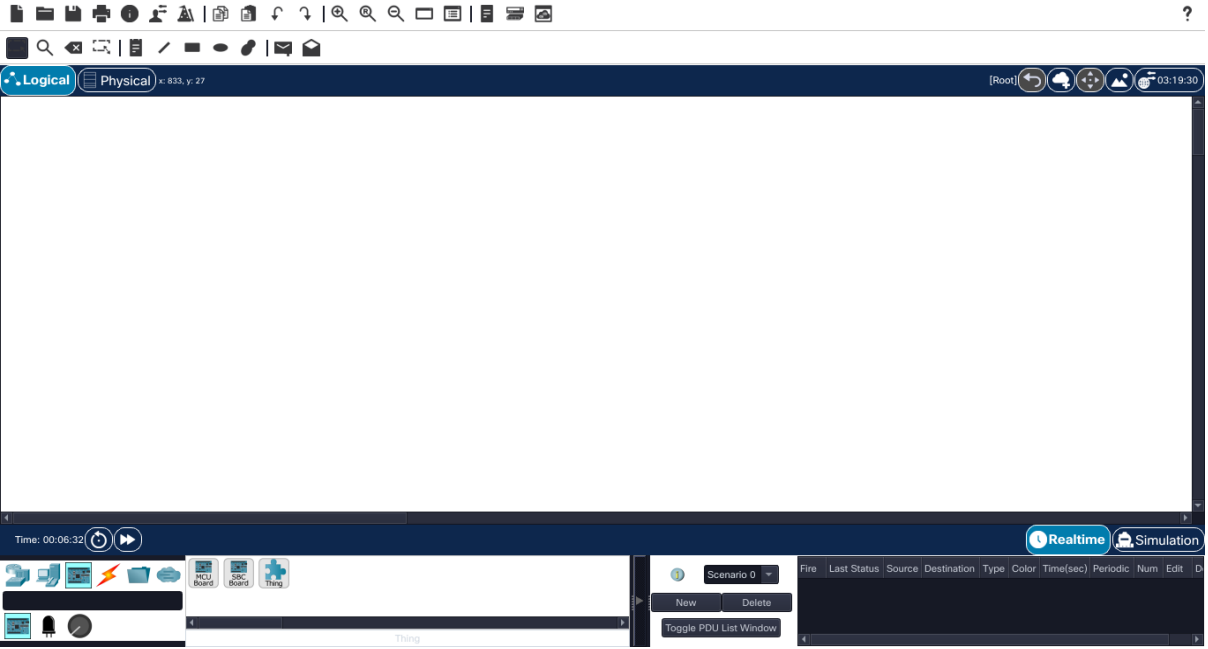
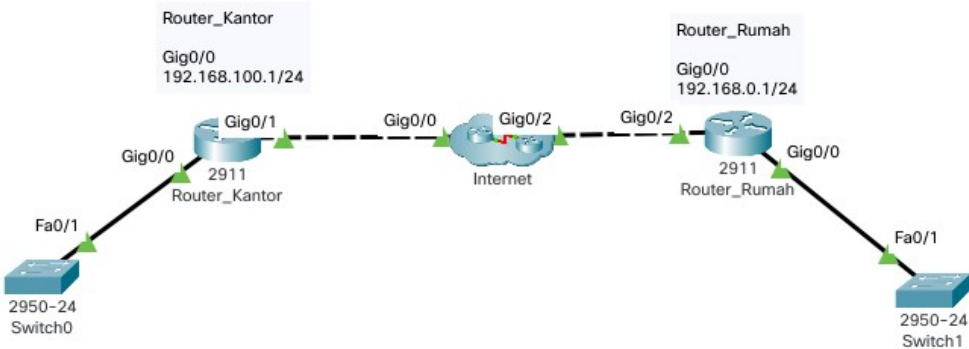
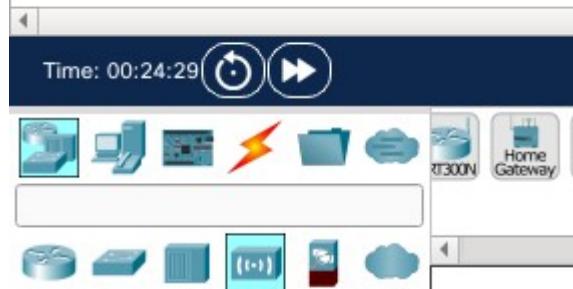


# Praktikum 2 – Internet of Things

No	Langkah-langkah
1	Buka <b>Cisco Packet Tracer</b> . Jika memiliki akun silahkan login. Jika tidak, <b>Packet Tracer</b> hanya akan menyediakan 3 kali opsi penyimpanan.
	 <p>The screenshot shows the Cisco Packet Tracer application window. The top menu bar includes options like File, Edit, View, and Help. Below the menu is a toolbar with various icons for creating and editing network components. The main workspace is currently empty, displaying the 'Logical' tab. The bottom status bar shows the time as 00:06:32 and the simulation mode as 'Realtime'.</p>
2	Buka file <b>Template Prak2.pkt</b> yang akan kita gunakan seterusnya untuk praktikum. Berisikan simulasi konektivitas melalui <b>Internet</b> dari jaringan <b>Kantor</b> ke jaringan <b>Rumah</b> . Pastikan <b>RouterKantor</b> dapat berkomunikasi dengan <b>RouterRumah</b>
	 <p>The diagram illustrates a network topology for connecting two offices (Kantor and Rumah) via the Internet. On the left, 'Router_Kantor' (Gig0/0: 192.168.100.1/24) is connected to 'Switch0' (2950-24) via its Gig0/1 port. On the right, 'Router_Rumah' (Gig0/0: 192.168.0.1/24) is connected to 'Switch1' (2950-24) via its Gig0/1 port. Both routers are connected to a central 'Internet' cloud. The connection from Router_Kantor to the Internet is via Gig0/0, and from the Internet to Router_Rumah is via Gig0/2. The connection from Router_Rumah back to the Internet is via Gig0/0.</p>
3	Tambahkan <b>HomeGateway</b> (menu <b>Wireless</b> ) di jaringan Rumah, dan sambungkan kabel.



- 4 Konfigurasi **Jaringan Wi-Fi**, **IP Address**, dan **Gateway** nya di **HomeGateway** agar perangkat dapat terhubung

**Wireless Settings**

SSID: RouterRumah

2.4 GHz Channel: 6 - 2.437GHz

Coverage Range (meters): 250,00

Authentication:

☐ Disabled ☐ WEP ☐ WPA-PSK ☒ WPA2-PSK ☐ WPA ☐ WPA2

WEP Key:

PSK Pass Phrase: routerrumah

RADIUS Server Settings:

IP Address:

Shared Secret:

Encryption Type: AES

**LAN Settings**

IP Configuration:

IPv4 Address: 192.168.0.2

Subnet Mask: 255.255.255.0

**GLOBAL**

Settings

Algorithm Settings

**INTERFACE**

Internet

LAN

Wireless

**Internet Settings**

IP Configuration:

☐ DHCP ☒ Static

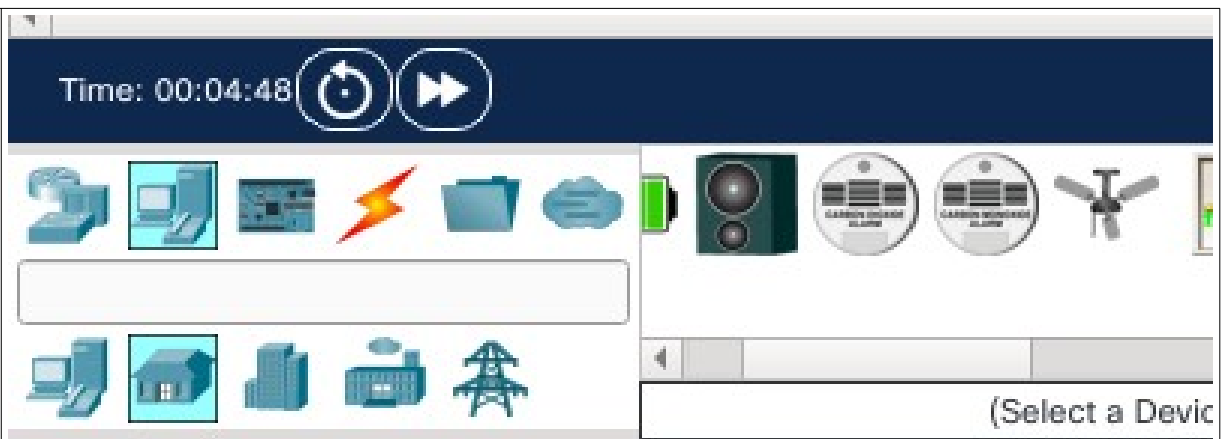
IPv4 Address:

Subnet Mask:

Default Gateway: 192.168.0.1

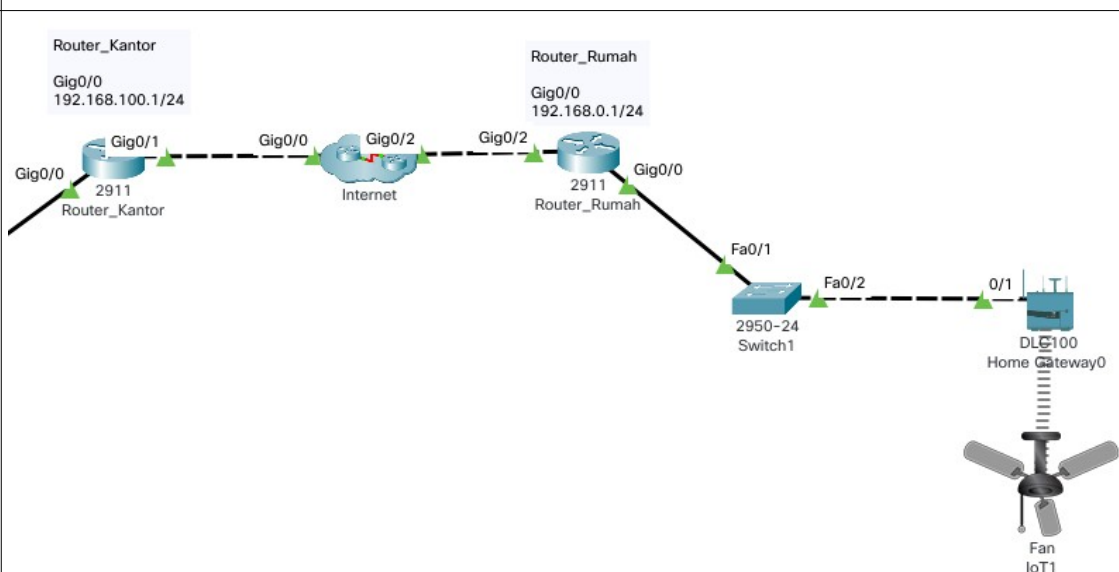
DNS Server:

- 5 Tambahkan **Kipas** ke **Jaringan Rumah** dan sambungkan ke **Wi-Fi**



6 Berikan **IP** beserta **Gateway** nya ke masing-masing perangkat:

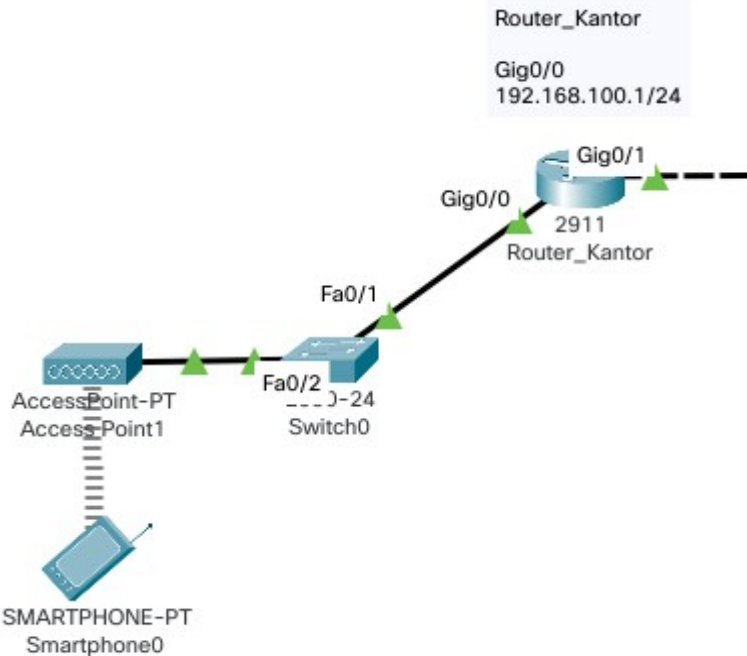
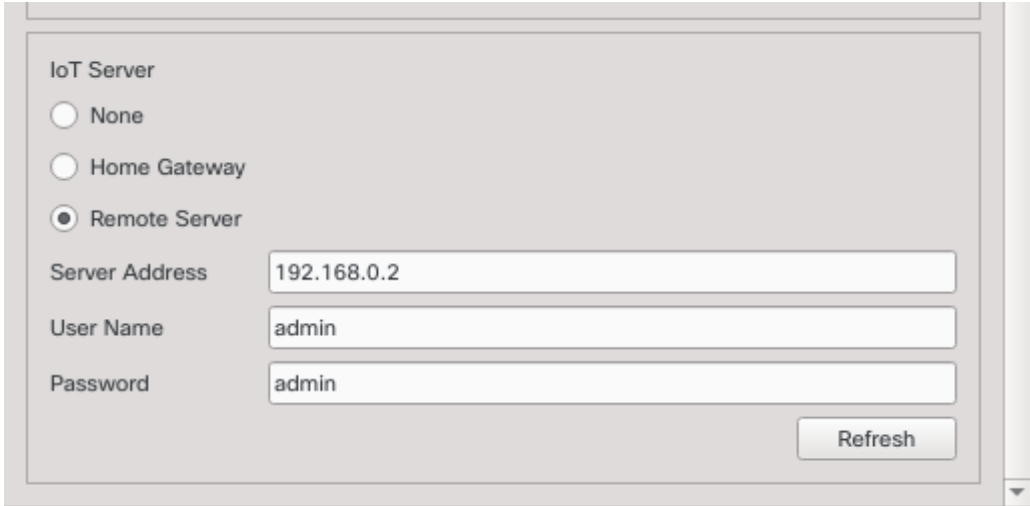
**Kipas: 192.168.0.3/24, GW: 192.168.0.1**

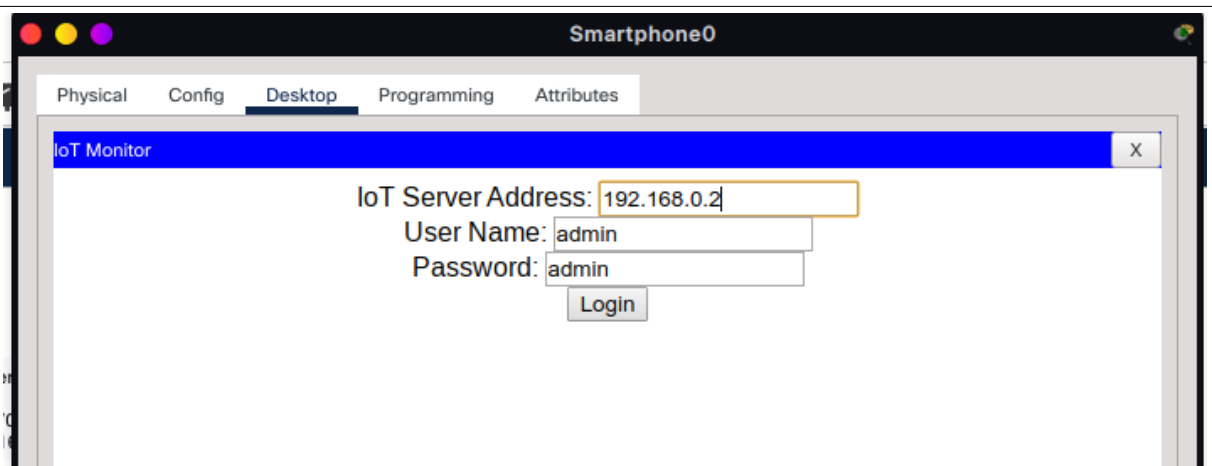


7 Cek **PING** antara **Fan -> RouterRumah**, dan **Fan -> RouterKantor**. Pastikan semua sukses

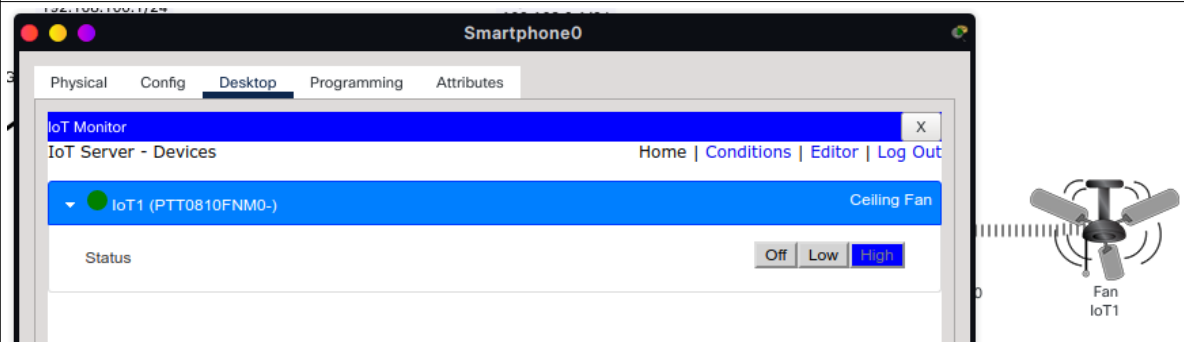
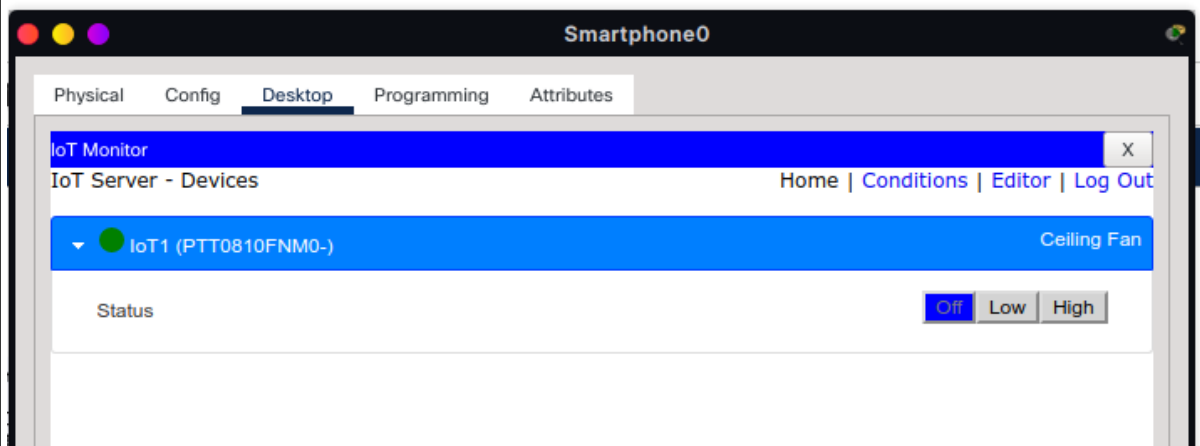
8 Ulang **Langkah 3-4**, namun pasangkan di **Jaringan Kantor** dan **Konfigurasi Wi-Fi** seperti berikut

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

9	<p>Tambahkan perangkat <b>Smartphone</b> di <b>Jaringan Kantor</b> dan hubungkan dengan <b>Wi-Fi Kantor</b>. Konfigurasi <b>IP</b> sebagai berikut: <b>IPAddr: 192.168.100.2/24 GW: 192.168.100.1</b></p>
	
10	<p>Tes <b>PING</b> dari <b>Smartphone -&gt; RouterKantor</b>, <b>Smartphone -&gt; HomeGateway</b> dan <b>Smartphone -&gt; Fan</b>. Jika sukses, kita sudah bisa mengkonfigurasi <b>Remote Control</b>.</p>
11	<p>Buka <b>Kipas</b>, dan di bagian <b>Wireless</b> pilih menu <b>IoT Server</b> ke <b>HomeGateway</b> (Jika Satu Jaringan), atau manual dengan <b>input IP</b> (Jika Jauh)</p>
	
12	<p>Buka <b>Smartphone</b>, pilih <b>Desktop</b>, lalu pilih <b>IoT Monitor</b>, masukkan <b>IP Address</b> dari <b>Home Gateway</b>, lalu masuk</p>



- 13 Jika dilakukan dengan benar, maka **Kipas** akan muncul di monitoring, dan dapat di kontrol dari **Smartphone**.



SELESAI