

NAMA: RIZKY HANIFUDIN

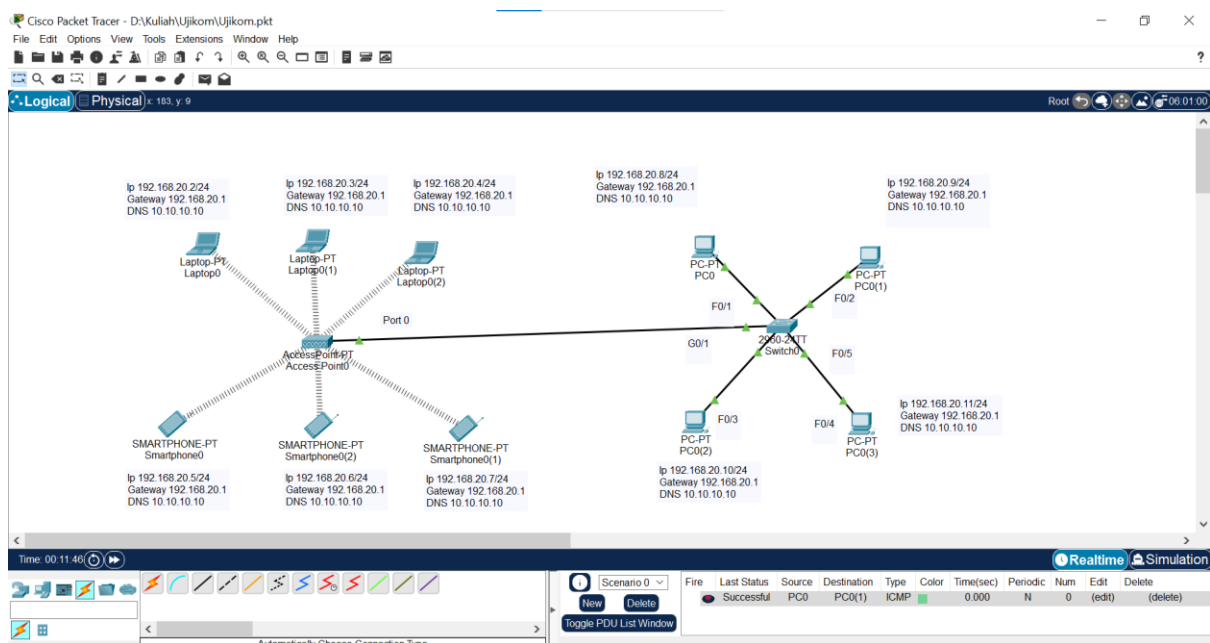
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UJIKOM NETWORK ADMINISTRATOR

## LAPORAN UJIKOM TUGAS 1

Step by step Instalation Network

### 1. Creat Topology Network



Berikut topology untuk network yang akan kita bangun. Pada topology ini kita menggunakan beberapa device diantaranya :

- Switch Manage : 1 Unit
- PC/Komputer : 4 Unit
- Smarthphone : 3 Unit
- Laptop : 3 Unit
- Accesspoint : 1 Unit

## 2. Configuration Device

PhysicalConfigDesktopProgrammingAttributes

MODULES

WPC300N

PT-LAPTOP-NM-1AM

PT-LAPTOP-NM-1CE

PT-LAPTOP-NM-1CFE

PT-LAPTOP-NM-1CGE

PT-LAPTOP-NM-1FFE

PT-LAPTOP-NM-1FGE

PT-LAPTOP-NM-1W

PT-LAPTOP-NM-1W-A

PT-LAPTOP-NM-1W-AC


PT-LAPTOP-NM-3G/4G

PT-HEADPHONE

PT-MICROPHONE


Physical Device View

Zoom InOriginal SizeZoom Out



Customize Icon in Physical ViewCustomize Icon in Logical View

The Linksys-WPC300N module provides one 2.4GHz wireless interface suitable for connection to wireless networks. The module supports protocols that use Ethernet for LAN access.



## - Configuration Laptop Device

Langkah setup pertama yang perlu di perhatikan di laptop yaitu :

- Matikan Power Laptop
- Kemudian Ganti Konektor LAN dengan Konektor Wireless
- Koneksikan ke Wireless/Accesspoint yang tersedia dengan

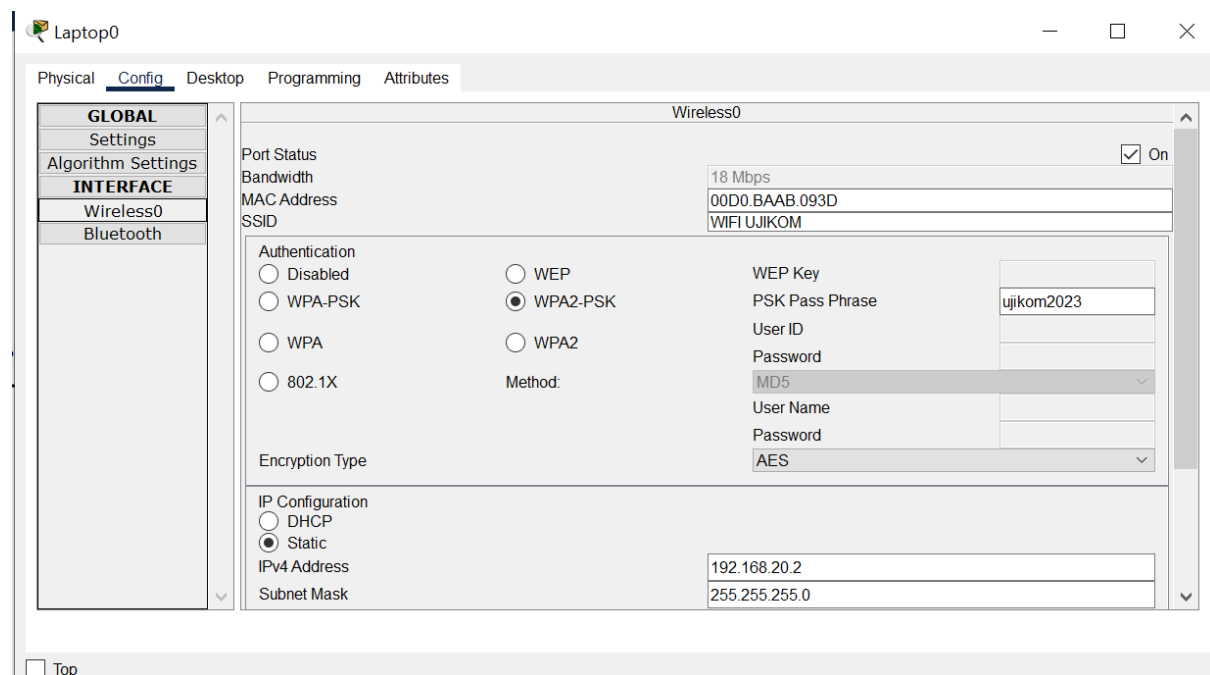
SSID : WIFI UJIKOM

Pass : ujikom2023

- Setup IP Address Pada Laptop0 : 192.168.20.2/24

- Setup IP Address Pada Laptop0 : 192.168.20.3/24

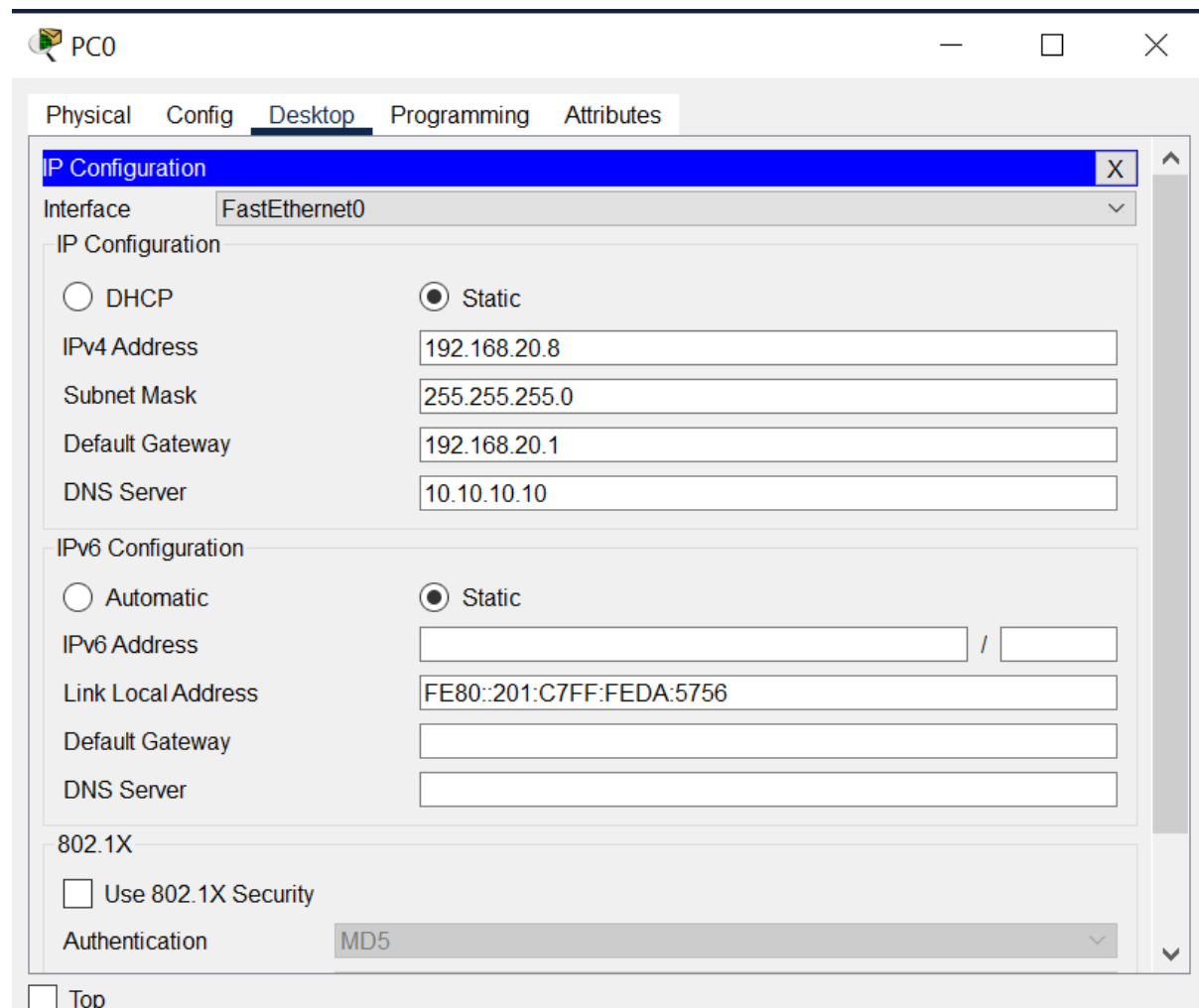
- Setup IP Address Pada Laptop0 : 192.168.20.4/24



## - Configuration PC/Komputer Device

Langkah setup pertama yang perlu di lakukan di Komputer yaitu :

- Setup IP address Pada PC0 : 192.168.20.8/24
- Setup IP address Pada PC1 : 192.168.20.9/24
- Setup IP address Pada PC2 : 192.168.20.10/24
- Setup IP address Pada PC3 : 192.168.20.11/24



The screenshot shows a window titled "PC0" with a standard Windows-style title bar (minimize, maximize, close buttons). The window has a tabbed interface with four tabs: "Physical", "Config", "Desktop" (which is selected), and "Attributes". The "Desktop" tab contains a configuration panel for the "FastEthernet0" interface. The panel is titled "IP Configuration" and has a close button (X) in the top right corner. It is divided into three sections: "IP Configuration", "IPv6 Configuration", and "802.1X". In the "IP Configuration" section, the "Static" radio button is selected, and the fields for "IPv4 Address", "Subnet Mask", "Default Gateway", and "DNS Server" are filled with the values 192.168.20.8, 255.255.255.0, 192.168.20.1, and 10.10.10.10 respectively. In the "IPv6 Configuration" section, the "Static" radio button is also selected, and the "Link Local Address" field is filled with FE80::201:C7FF:FEDA:5756. The "802.1X" section has a checkbox for "Use 802.1X Security" which is unchecked, and a dropdown menu for "Authentication" set to "MD5". At the bottom left of the window, there is a "Top" button.

PC0

Physical Config **Desktop** Programming Attributes

IP Configuration X

Interface FastEthernet0

IP Configuration

☐ DHCP ☒ Static

IPv4 Address 192.168.20.8

Subnet Mask 255.255.255.0

Default Gateway 192.168.20.1

DNS Server 10.10.10.10

IPv6 Configuration

☐ Automatic ☒ Static

IPv6 Address /

Link Local Address FE80::201:C7FF:FEDA:5756

Default Gateway

DNS Server

802.1X

☐ Use 802.1X Security

Authentication MD5

☐ Top

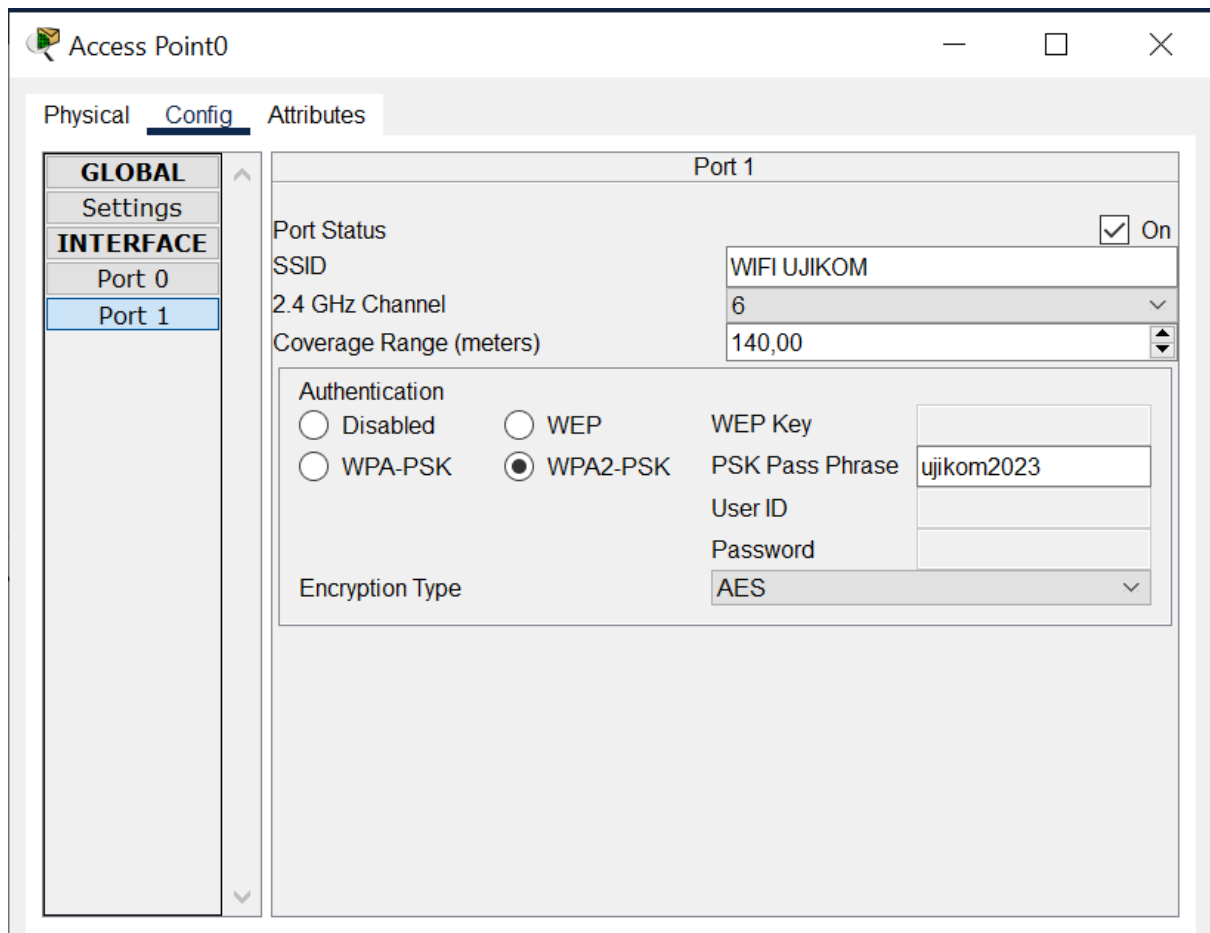
## - Configuration Accesspoint device

Langkah setup pertama yang perlu di perhatikan di Accesspoint yaitu :

- Setup

SSID : WIFI UJIKOM

Pass : ujikom2023



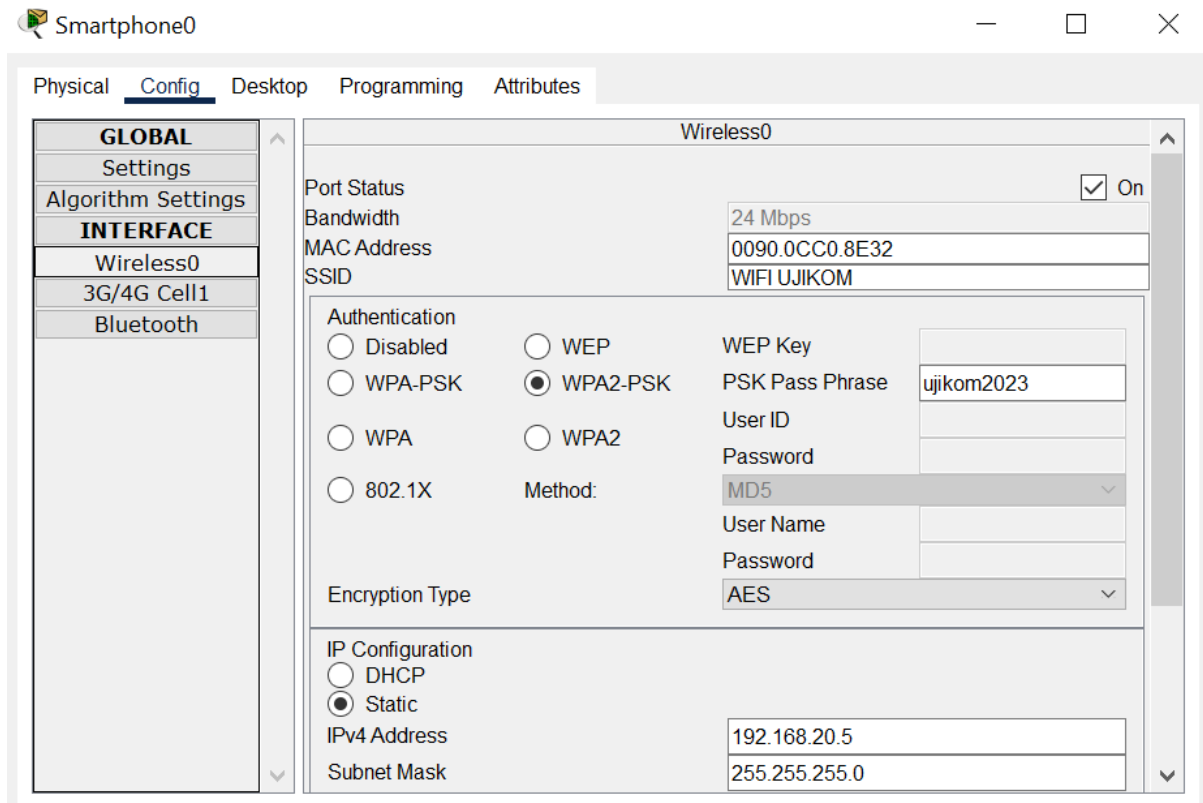
The screenshot shows the configuration window for an Access Point, titled "Access Point0". The window has three tabs: "Physical", "Config", and "Attributes". The "Config" tab is selected. On the left, there is a sidebar with a tree view showing "GLOBAL" and "INTERFACE". Under "INTERFACE", "Port 0" and "Port 1" are listed, with "Port 1" selected. The main area displays the configuration for "Port 1".

Port 1	
Port Status	<input checked="" type="checkbox"/> On
SSID	WIFI UJIKOM
2.4 GHz Channel	6
Coverage Range (meters)	140,00
<b>Authentication</b>	
<input type="radio"/> Disabled	<input type="radio"/> WEP
<input type="radio"/> WPA-PSK	<input checked="" type="radio"/> WPA2-PSK
WEP Key	
PSK Pass Phrase	ujikom2023
User ID	
Password	
Encryption Type	AES

## - Configuration Smartphone device

Langkah setup pertama yang di perhatikan di Smartphone yaitu :

- Koneksikan ke wireless atau SSID yang sudah di setup SSID : WIFI UJIKOM, Password : ujikom2023

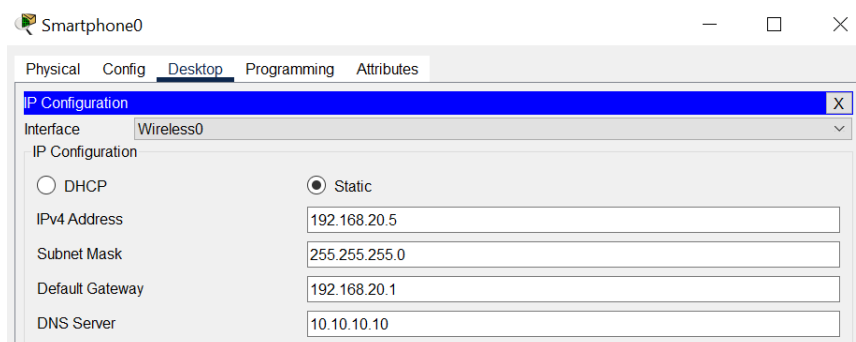


- Setup IP Address Static pada ke 3 handphone tersebut

IP Address HP0 : 192.168.20.5/24

IP Address HP1 : 192.168.20.6/24

IP Address HP2 : 192.168.20.7/24



## - Configuration Switch device

- Add Mac Filtering pada setiap interface sesuai dengan mac terhubung

```
Switch>
Switch>enable
Switch#
Switch#configure terminal
Enter configuration commands, one per line.  End with CNTL/Z.
Switch(config)#interface FastEthernet0/1
Switch(config-if)#switchport mode access
Switch(config-if)#switchport port-security
Switch(config-if)#switchport port-security mac-address sticky
Switch(config-if)#switchport port-security mac-address 0001.C7DA.5756
Found duplicate mac-address 0001.c7da.5756.
Switch(config-if)#
Switch(config-if)#exit
Switch(config)#interface FastEthernet0/1
Switch(config-if)#
Switch(config-if)#exit
Switch(config)#interface FastEthernet0/2
Switch(config-if)#switchport mode access
Switch(config-if)#switchport port-security
Switch(config-if)#switchport port-security mac-address sticky
Switch(config-if)#switchport port-security mac-address 000D.BD73.A741
Found duplicate mac-address 000d.bd73.a741.
Switch(config-if)#
Switch(config-if)#exit
Switch(config)#interface FastEthernet0/2
Switch(config-if)#
Switch(config-if)#exit
Switch(config)#interface FastEthernet0/3
Switch(config-if)#switchport mode access
Switch(config-if)#switchport port-security
Switch(config-if)#switchport port-security mac-address sticky
Switch(config-if)#switchport port-security mac-address 00D0.587D.6B80
Found duplicate mac-address 00d0.587d.6b80.
Switch(config-if)#
```

Hasil:

```
Switch#show mac-address-table
                Mac Address Table
-----
Vlan    Mac Address      Type      Ports
----    -
1       0001.c7da.5756    STATIC    Fa0/1
1       000d.bd73.a741    STATIC    Fa0/2
1       00d0.587d.6b80    STATIC    Fa0/3
Switch#
```

### 3. Testing Hasil Configuration

- Test Ping dari PC0

PC0 ke PC1

Result :

```
C:\>ping 192.168.20.9

Pinging 192.168.20.9 with 32 bytes of data:

Reply from 192.168.20.9: bytes=32 time<1ms TTL=128
Reply from 192.168.20.9: bytes=32 time<1ms TTL=128
Reply from 192.168.20.9: bytes=32 time<1ms TTL=128
Reply from 192.168.20.9: bytes=32 time<1ms TTL=128
```

PC0 ke Smarthphone0

Result :

```
C:\>ping 192.168.20.2

Pinging 192.168.20.2 with 32 bytes of data:

Reply from 192.168.20.2: bytes=32 time=6ms TTL=128
Reply from 192.168.20.2: bytes=32 time=8ms TTL=128
Reply from 192.168.20.2: bytes=32 time=5ms TTL=128
Reply from 192.168.20.2: bytes=32 time=6ms TTL=128
```

PC0 ke Laptop0

Result :

```
C:\>ping 192.168.20.5

Pinging 192.168.20.5 with 32 bytes of data:

Reply from 192.168.20.5: bytes=32 time=2ms TTL=128
Reply from 192.168.20.5: bytes=32 time=23ms TTL=128
Reply from 192.168.20.5: bytes=32 time=38ms TTL=128
Reply from 192.168.20.5: bytes=32 time=30ms TTL=128
```



# RESULT FINISH

