

Nama : Muhammad Rizqi Erdyansyah

NIM : L200180171

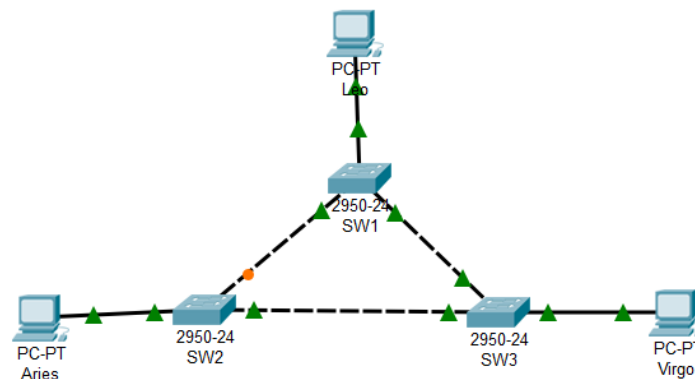
Kelas : D

Laporan Kegiatan Praktikum Jaringan Komputer

Modul 6

Kegiatan 1

1. Topologi Jaringan

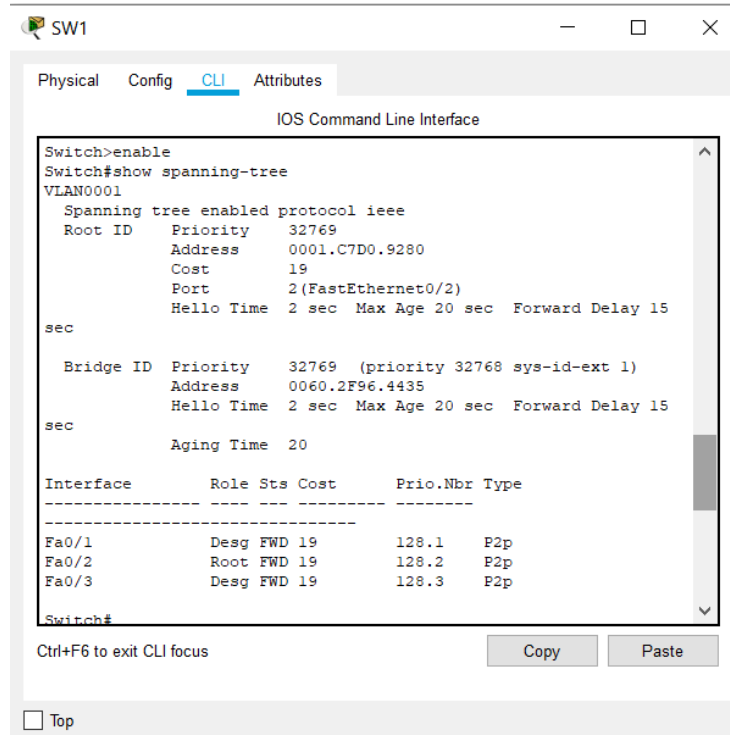


- Tugas 1A : Tulis langkah pembuatan topologi
 - 1) Pilih Switch 2950 sebanyak 3 buah.
 - 2) Pilih PC sebanyak 3 buah.
 - 3) Gunakan kabel yang auto untuk mempermudah.
 - 4) Rangkai Rangkaian seperti gambar diatas.
- 2. **Beri nama masing-masing switch dengan SW1, SW2 dan SW3**
 - Tugas 2A : Tulis langkah pemberian nama switch mulai dari mode user
 - 1) Klik Switch yang dipilih
 - 2) Klik Config
 - 3) Pada pilihan display name ganti dengan nama switch yang diinginkan
- 3. **Konfigurasi masing-masing PC dengan alamat IP**
 - Leo = 172.21.1.1/24
 - Aries = 172.21.1.2/24
 - Virgo = 172.21.1.3/24

4. Melihat spanning-tree masing-masing switch

Tugas 4A : Pada kondisi default, capture masing-masing tampilan status STP switch (SW1, SW2 dan SW3)

SW1



SW1

Physical Config **CLI** Attributes

IOS Command Line Interface

```
Switch>enable
Switch#show spanning-tree
VLAN0001
  Spanning tree enabled protocol ieee
  Root ID    Priority    32769
            Address    0001.C7D0.9280
            Cost        19
            Port        2(FastEthernet0/2)
            Hello Time  2 sec  Max Age 20 sec  Forward Delay 15
sec

  Bridge ID  Priority    32769 (priority 32768 sys-id-ext 1)
            Address    0060.2F96.4435
            Hello Time  2 sec  Max Age 20 sec  Forward Delay 15
sec

            Aging Time  20

Interface    Role Sts Cost      Prio.Nbr Type
-----
Fa0/1        Desg FWD 19        128.1    P2p
Fa0/2        Root FWD 19        128.2    P2p
Fa0/3        Desg FWD 19        128.3    P2p

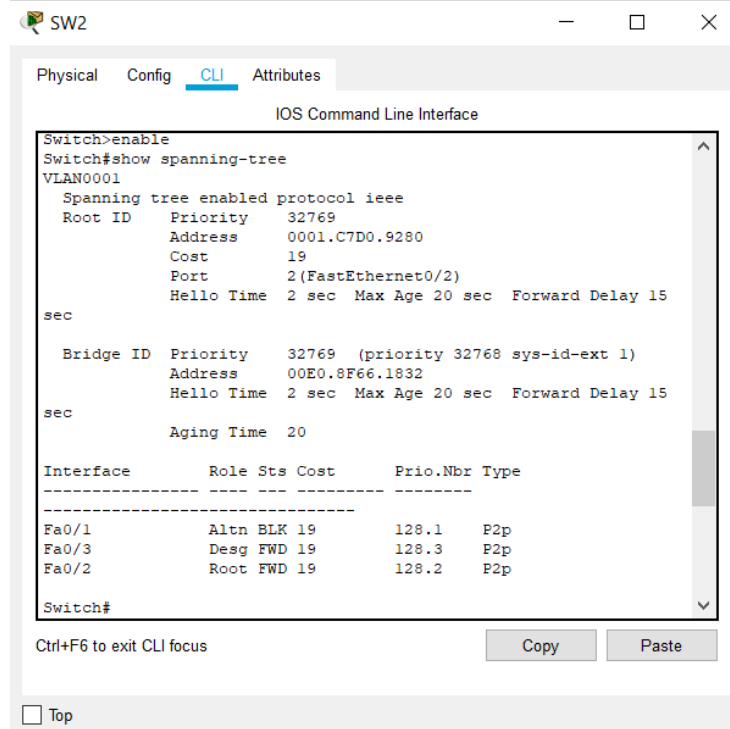
Switch#
```

Ctrl+F6 to exit CLI focus

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SW2



SW2

Physical Config **CLI** Attributes

IOS Command Line Interface

```
Switch>enable
Switch#show spanning-tree
VLAN0001
  Spanning tree enabled protocol ieee
  Root ID    Priority    32769
            Address    0001.C7D0.9280
            Cost        19
            Port        2(FastEthernet0/2)
            Hello Time  2 sec  Max Age 20 sec  Forward Delay 15
sec

  Bridge ID  Priority    32769 (priority 32768 sys-id-ext 1)
            Address    00E0.8F66.1832
            Hello Time  2 sec  Max Age 20 sec  Forward Delay 15
sec

            Aging Time  20

Interface    Role Sts Cost      Prio.Nbr Type
-----
Fa0/1        Altn BLK 19        128.1    P2p
Fa0/3        Desg FWD 19        128.3    P2p
Fa0/2        Root FWD 19        128.2    P2p

Switch#
```

Ctrl+F6 to exit CLI focus

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SW3

```

Switch>enable
Switch#show spanning-tree
VLAN0001
  Spanning tree enabled protocol ieee
  Root ID    Priority    32769
             Address     0001.C7D0.9280
             This bridge is the root
             Hello Time 2 sec  Max Age 20 sec  Forward Delay 15
             sec

  Bridge ID  Priority    32769  (priority 32768 sys-id-ext 1)
             Address     0001.C7D0.9280
             Hello Time 2 sec  Max Age 20 sec  Forward Delay 15
             sec

             Aging Time 20

Interface          Role Sts Cost          Prio.Nbr Type
-----
Fa0/1              Desg FWD 19          128.1   P2p
Fa0/3              Desg FWD 19          128.3   P2p
Fa0/2              Desg FWD 19          128.2   P2p
Switch#
  
```

Ctrl+F6 to exit CLI focus

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Tugas 4B : Untuk tiap-tiap switch, isikan table berikut:

SW1

No	Variabel	Nilai
1	Root ID	32769, 0001.C7D0.9280
2	Priority	32769
3	MAC Address	0001.C7D0.9280
4	Bridge ID	32769, 0060.2F96.4435
5	Cost(0/1;0/2;0/3	0/1;Desg,FWD,19 0/2;Root,FWD,19 0/3;Desg,FWD,19
6	Hello Time	2 sec
7	Max Age	20 sec
8	Forward Delay	15 sec

SW2

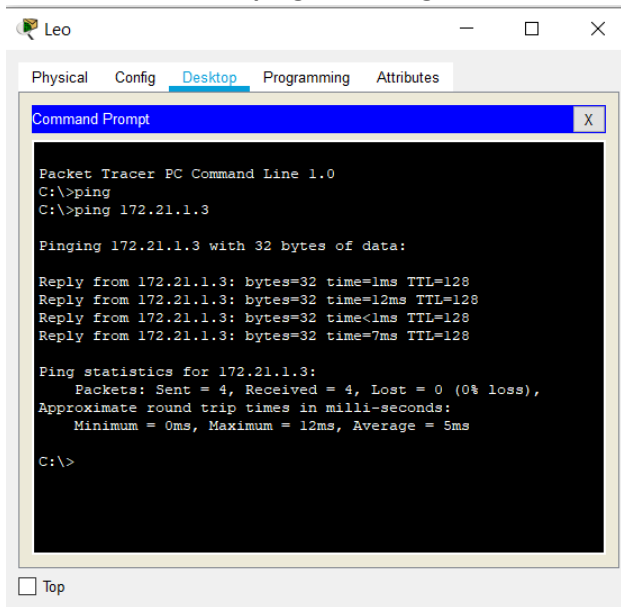
No	Variabel	Nilai
1	Root ID	32769, 0001.C7DO.9280
2	Priority	32769
3	MAC Address	0001.C7DO.9280
4	Bridge ID	32769, 00E0.8F66.1832
5	Cost(0/1;0/2;0/3	0/1; Altn,BLK,19 0/2;Root,FWD,19 0/3;Desg,FWD,19
6	Hello Time	2 sec
7	Max Age	20 sec
8	Forward Dela	15 sec

SW3

No	Variabel	Nilai
1	Root ID	32769, 0001.C7DO.9280
2	Priority	32769
3	MAC Address	0001.C7DO.9280
4	Bridge ID	32769, 0001.C7DO.9280
5	Cost(0/1;0/2;0/3	0/1;Desg,FWD,19 0/2;Desg,FWD,19 0/3;Desg,FWD,19
6	Hello Time	2 sec
7	Max Age	20 sec
8	Forward Delay	15 sec

- Tugas 4C : Pada Kondisi default, switch dan port mana saja yang:
 - ❖ Menjadi root bridge : SW3
 - ❖ Menjadi designated bridge : SW3
 - ❖ Menjadi root port : SW1(Fa0/2) dan SW2(Fa0/2)
 - ❖ Menjadi designated port : SW1(Fa0/1, Fa0/3),
SW2(Fa0/3) dan SW3(Fa0/1,
Fa0/2, Fa0/3)
- Tugas 4D : Pada Kondisi default, switch dan port mana saja yang:
 - ❖ Berada pada keadaan forwarding : SW1(Fa0/1, Fa0/2, Fa0/3), SW2(Fa0/3,
Fa0/2) dan SW3(Fa0/1, Fa0/2, Fa0/3)
 - ❖ Berada pada keadaan blocking : SW2(Fa0/1)

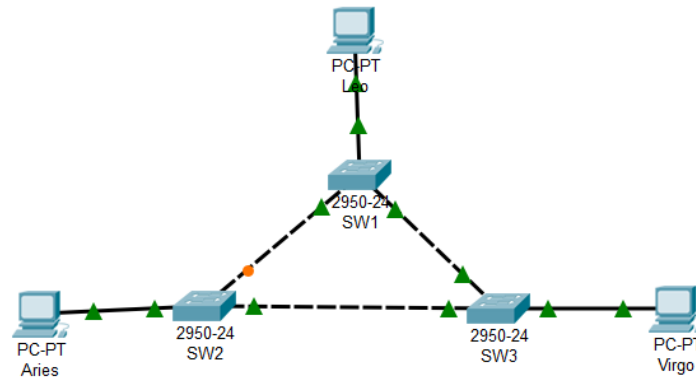
5. Dari PC Leo lakukan ping ke PC Virgo



- Tugas 5A : Tulis langkah untuk menyimpan perintah ping
 - ❖ Klik pada PC Leo
 - ❖ Klik Desktop
 - ❖ Klik Command Prompt
 - ❖ ketik Ping IP PC Virgo (172.21.1.3)
- Tugas 6A: Tulislah langkah untuk menyimpan konfigurasi jaringan.
 - ❖ Klik "File"
 - ❖ Pilih "Save as"
 - ❖ Pilih direktori
 - ❖ Ketikkan nama file "lab2.nwc"
 - ❖ Klik "save"

Kegiatan 2

1. Topologi Jaringan

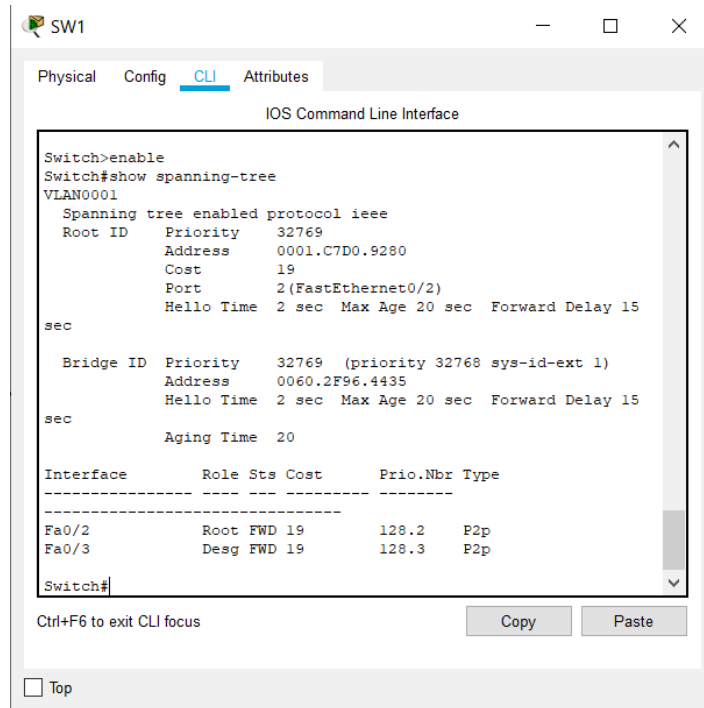


- Tugas 1A : Tulis langkah pembuatan topologi
 - 1) Pilih Switch 2950 sebanyak 3 buah.
 - 2) Pilih PC sebanyak 3 buah.
 - 3) Gunakan kabel yang auto untuk mempermudah.
 - 4) Rangkai Rangkaian seperti gambar diatas.
- 2. Beri nama masing-masing switch dengan SW1, SW2 dan SW3**
- Tugas 2A : Tulis langkah pemberian nama switch mulai dari mode user
 - 1) Klik Switch yang dipilih
 - 2) Klik Config
 - 3) Pada pilihan display name ganti dengan nama switch yang diinginkan
- 3. Konfigurasi masing-masing PC dengan alamat IP**
 - Leo = 172.21.1.1/24
 - Aries = 172.21.1.2/24
 - Virgo = 172.21.1.3/24

4. Melihat spanning-tree masing-masing switch

Tugas 4A : Pada kondisi default, capture masing-masing tampilan status STP switch (SW1, SW2 dan SW3)

SW1



SW1

Physical Config **CLI** Attributes

IOS Command Line Interface

```
Switch>enable
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VLAN0001
  Spanning tree enabled protocol ieee
  Root ID    Priority    32769
            Address    0001.C7D0.9280
            Cost        19
            Port        2 (FastEthernet0/2)
            Hello Time  2 sec  Max Age 20 sec  Forward Delay 15
sec
            Bridge ID  Priority    32769  (priority 32768 sys-id-ext 1)
            Address    0060.2F96.4435
            Hello Time  2 sec  Max Age 20 sec  Forward Delay 15
sec
            Aging Time  20

Interface    Role Sts Cost      Prio.Nbr Type
-----
Fa0/2        Root FWD 19        128.2    P2p
Fa0/3        Desg FWD 19        128.3    P2p

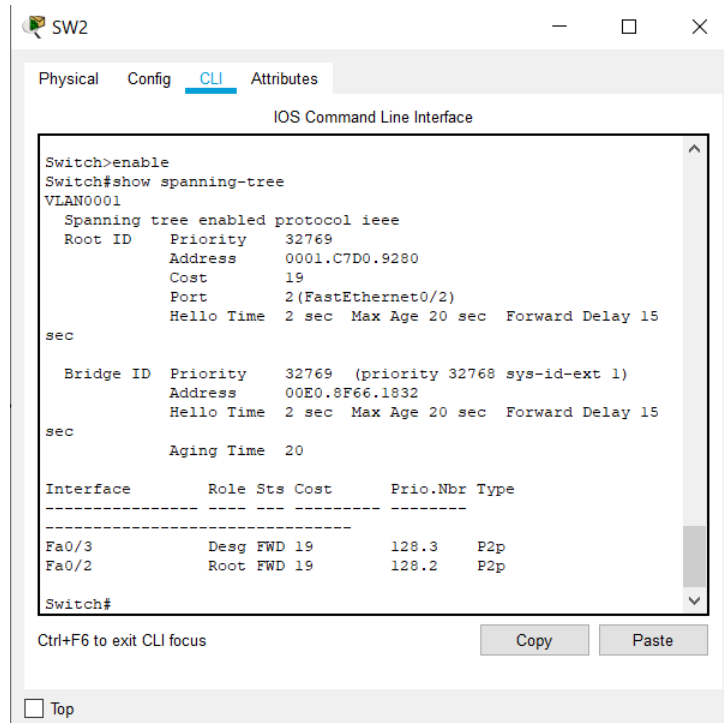
Switch#
```

Ctrl+F6 to exit CLI focus

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SW2



SW2

Physical Config **CLI** Attributes

IOS Command Line Interface

```
Switch>enable
Switch#show spanning-tree
VLAN0001
  Spanning tree enabled protocol ieee
  Root ID    Priority    32769
            Address    0001.C7D0.9280
            Cost        19
            Port        2 (FastEthernet0/2)
            Hello Time  2 sec  Max Age 20 sec  Forward Delay 15
sec
            Bridge ID  Priority    32769  (priority 32768 sys-id-ext 1)
            Address    00E0.8F66.1832
            Hello Time  2 sec  Max Age 20 sec  Forward Delay 15
sec
            Aging Time  20

Interface    Role Sts Cost      Prio.Nbr Type
-----
Fa0/3        Desg FWD 19        128.3    P2p
Fa0/2        Root FWD 19        128.2    P2p

Switch#
```

Ctrl+F6 to exit CLI focus

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SW3

The screenshot shows a window titled 'SW3' with tabs for 'Physical', 'Config', 'CLI', and 'Attributes'. The 'CLI' tab is active, displaying the 'IOS Command Line Interface'. The command sequence entered is:

```
Switch>enable
Switch#show spanning-tree
VLAN0001
  Spanning tree enabled protocol ieee
  Root ID    Priority    32769
            Address     0001.C7D0.9280
            This bridge is the root
            Hello Time 2 sec Max Age 20 sec Forward Delay 15
sec
  Bridge ID  Priority    32769 (priority 32768 sys-id-ext 1)
            Address     0001.C7D0.9280
            Hello Time 2 sec Max Age 20 sec Forward Delay 15
sec
            Aging Time 20

Interface      Role Sts Cost      Prio.Nbr Type
-----
Fa0/1          Desg FWD 19      128.1    P2p
Fa0/3          Desg FWD 19      128.3    P2p
Fa0/2          Desg FWD 19      128.2    P2p

Switch#
```

Below the CLI window, there are buttons for 'Copy' and 'Paste', and a checkbox labeled 'Top'.

Tugas 4B : Untuk tiap-tiap switch, isikan table berikut:

SW1

No	Variabel	Nilai
1	Root ID	32769, 0001.C7D0.9280
2	Priority	32769
3	MAC Address	0001.C7D0.9280
4	Bridge ID	32769, 0060.2F96.4435
5	Cost(0/1;0/2;0/3	0/2;Root,FWD,19 0/3;Desg,FWD,19
6	Hello Time	2 sec
7	Max Age	20 sec
8	Forward Delay	15 sec

SW2

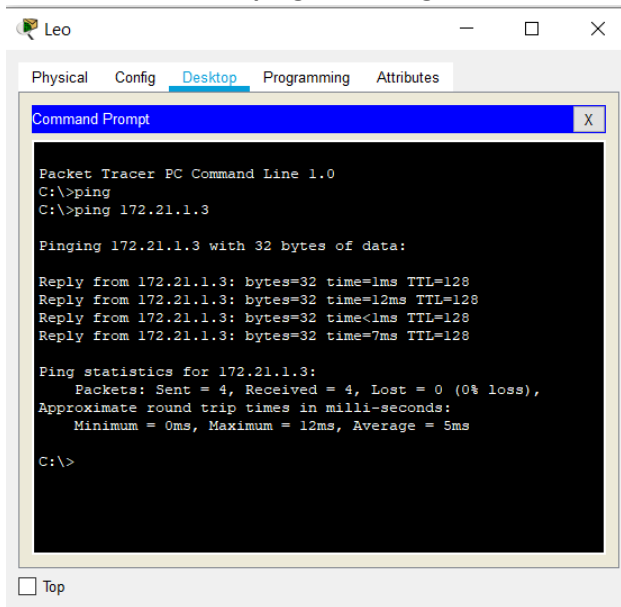
No	Variabel	Nilai
1	Root ID	32769, 0001.C7DO.9280
2	Priority	32769
3	MAC Address	0001.C7DO.9280
4	Bridge ID	32769, 00E0.8F66.1832
5	Cost(0/1;0/2;0/3	0/2;Root,FWD,19 0/3;Desg,FWD,19
6	Hello Time	2 sec
7	Max Age	20 sec
8	Forward Dela	15 sec

SW3

No	Variabel	Nilai
1	Root ID	32769, 0001.C7DO.9280
2	Priority	32769
3	MAC Address	0001.C7DO.9280
4	Bridge ID	32769, 0001.C7DO.9280
5	Cost(0/1;0/2;0/3	0/1;Desg,FWD,19 0/2;Desg,FWD,19 0/3;Desg,FWD,19
6	Hello Time	2 sec
7	Max Age	20 sec
8	Forward Delay	15 sec

- Tugas 4C : Pada Kondisi default, switch dan port mana saja yang:
 - ❖ Menjadi root bridge : SW3
 - ❖ Menjadi designated bridge : SW3
 - ❖ Menjadi root port : SW1(Fa0/2) dan SW2(Fa0/2)
 - ❖ Menjadi designated port : SW1(Fa0/3),
SW2(Fa0/3) dan
SW3(Fa0/1, Fa0/2,
Fa0/3)
- Tugas 4D : Pada Kondisi default, switch dan port mana saja yang:
 - ❖ Berada pada keadaan forwarding : SW1(Fa0/1, Fa0/2, Fa0/3), SW2(Fa0/3,
Fa0/2) dan SW3(Fa0/1, Fa0/2, Fa0/3)
 - ❖ Berada pada keadaan blocking : -

5. Dari PC Leo lakukan ping ke PC Virgo



- Tugas 5A : Tulis langkah untuk menyimpan perintah ping
 - ❖ Klik pada PC Leo
 - ❖ Klik Desktop
 - ❖ Klik Command Prompt
 - ❖ ketik Ping IP PC Virgo (172.21.1.3)
- Tugas 6A: Tulislah langkah untuk menyimpan konfigurasi jaringan.
 - ❖ Klik "File"
 - ❖ Pilih "Save as"
 - ❖ Pilih direktori
 - ❖ Ketikkan nama file "lab2.nwc"
 - ❖ Klik "save"