-config)#default-router 192.168.1.1
09010282327040_DHCP(dhcp-config)#dns-server 192.168.1.1
09010282327040_DHCP(dhcp-config)#ip dhcp excluded-address 192.168.1.1
09010282327040_DHCP(dhcp-config)#ip dhcp excluded-address 192.168.1.2
09010282327040_DHCP(config)#ip dhcp excluded-address 192.168.1.2 192.168.1.20
09010282327040_DHCP(config)#exit
09010282327040_DHCP#
%SYS-5-CONFIG_I: Configured from console by console
```

5. Setelah itu lakukan konfigurasi pada PC

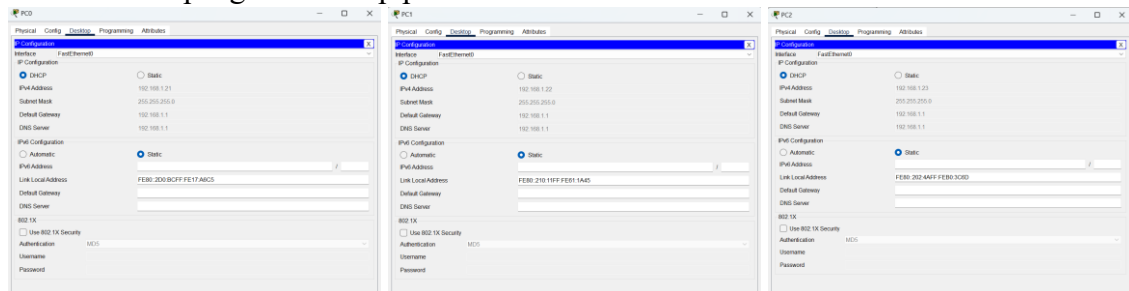


6. Melihat daftar IP dari Client

```
090102R2327040_DHCP#sh ip dhcp binding
IP address      Client-ID/
Hardware address Lease expiration Type
192.168.1.21    00D0.BC17.A6C5 -- Automatic
192.168.1.22    0010.1161.1A45 -- Automatic
192.168.1.23    0002.4AB0.3C6D -- Automatic
090102R2327040_DHCP#
```

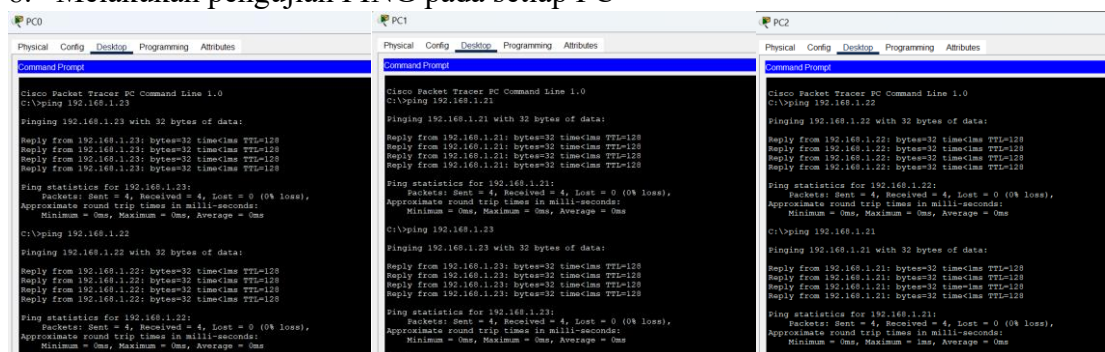
No	IP Address	MAC Address	Lease Expiration	Type
1	192.168.1.21	00D0.BC17.A6C5	-	Automatic
2	192.168.1.22	0010.1161.1A45	-	Automatic
3	192.168.1.23	0002.4AB0.3C6D	-	Automatic

7. Melakukan pengalamatan ip pada Client/PC



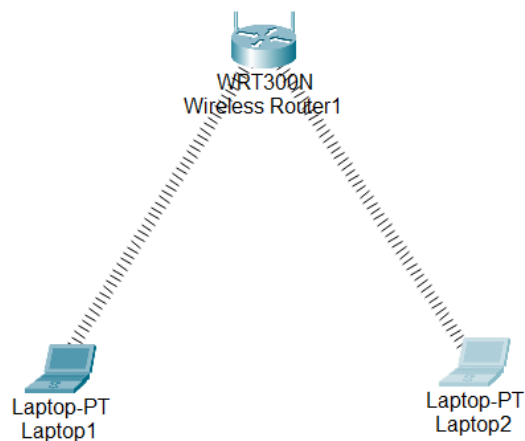
No	Client	IP Address	Netmask	Gateway	DNS
1	PC1	192.168.1.21	255.255.255.0	192.168.1.1	192.168.1.1
2	PC2	192.168.1.22	255.255.255.0	192.168.1.1	192.168.1.1
3	PC3	192.168.1.23	255.255.255.0	192.168.1.1	192.168.1.1

8. Melakukan pengujian PING pada setiap PC

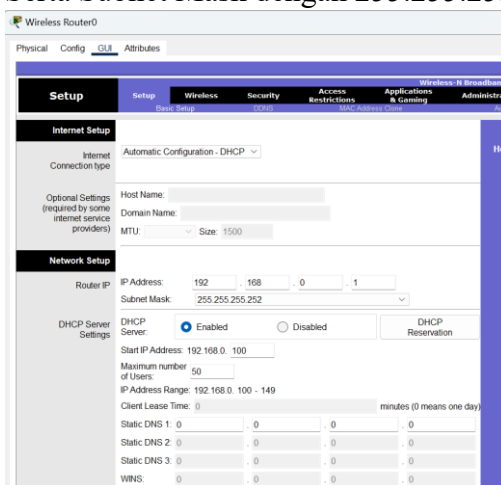


No	Sumber	Hasil	Tujuan	Hasil
		Ya/Tidak		Ya/Tidak
1	PC0	Ya	PC1	Ya
		Ya	PC2	Ya
2	PC1	Ya	PC0	Ya
		Ya	PC2	Ya
3	PC2	Ya	PC0	Ya
		Ya	PC1	Ya

LATIHAN



1. Buat Topologi Seperti Gambar diatas (**note*: Gantilah device Laptop menjadi laptop pada topologi diatas dan harus terhubung secara wireless**)
2. Konfigurasi Access Point
 - Untuk mengkonfigurasi access point, klik Wireless Router yang sudah dipasang.
 - Pilih tab/menu GUI
 - Masukkan IP Address dengan 192.168.0.1
 - Serta Subnet Mask dengan 255.255.255.0



- Aktifkan DHCP Server, menjadi Enabled

- Mulai IP Address, dan IP DHCP dimulai dari 192.168.0.100
- Maximum number of Users (jumlah maksimum dari IP DHCP)
- Lalu simpan pengaturan (Save Settings)

The screenshot shows the 'Network Setup' tab for 'Wireless Router0'. The 'Router IP' is set to 192.168.0.1 with a subnet mask of 255.255.255.252. The 'DHCP Server' is enabled. The 'Start IP Address' is 192.168.0.100, the 'Maximum number of Users' is 50, and the 'IP Address Range' is 192.168.0.100 - 149. The 'Client Lease Time' is 0 minutes. There are also fields for Static DNS 1, 2, 3, and WINS, all currently set to 0.

- Pilih tab/menu Wireless -> Basic Wireless Settings
- Buatlah nama SSID dengan LabJarkom
- Lalu simpan pengaturan (Save Settings)

The screenshot shows the 'Basic Wireless Settings' tab for 'Wireless Router0'. The 'Network Mode' is set to 'Mixed'. The 'Network Name (SSID)' is 'LabJarkom'. The 'Radio Band' is 'Auto', the 'Wide Channel' is 'Auto', and the 'Standard Channel' is '1 - 2.412GHz'. The 'SSID Broadcast' is enabled.

Konfigurasi SSID pada Access Point

- Tekan tab/menu Wireless -> Wireless Security
- Lalu pada Security Mode akan menggunakan WPA2 Personal
- Dengan Encryption AES
- Serta Passphrase 12345678
- Lalu simpan pengaturan (Save Settings)

The screenshot shows the 'Wireless Security' tab for 'Wireless Router0'. The 'Security Mode' is 'WPA2 Personal', the 'Encryption' is 'AES', the 'Passphrase' is '12345678', and the 'Key Renewal' is set to 3600 seconds.

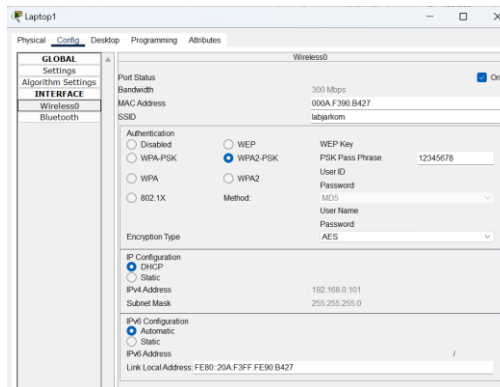
Konfigurasi Password pada Access Point

3. Konfigurasi Client

Konfigurasi Laptop1

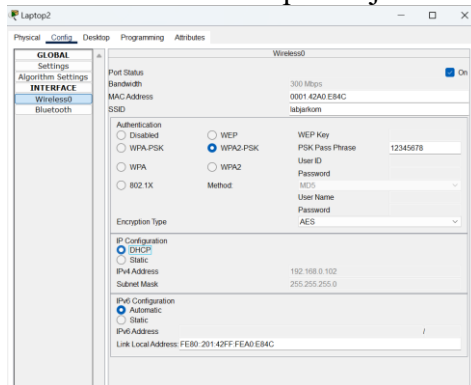
- Konfigurasi Laptop pada tab Config

- SSID = LabJarkom
- Authentication = WPA2-PSK
- Pass Phrase = 12345678
- Pada IP Configuration memakai DHCP
- Nomor IP akan ditampilkan jika PC Laptop terhubung dan DHCP Server aktif



Konfigurasi Laptop2

- Konfigurasi Laptop pada tab Config
- SSID = LabJarkom
- Authentication = WPA2-PSK
- Pass Phrase = 12345678
- IP menggunakan DHCP
- Nomor IP akan ditampilkan jika PC Laptop terhubung dan DHCP Server aktif



4. Pengujian PING

- DiLaptop, pilih tab/menu Desktop -> Command Prompt
- Jalankan perintah Ping ke IP Access Point 192.168.0.1
- Ping IP Laptop1 Ke Laptop2

Laptop1

Physical Config Desktop Programming Attributes

Command Prompt

```
Cisco Packet Tracer PC Command Line 1.0
C:\>
1
Invalid Command.
C:\>ping 192.168.0.102

Pinging 192.168.0.102 with 32 bytes of data:

Reply from 192.168.0.102: bytes=32 time=50ms TTL=128
Reply from 192.168.0.102: bytes=32 time=34ms TTL=128
Reply from 192.168.0.102: bytes=32 time=31ms TTL=128
Reply from 192.168.0.102: bytes=32 time=31ms TTL=128

Ping statistics for 192.168.0.102:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 31ms, Maximum = 50ms, Average = 36ms
C:\>
```

- Lakukan juga pada Laptop2 Ke Laptop1

Laptop2

Physical Config Desktop Programming Attributes

Command Prompt

```
Cisco Packet Tracer PC Command Line 1.0
C:\>
C:\>ping 192.168.0.101

Pinging 192.168.0.101 with 32 bytes of data:

Reply from 192.168.0.101: bytes=32 time=77ms TTL=128
Reply from 192.168.0.101: bytes=32 time=28ms TTL=128
Reply from 192.168.0.101: bytes=32 time=28ms TTL=128
Reply from 192.168.0.101: bytes=32 time=30ms TTL=128

Ping statistics for 192.168.0.101:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 28ms, Maximum = 77ms, Average = 40ms
C:\>
```