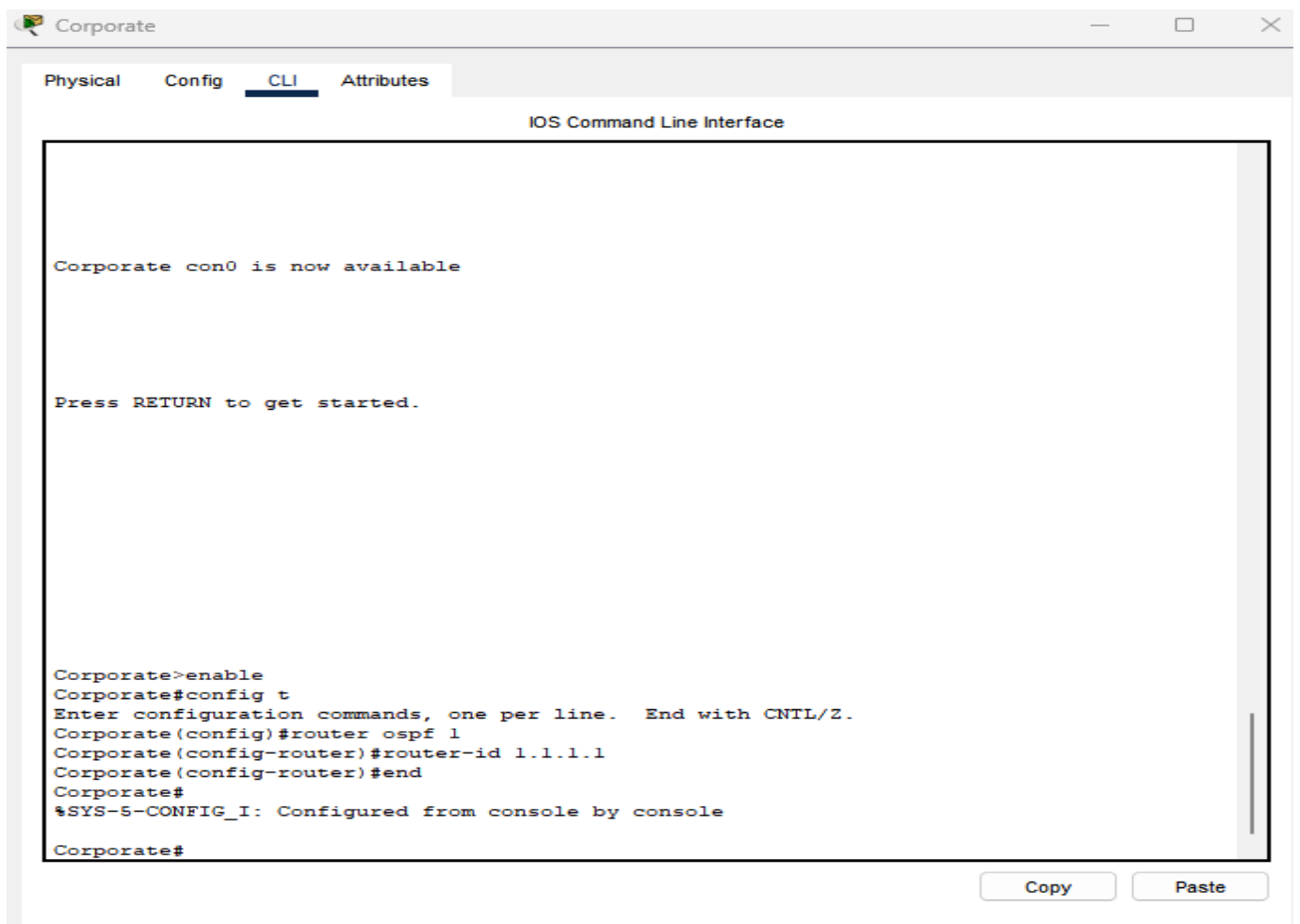# Configuring Router Names

1. Corporate> enable
2. Corporate# configure terminal
3. Corporate(config)# hostname Corporate
4. Corporate(config)# exit

Configuring OSPF routing ID's

1. Router> enable
2. Router# configure terminal
3. Router(config)# router ospf 1
4. Router(config-router)# router-id 1.1.1.1
5. Router(config-router)# end

Corporate — □ ✕

Physical   Config   CLI   Attributes

IOS Command Line Interface

```
Corporate con0 is now available




Press RETURN to get started.








Corporate>enable
Corporate#config t
Enter configuration commands, one per line.  End with CNTL/Z.
Corporate(config)#router ospf 1
Corporate(config-router)#router-id 1.1.1.1
Corporate(config-router)#end
Corporate#
%SYS-5-CONFIG_I: Configured from console by console

Corporate#
```

Copy   Paste

Adding Interfaces

1. Router> enable
2. Router# configure terminal
3. Router(config)# interface FastEthernet0/0
4. Router(config-if)# ip address subnet mask
5. Router(config-if)# description Link to Router2
6. Router(config-if)# no shutdown
7. Router(config-if)# exit
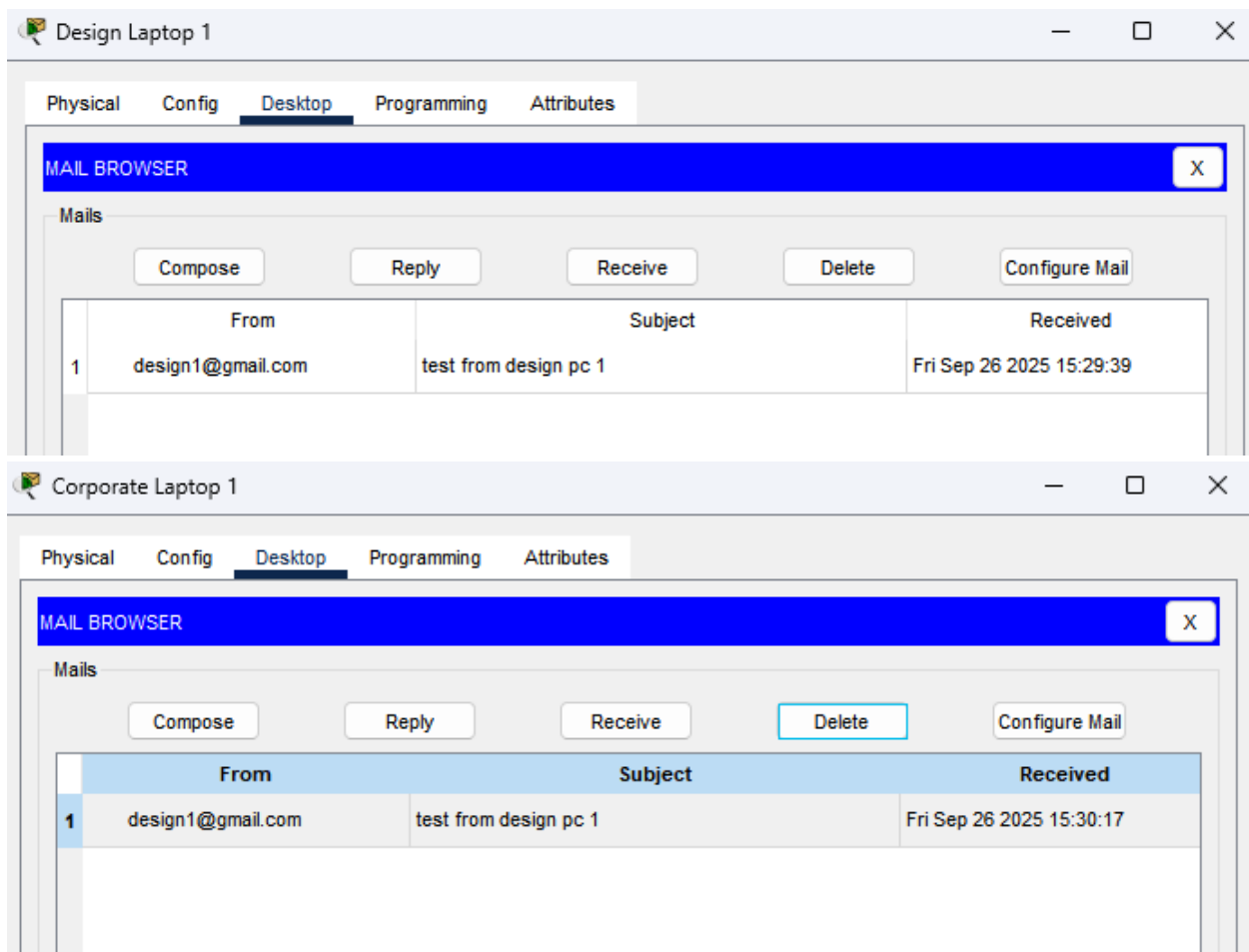8. Router# show ip interface brief (To show which interface is connected to that device)

Routing

1. All routers are configured to OSPF area 1
2. WAN links use /30 subnets and LANs use /24 subnets

Server

1. **DNS Configuration:** My DNS server is configured to convert domain names like *mail.local* and *web.local* into their corresponding IP addresses. This allows users or devices on the network to access servers and services by name instead of having to remember the IP address for example, typing *web.local* instead of 192.168.10.100."

2. **DCHP Configuration:** My DHCP server is configured to automatically assign IP addresses to devices on my network. It uses a DHCP pool that provides IP addresses from **192.168.10.21 to 192.168.10.254**, while reserving the first twenty addresses (192.168.10.1–20) for network devices like routers and servers.
   Each device that joins the network automatically receives an IP address, a default gateway of **192.168.10.1**, and the DNS server address of **192.168.10.100**, which is the same server.

3. **Website Configuration (HTTP/HTTPS Service)**: The server is configured to host internal websites using both HTTP and HTTPS protocols. This allows users in the LAN to access the website by typing http://web.local or https://web.local in their browsers.

Corporate Laptop 1 — □ ✕

Physical	Config	Desktop	Programming	Attributes

Web Browser   X

| < | > | URL | https://web.local/ | | Go | Stop |

Wan tech project

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4. The email service on my corporate server is configured with both SMTP and POP3 enabled. SMTP allows users to send emails, while POP3 allows them to receive emails. so they can exchange messages within the same department or externaly to other departments.

Design Laptop 1 — □ ✕

Physical	Config	Desktop	Programming	Attributes

MAIL BROWSER   X

Mails

Compose	Reply	Receive	Delete	Configure Mail

	From	Subject	Received
1	design1@gmail.com	test from design pc 1	Fri Sep 26 2025 15:29:39

Corporate Laptop 1 — □ ✕

Physical	Config	Desktop	Programming	Attributes

MAIL BROWSER   X

Mails

Compose	Reply	Receive	Delete	Configure Mail

	From	Subject	Received
1	design1@gmail.com	test from design pc 1	Fri Sep 26 2025 15:30:17

1. **Ping Test:** I used the ping command to test connectivity between devices. A successful ping confirms that IP addressing, routing, and interfaces are configured correctly. I also pinged hostnames like *web.local* to verify that DNS resolution was working.

```
C:\>ping 192.168.10.1

Pinging 192.168.10.1 with 32 bytes of data:

Reply from 192.168.10.1: bytes=32 time=1ms TTL=255
Reply from 192.168.10.1: bytes=32 time<1ms TTL=255
Reply from 192.168.10.1: bytes=32 time<1ms TTL=255
Reply from 192.168.10.1: bytes=32 time<1ms TTL=255

Ping statistics for 192.168.10.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 1ms, Average = 0ms
```

Commands:

1. show ip interface brief
2. show ip protocols
3. show ip ospf neighbor
4. show ip route ospf
5. ping [IP address]