**IPv6 Configuration**

When configuring an IPv6 address, we first need to **enable** the use of IPv6 on the respective device.

Router(config)#ipv6 unicast-routing

CLI

Next, we can **assign an address** to a specific interface, similar to how we assigned addresses for IPv4.

Router(config)#interface g0/0/0  
Router(config-if)#ipv6 address 2001:DB8:ABCD:1::1/64  
Router(config-if)#no shutdown

CLI

When using IPv6, each interface has **two addresses**, one IPv6 address which is **unique globally**, and one IPv6 address which is **unique locally**. The latter is called the **link-local address**. Link-local addresses always start with the format . One possible use for them is as a **default gateway**.

When we assign an IPv6 address to a device, a link-local address is **automatically generated**. However, we can **override** that address.

Router(config-if)#ipv6 address FE80::1 link-local

CLI

Notice that, unlike the normal IPv6 address, the **CIDR notation** has not been used here.

The above configuration was for a **router**. For **PCs**, we can simply directly assign the address in the **IP Configuration Panel**. Note that we can use either the **interface address** assigned to the router or the **link-local address** as the **default gateway**.