Internet dan Aplikasinya
TUGAS 8 : Wireless

Oleh :

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PROGRAM STUDI INFORMATIKA
FAKULTAS SAINS DAN TEKNOLOGI
UNIVERSITAS SANATA DHARMA
YOGYAKARTA

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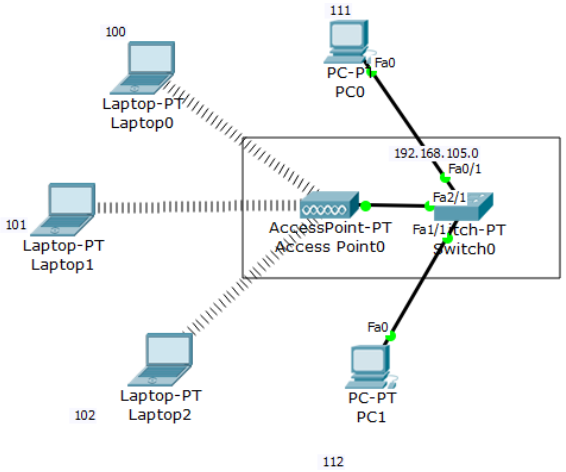
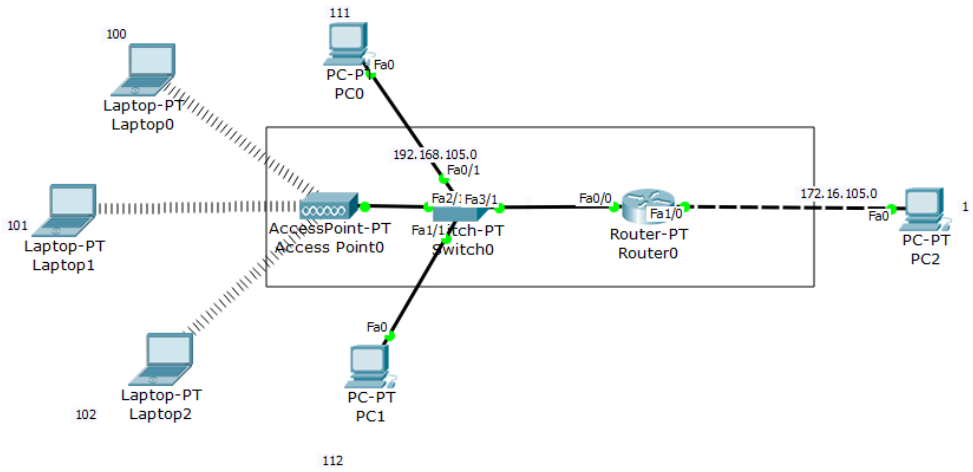
A. Screenshot Topologi

1. Wireless AP

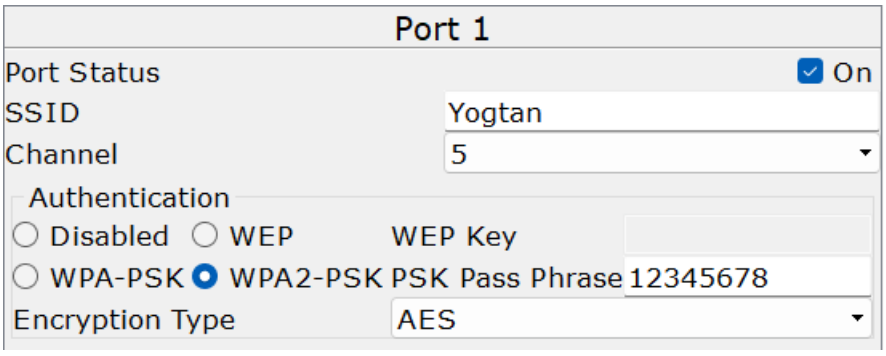


2. Wireless Router

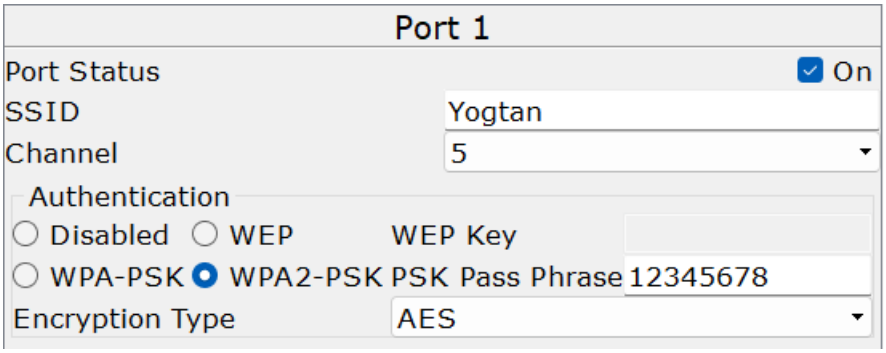


B. Config Access Point

1. Wireless AP



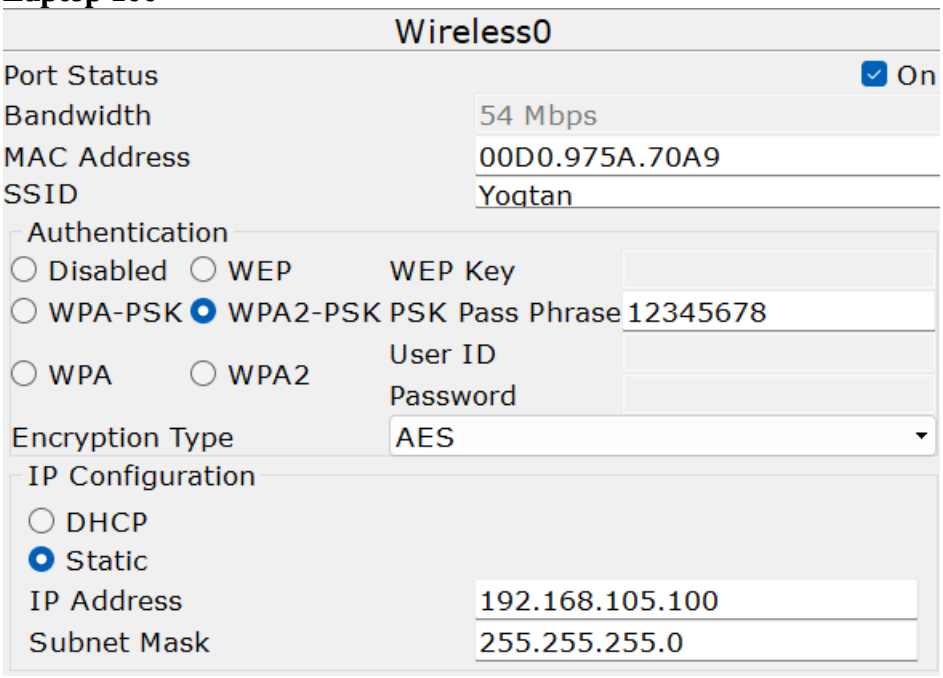
2. **Wireless Router**



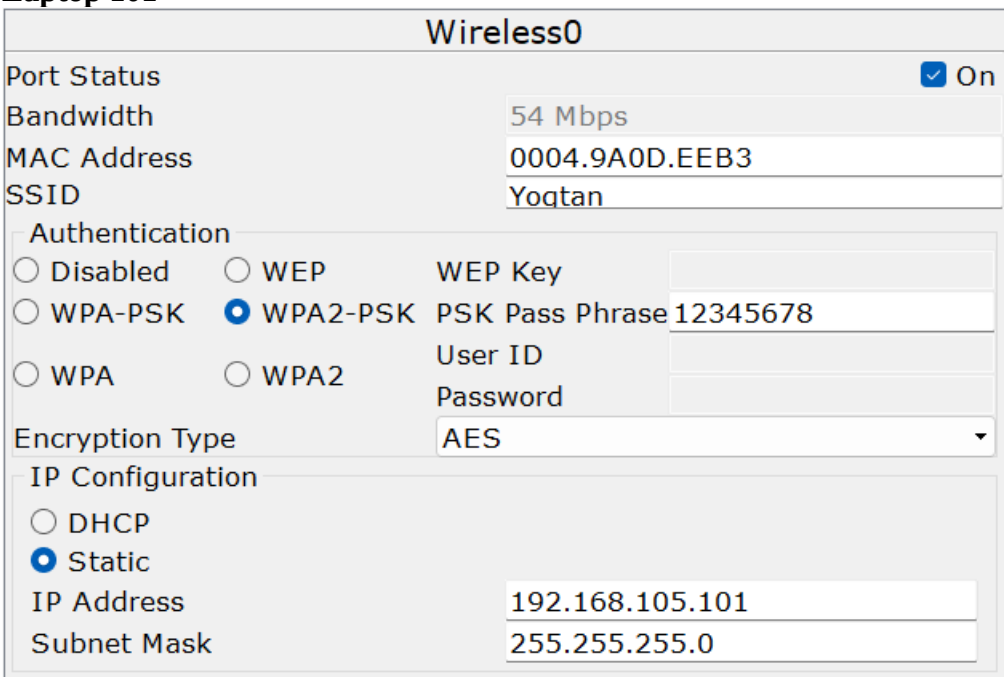
C. **Config Setiap PC**

1. **Wireless AP**

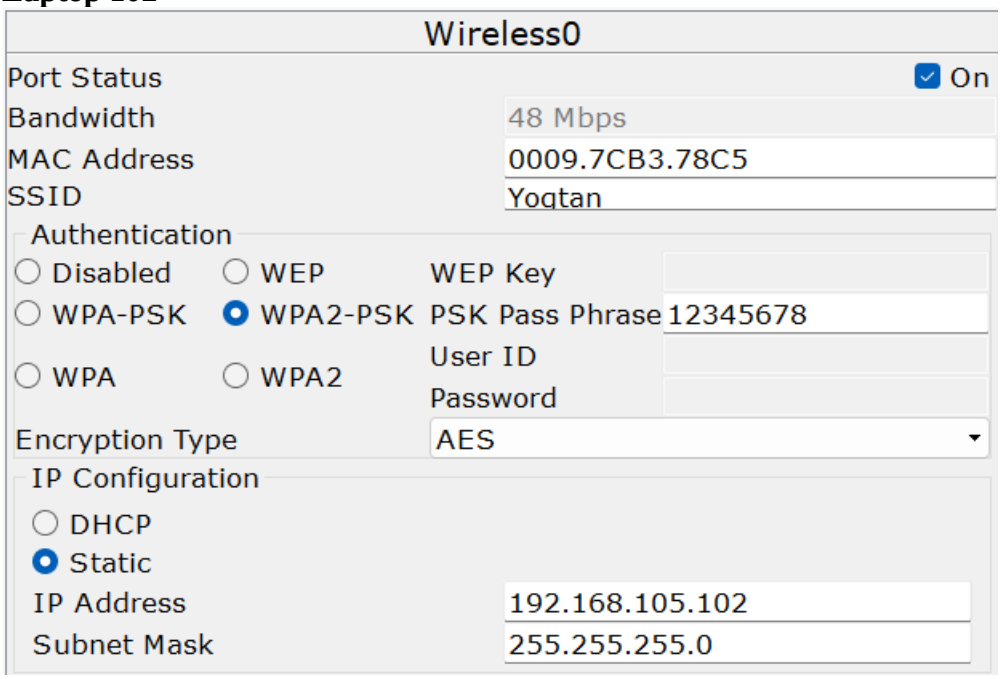
Laptop 100



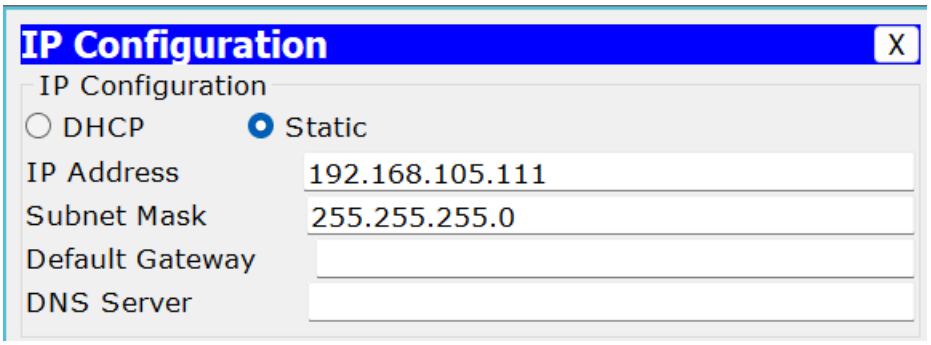
Laptop 101



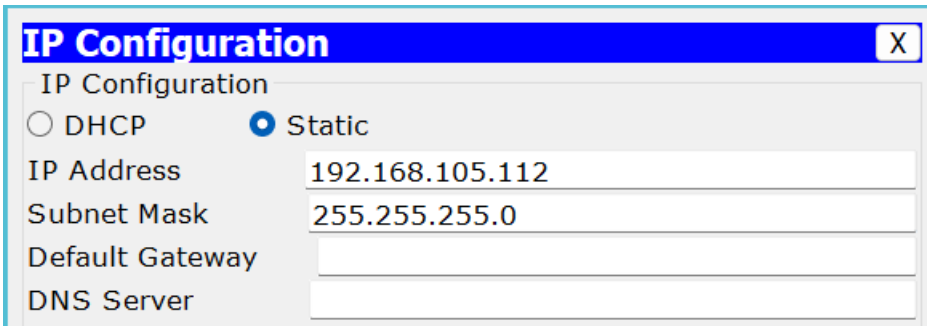
Laptop 102



PC 111

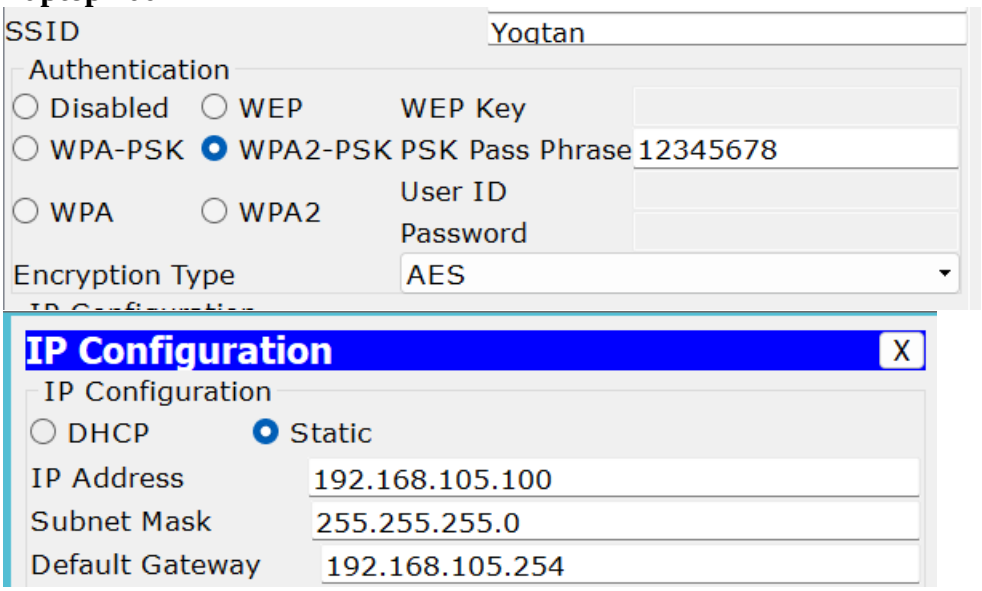


PC 112

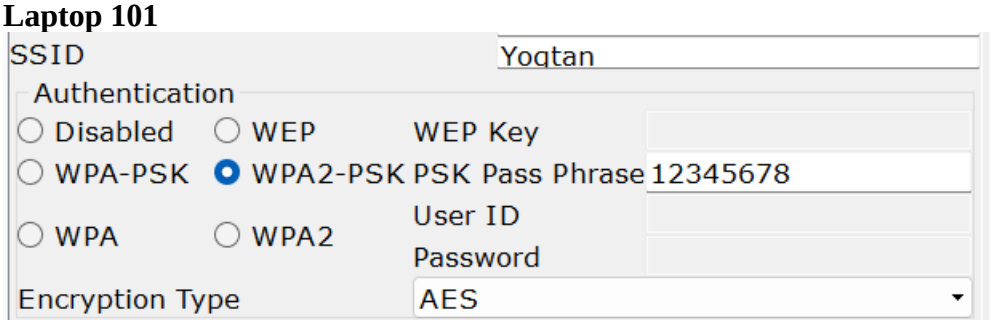


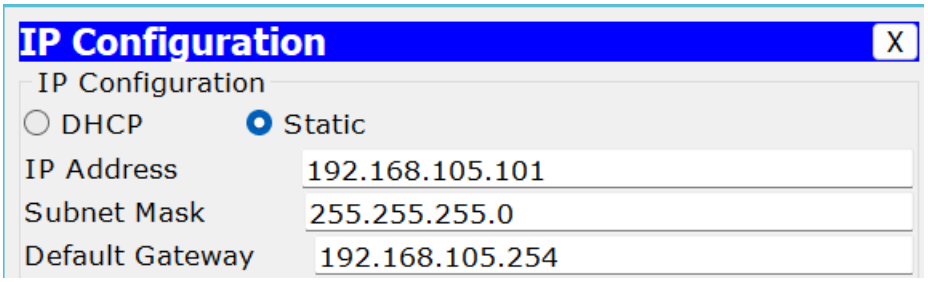
2. **Wireless Router**

Laptop 100

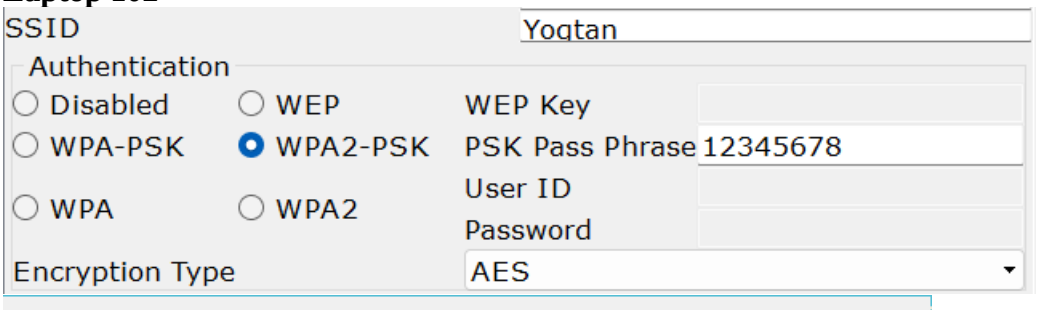


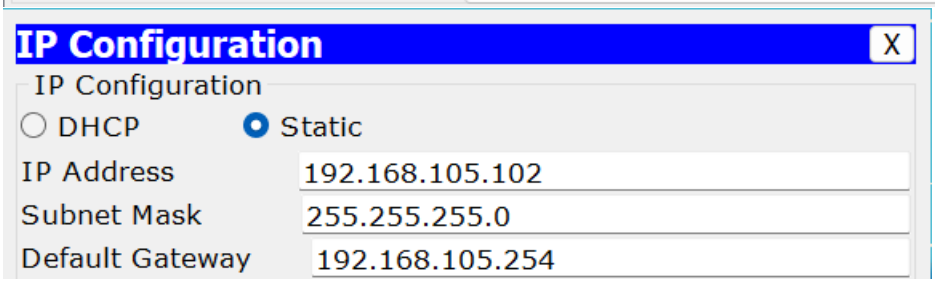
Laptop 101



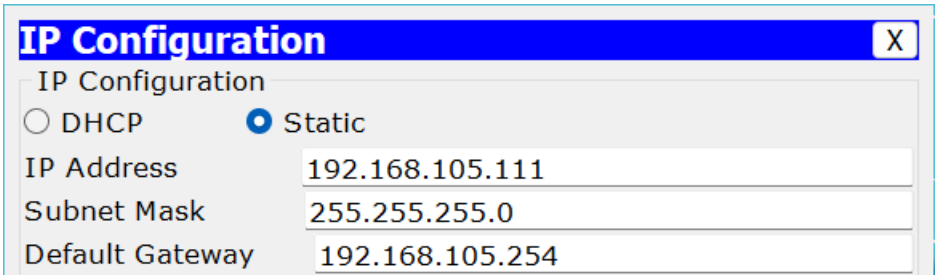


Laptop 102

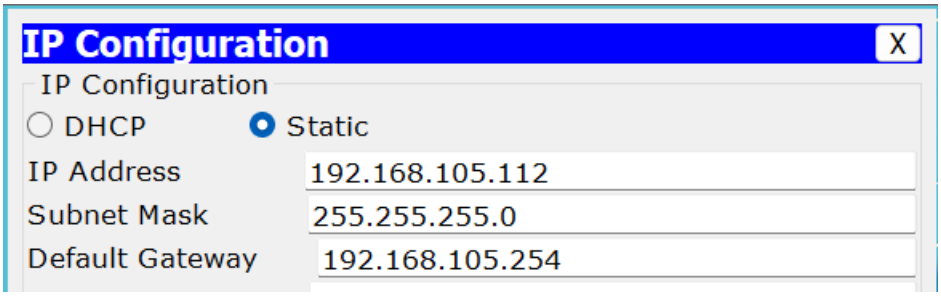




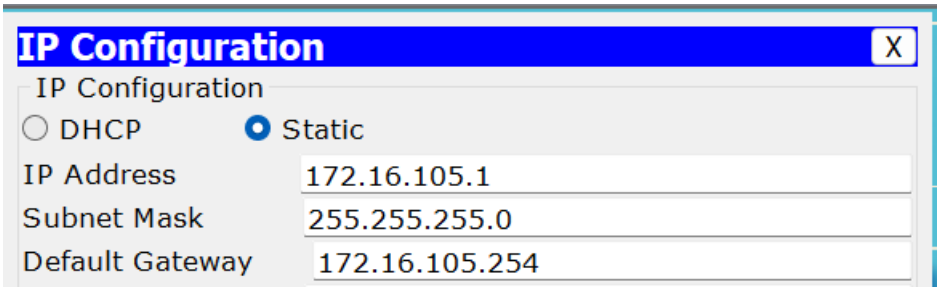
PC 111



PC 112



PC 1



D. Screenshot Ping

1. Wireless AP

Laptop 100 > Laptop 101

```
PC>ping 192.168.105.101

Pinging 192.168.105.101 with 32 bytes of data:

Reply from 192.168.105.101: bytes=32 time=38ms TTL=128
Reply from 192.168.105.101: bytes=32 time=19ms TTL=128
Reply from 192.168.105.101: bytes=32 time=16ms TTL=128
Reply from 192.168.105.101: bytes=32 time=18ms TTL=128

Ping statistics for 192.168.105.101:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 16ms, Maximum = 38ms, Average = 22ms
```

Laptop 100 > Laptop 102

```
PC>ping 192.168.105.102

Pinging 192.168.105.102 with 32 bytes of data:

Reply from 192.168.105.102: bytes=32 time=48ms TTL=128
Reply from 192.168.105.102: bytes=32 time=18ms TTL=128
Reply from 192.168.105.102: bytes=32 time=18ms TTL=128
Reply from 192.168.105.102: bytes=32 time=18ms TTL=128

Ping statistics for 192.168.105.102:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 18ms, Maximum = 48ms, Average = 25ms
```

Laptop 100 > PC 111

```
PC>ping 192.168.105.111

Pinging 192.168.105.111 with 32 bytes of data:

Reply from 192.168.105.111: bytes=32 time=28ms TTL=128
Reply from 192.168.105.111: bytes=32 time=14ms TTL=128
Reply from 192.168.105.111: bytes=32 time=16ms TTL=128
Reply from 192.168.105.111: bytes=32 time=14ms TTL=128

Ping statistics for 192.168.105.111:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 14ms, Maximum = 28ms, Average = 18ms
```

Laptop 100 > PC 112

```
PC>ping 192.168.105.112

Pinging 192.168.105.112 with 32 bytes of data:

Reply from 192.168.105.112: bytes=32 time=25ms TTL=128
Reply from 192.168.105.112: bytes=32 time=11ms TTL=128
Reply from 192.168.105.112: bytes=32 time=24ms TTL=128
Reply from 192.168.105.112: bytes=32 time=12ms TTL=128

Ping statistics for 192.168.105.112:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 11ms, Maximum = 25ms, Average = 18ms
```

2. **Wireless Router**

Laptop 100 > Laptop 101

```
PC>ping 192.168.105.101

Pinging 192.168.105.101 with 32 bytes of data:

Reply from 192.168.105.101: bytes=32 time=26ms TTL=128
Reply from 192.168.105.101: bytes=32 time=15ms TTL=128
Reply from 192.168.105.101: bytes=32 time=16ms TTL=128
Reply from 192.168.105.101: bytes=32 time=20ms TTL=128

Ping statistics for 192.168.105.101:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 15ms, Maximum = 26ms, Average = 19ms
```

Laptop 100 > Laptop 102

```
PC>ping 192.168.105.102

Pinging 192.168.105.102 with 32 bytes of data:

Reply from 192.168.105.102: bytes=32 time=26ms TTL=128
Reply from 192.168.105.102: bytes=32 time=20ms TTL=128
Reply from 192.168.105.102: bytes=32 time=19ms TTL=128
Reply from 192.168.105.102: bytes=32 time=16ms TTL=128

Ping statistics for 192.168.105.102:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 16ms, Maximum = 26ms, Average = 20ms
```

Laptop 100 > Laptop 111

```
PC>ping 192.168.105.111

Pinging 192.168.105.111 with 32 bytes of data:

Reply from 192.168.105.111: bytes=32 time=29ms TTL=128
Reply from 192.168.105.111: bytes=32 time=9ms TTL=128
Reply from 192.168.105.111: bytes=32 time=8ms TTL=128
Reply from 192.168.105.111: bytes=32 time=9ms TTL=128

Ping statistics for 192.168.105.111:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 8ms, Maximum = 29ms, Average = 13ms
```

Laptop 100 > PC 112

```
PC>ping 192.168.105.112

Pinging 192.168.105.112 with 32 bytes of data:

Reply from 192.168.105.112: bytes=32 time=25ms TTL=128
Reply from 192.168.105.112: bytes=32 time=13ms TTL=128
Reply from 192.168.105.112: bytes=32 time=10ms TTL=128
Reply from 192.168.105.112: bytes=32 time=10ms TTL=128

Ping statistics for 192.168.105.112:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 10ms, Maximum = 25ms, Average = 14ms
```

Laptop 100 > PC 1

```
PC>ping 172.168.105.1

Pinging 172.168.105.1 with 32 bytes of data:

Reply from 192.168.105.254: Destination host unreachable.
Reply from 192.168.105.254: Destination host unreachable.
Reply from 192.168.105.254: Destination host unreachable.
Reply from 192.168.105.254: Destination host unreachable.

Ping statistics for 172.168.105.1:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),
```

E. Analisis

Dari simulasi tersebut saya dapat menyimpulkan bahwa AP dilihat dari collision domain lebih mirip hub, karena ketika pesan berada di AP, pesan di broadcast di laptop 100, laptop 101, laptop 102. Sama halnya seperti hub, pesannya akan di broadcast terlebih dahulu, tidak seperti switch yang langsung dikirimkan langsung.