

COMPUTER NETWORKS PRACTICUM

Modul 5 – DHCP Server and Web Server



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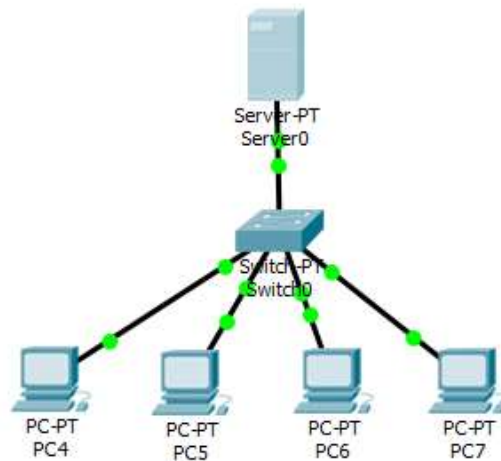
MUHAMMADIYAH UNIVERSITY OF SURAKARTA

2020

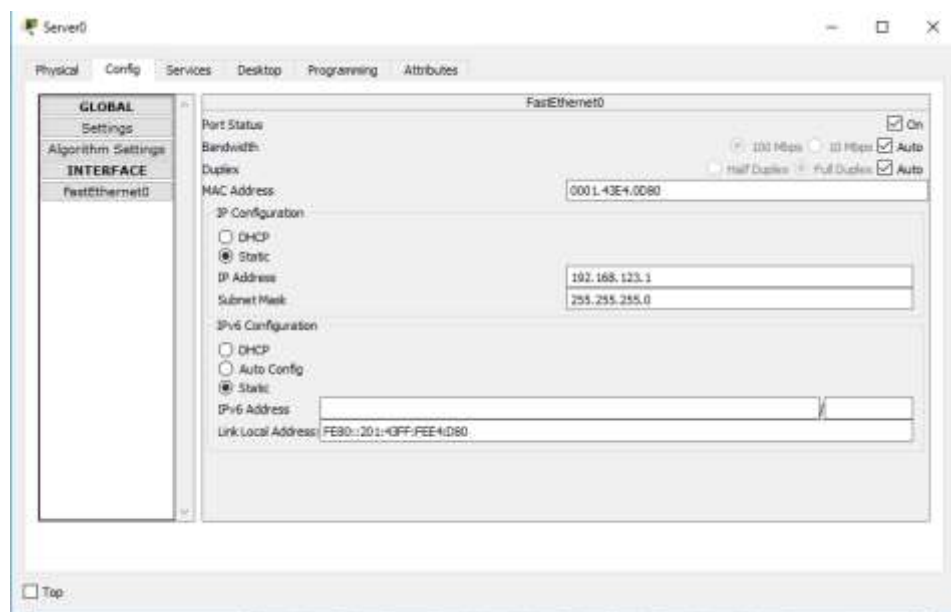
KEGIATAN

A. Practicum 1 Make DHCP Server

➤ Gambar rancangan DHCP Server



➤ Konfigurasi pada Server0



➤ Services pada Server0

The screenshot shows the 'Server0' configuration window with the 'Services' tab selected. On the left, a 'SERVICES' list includes HTTP, DHCP, DHCPv6, TFTP, DNS, SYSLOG, AAA, NTP, EMAIL, FTP, IoT, and VM Management. The 'DHCP' service is configured for the 'FastEthernet0' interface with the 'Service' set to 'On'. The configuration fields are as follows:

- Interface: FastEthernet0
- Service: ☒ On, ☐ Off
- Pool Name: serverPool
- Default Gateway: 0.0.0.0
- DNS Server: 0.0.0.0
- Start IP Address: 192, 168, 123, 19
- Subnet Mask: 255, 255, 255, 0
- Maximum Number of Users: 5
- TFTP Server: 0.0.0.0
- WLC Address: 0.0.0.0

Below the configuration fields are 'Add', 'Save', and 'Remove' buttons. A table at the bottom lists the configured DHCP pool:

Pool Name	Default Gateway	DNS Server	Start IP Address	Subnet Mask	Max User	TFTP Server	WLC Address
serverPool	0.0.0.0	0.0.0.0	192.168.123	255.255.255.0	5	0.0.0.0	0.0.0.0

➤ IP Config pada PC

The screenshot shows the 'PC4' configuration window with the 'Config' tab selected. The 'IP Configuration' section is active, showing the following settings:

- ☒ DHCP (Static is also an option)
- IP Address: 192.168.123.19
- Subnet Mask: 255.255.255.0
- Default Gateway: 0.0.0.0
- DNS Server: 0.0.0.0

The 'IPv6 Configuration' section is also visible, with the following settings:

- ☐ DHCP, ☐ Auto Config, ☒ Static
- IPv6 Address: (empty field)
- Link Local Address: FE80::202:16FF:FE65:9214
- IPv6 Gateway: (empty field)
- IPv6 DNS Server: (empty field)

PC3

Physical Config Desktop Programming Attributes

IP Configuration

☒ DHCP ☐ Static DHCP request successful

IP Address 192.168.123.20

Subnet Mask 255.255.255.0

Default Gateway 0.0.0.0

DNS Server 0.0.0.0

IPv6 Configuration

☐ DHCP ☐ Auto Config ☒ Static

IPv6 Address

Link Local Address FE80::201:42FF:FEED:8860

IPv6 Gateway

IPv6 DNS Server

Top

PC5

Physical Config Desktop Programming Attributes

IP Configuration

☒ DHCP ☐ Static DHCP request successful

IP Address 192.168.123.21

Subnet Mask 255.255.255.0

Default Gateway 0.0.0.0

DNS Server 0.0.0.0

IPv6 Configuration

☐ DHCP ☐ Auto Config ☒ Static

IPv6 Address

Link Local Address FE80::203:42FF:FEED:876A

IPv6 Gateway

IPv6 DNS Server

Top

PC7

Physical Config Desktop Programming Attributes

IP Configuration

☒ DHCP ☐ Static DHCP request successful

IP Address 192.168.123.22

Subnet Mask 255.255.255.0

Default Gateway 0.0.0.0

DNS Server 0.0.0.0

IPv6 Configuration

☐ DHCP ☐ Auto Config ☒ Static

IPv6 Address

Link Local Address FE80::208:82FF:FECD:C905

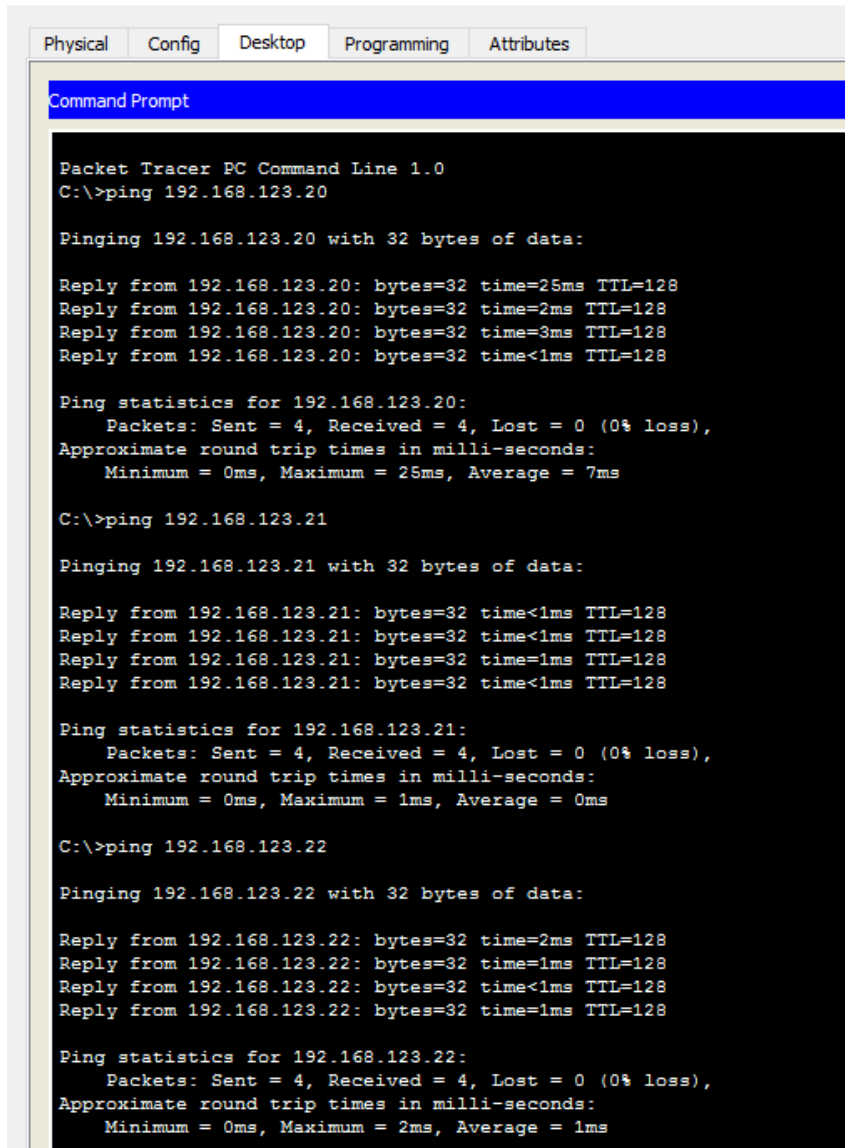
IPv6 Gateway

IPv6 DNS Server

Top

➤ Ping ke seluruh PC

PC4



The screenshot shows the Packet Tracer interface for PC4. The 'Desktop' tab is selected, displaying a 'Command Prompt' window. The window contains the output of three ping commands executed from the PC. Each command shows four successful replies with 32 bytes of data, 0% loss, and round trip times in milliseconds. The first ping is to 192.168.123.20, the second to 192.168.123.21, and the third to 192.168.123.22.

```
Packet Tracer PC Command Line 1.0
C:\>ping 192.168.123.20

Pinging 192.168.123.20 with 32 bytes of data:

Reply from 192.168.123.20: bytes=32 time=25ms TTL=128
Reply from 192.168.123.20: bytes=32 time=2ms TTL=128
Reply from 192.168.123.20: bytes=32 time=3ms TTL=128
Reply from 192.168.123.20: bytes=32 time<1ms TTL=128

Ping statistics for 192.168.123.20:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 25ms, Average = 7ms

C:\>ping 192.168.123.21

Pinging 192.168.123.21 with 32 bytes of data:

Reply from 192.168.123.21: bytes=32 time<1ms TTL=128
Reply from 192.168.123.21: bytes=32 time<1ms TTL=128
Reply from 192.168.123.21: bytes=32 time=1ms TTL=128
Reply from 192.168.123.21: bytes=32 time<1ms TTL=128

Ping statistics for 192.168.123.21:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 1ms, Average = 0ms

C:\>ping 192.168.123.22

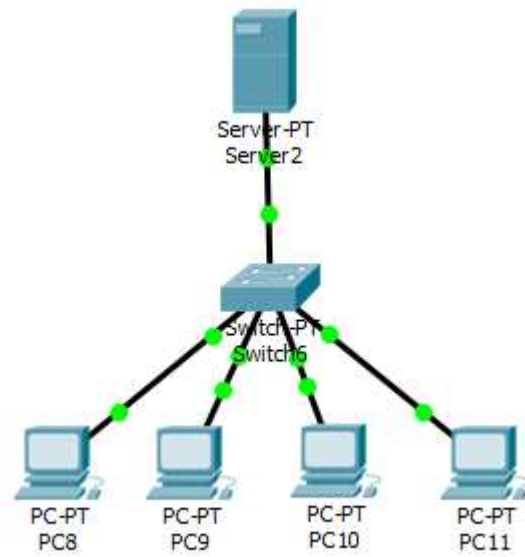
Pinging 192.168.123.22 with 32 bytes of data:

Reply from 192.168.123.22: bytes=32 time=2ms TTL=128
Reply from 192.168.123.22: bytes=32 time=1ms TTL=128
Reply from 192.168.123.22: bytes=32 time<1ms TTL=128
Reply from 192.168.123.22: bytes=32 time=1ms TTL=128

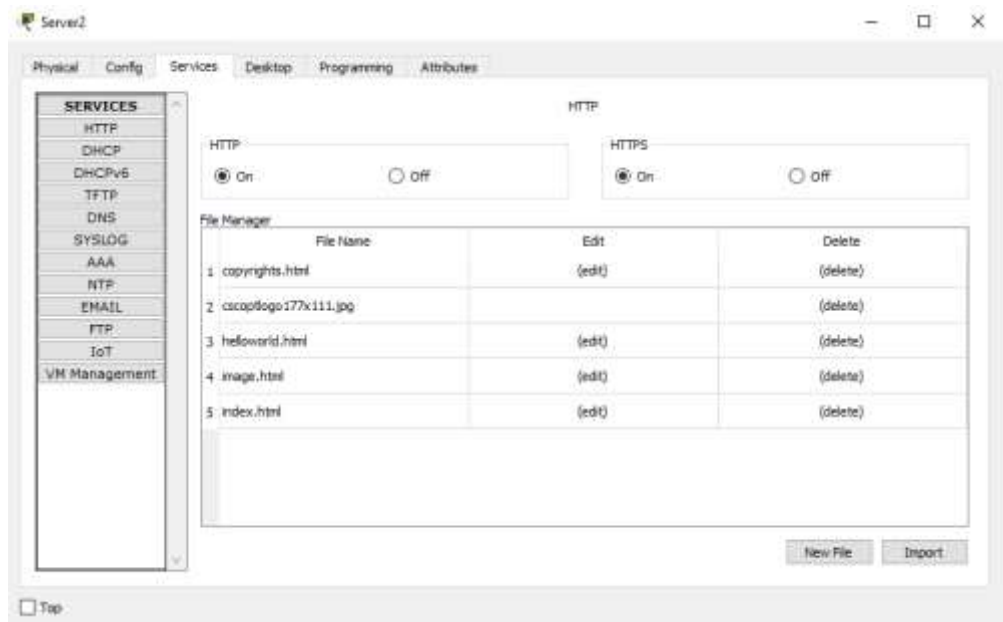
Ping statistics for 192.168.123.22:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 2ms, Average = 1ms
```

B. Prakticum 2 Make Web Server

➤ Gambar rancangan DHCP Server



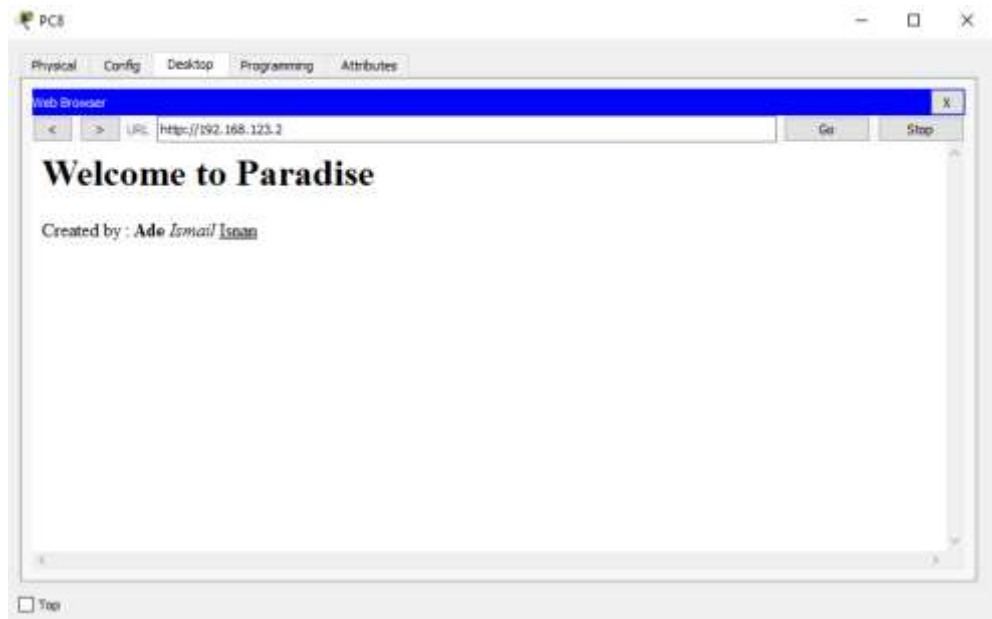
➤ Konfigurasi HTTP



➤ **Konfigurasi pada file index.html**

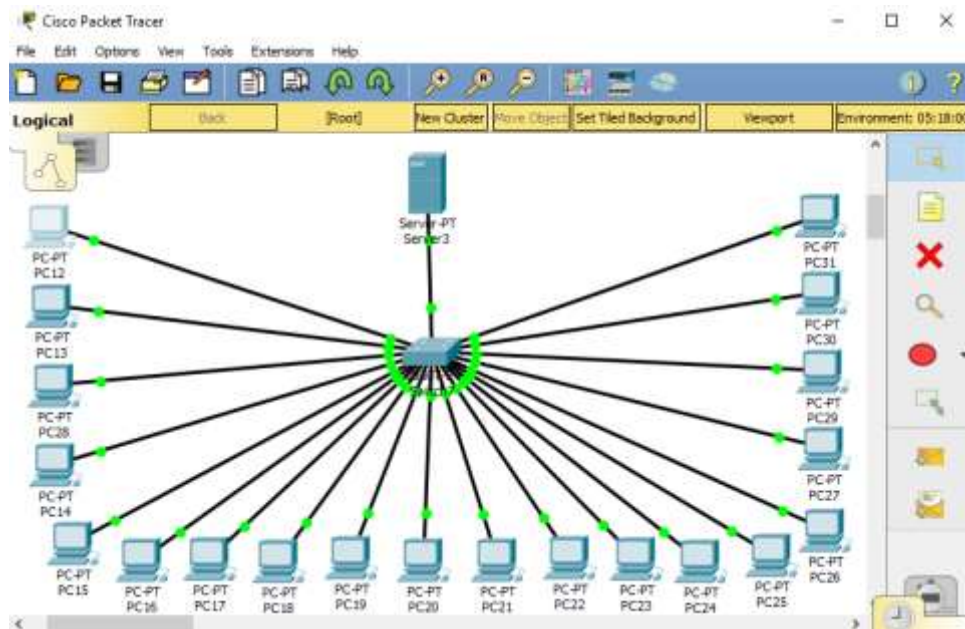


➤ **Hail pada web browser salah satu PC**

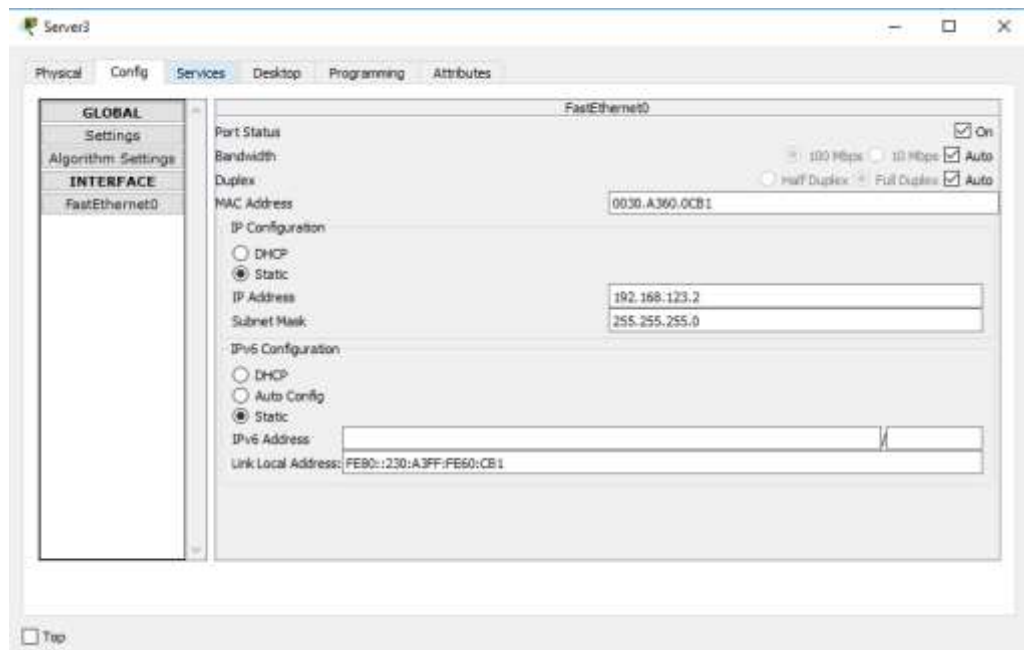


ASSIGNMENT

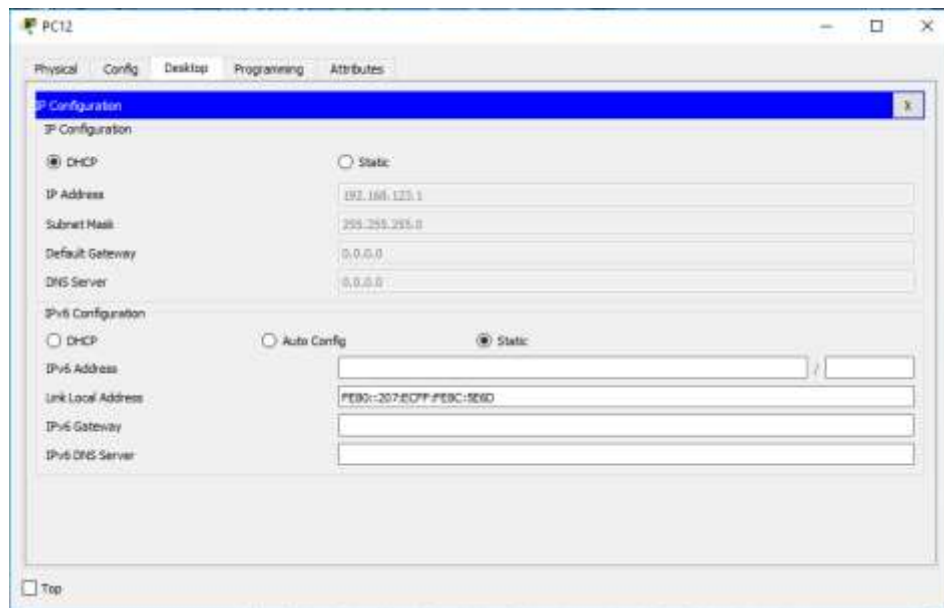
➤ Gambar rancangan DHCP Server



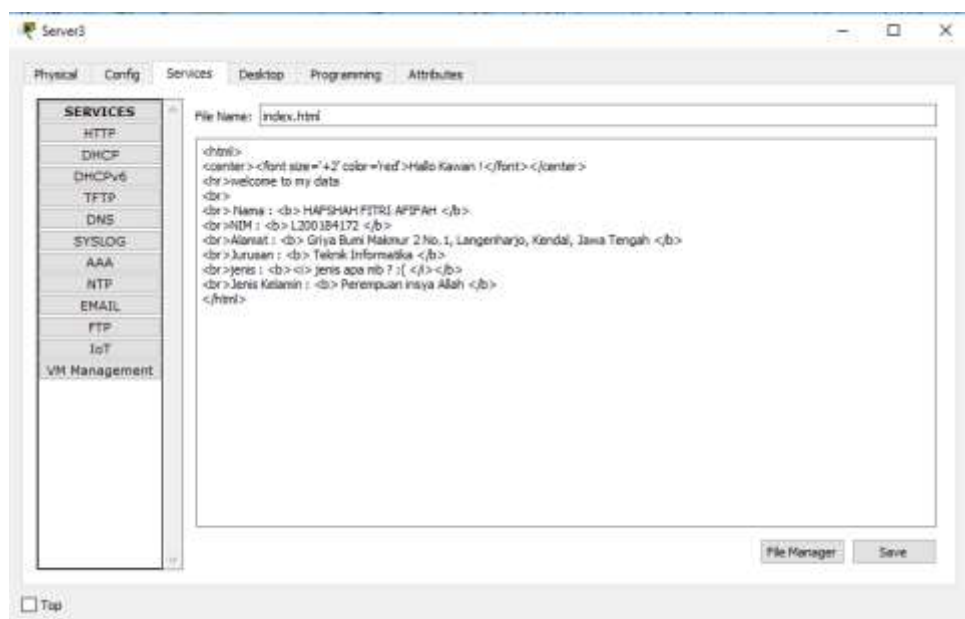
➤ Konfigurasi pada Server



➤ **Konfigurasi pada PC**



➤ **Konfigurasi pada file index.html**



- Hasil pada web browser salah satu PC

