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IFT 266 Introduction to Network Information Communication Technology (ICT)

Lab 33

Using the CLI to Create IPV6 Link-Local, GUA's, Subnets, and Auto Configure their PC's

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Choose from the list of commands from the bottom of the page and put them in the right order by typing them in the proper box.



1. Enable ipv6 unicast-routing and link-local addresses on two router serial connections.

Router On t Router (config)# IP V 6 Unicast-routing Router (config)# int SO/1/o Router (config-if)# IP V 6 address FeBO::1 link-local

ipv6 address 2001:DB8:ACAD:A::1/32 ipv6 address FE80::1 local-link enable terminal create unicast interface g0/0 shutdown change state to up ipv6 address 2001:DB8:ACAD:A::1/32 configure terminal interface s0/1/0 enable ipv6 address FE80::1 link-local ipv6 address 2001:DB8:ACAD:B::1/64 begin configure ipv6 address 2001:DB8:ACAD:A::1/64 ipv6 unicast-routing interface fa0/1 no shutdown Router1 en Router> Conf + Router# Router (config)# Router (config)# FE80: 1 link-local address Router (config-if)# Router (config-if)# NO Shut ipv6 address 2001:DB8:ACAD:A::1/32 ipv6 address FE80::1 local-link enable terminal create unicast interface g0/0 shutdown change state to up ipv6 address 2001:DB8:ACAD:A::1/32 configure terminal interface s0/1/0 enable ipv6 address FE80::1 link-local ipv6 address 2001:DB8:ACAD:B::1/64 begin configure

interface fa0/1

ipv6 unicast-routing

no shutdown

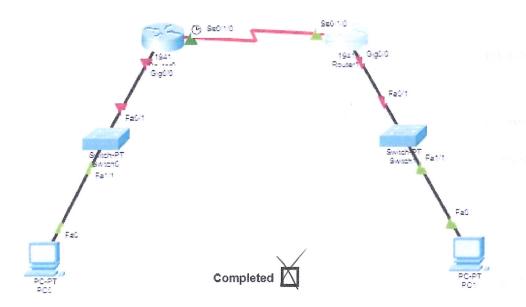
ipv6 address 2001:DB8:ACAD:A::1/64

2. Create the topology in packet tracer and input the commands you selected above.

Your topology should now look like the following image



3. We will now add 2 switches and 2 PCs to our topology.



Router0					
Router> en					
Router# Conf t					
Router (config)# $I_n + g0/0$					
Router (config-if)# IPV6 address fe 80: 1 lin K-local					
Router (config-if)# No Shut					
enable terminal ipv6 address 2001:DB8:ACAD:A::1/32 ipv6 address FE80::1 local-link					
shutdown change state to up interface g0/0 create unicast					
interface s0/1/0 enable configure terminal ipv6 address 2001:DB8:ACAD:A::1/32					
begin configure ipv6 address 2001:DB8:ACAD:B::1/64 ipv6 address FE80::1 link-local					
no shutdown ipv6 unicast-routing interface fa0/1 ipv6 address 2001:DB8:ACAD:A::1/64					
Router1					
Router> En					
Router# Conf t					
Router (config)# 9 o /o					
Router (config-if)# IR v6 address FE80:: link-local					
Router (config-if)# No Shut					

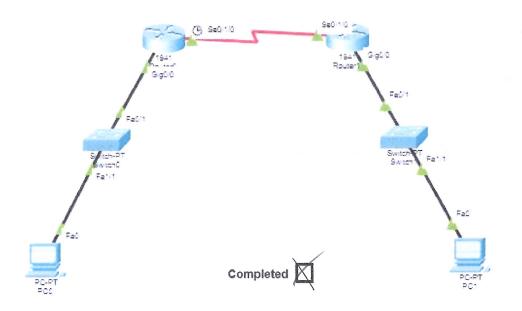
4. Enable ipv6 link-local addresses on two router gigabit connections.

ipv6 address 2001:DB8:ACAD:A::1/32 enable terminal ipv6 address FE80::1 local-link create unicast shutdown interface g0/0 change state to up configure terminal ipv6 address 2001:DB8:ACAD:A::1/32 interface s0/1/0 enable ipv6 address FE80::1 link-local begin configure ipv6 address 2001:DB8:ACAD:B::1/64 ipv6 address 2001:DB8:ACAD:A::1/64 no shutdown ipv6 unicast-routing interface fa0/1

5. Input the commands in packet tracer.



6. Your topology should now look like the following image.



Router0					
Router> en					
Router# Conf +					
Router (config)# $Int g0/0$					
Router (config-if)# IPV6 address 2001: db8:acad:a::1/64					
Router (config-if)# No shut					
enable terminal ipv6 address 2001:DB8:ACAD:A::1/32 ipv6 address FE80::1 local-link					
shutdown change state to up interface g0/0 create unicast					
interface s0/1/0 enable configure terminal ipv6 address 2001:DB8:ACAD:A::1/32					
begin configure ipv6 address 2001:DB8:ACAD:B::1/64 ipv6 address FE80::1 link-local					
no shutdown ipv6 unicast-routing interface fa0/1 ipv6 address 2001:DB8:ACAD:A::1/64					
Router1					
Router> en					
Router# Conf t					
Router (config)# Int g 0/0					
Router (config-if)# IPVb address 2001:db8:acad;b::1/64					
Router (config-if)# No shuf					

7. Now we will configure the routers with Global Unicast Addresses (GUA)s.

enable terminal	ipv6 address 2001:	:DB8:ACAD:A::1/32	ipv6 address FE80::1 local-link
shutdown	change state to up	o interface g0/0	create unicast
interface s0/1/0	enable	configure terminal	ipv6 address 2001:DB8:ACAD:A::1/32
begin configure	ipv6 address 20	001:DB8:ACAD:B::1/64	ipv6 address FE80::1 link-local
no shutdown	ipv6 unicast-routing	interface fa0/1	ipv6 address 2001:DB8:ACAD:A::1/64

8. Input the commands in packet tracer.



9. You should now be able to Auto Config the PC's.

The fields IPv6 Address, Link Local Address, and IPv6 Gateway should automatically populate.

Do this autoconfiguration for PC1, then take a screen shot and insert below.

