Demystifying Networking
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Lecture – 29
Introduction to the Addressing Topology

So, now you came to know about IP addresses. Now let us look at Cisco packet tracer and try to see how we can assign these IP addresses and how the different IP addresses play a different role for communication to happen over the network.

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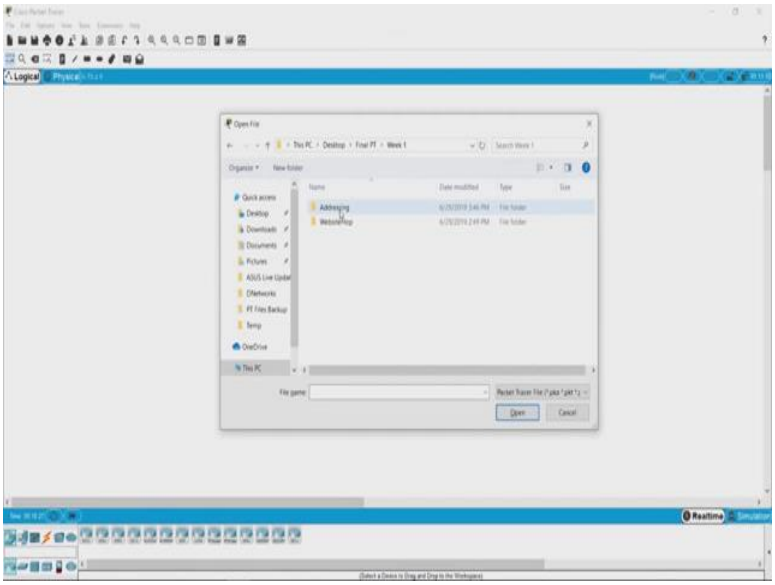

So, here what we have is a file called ‘Addressing’.

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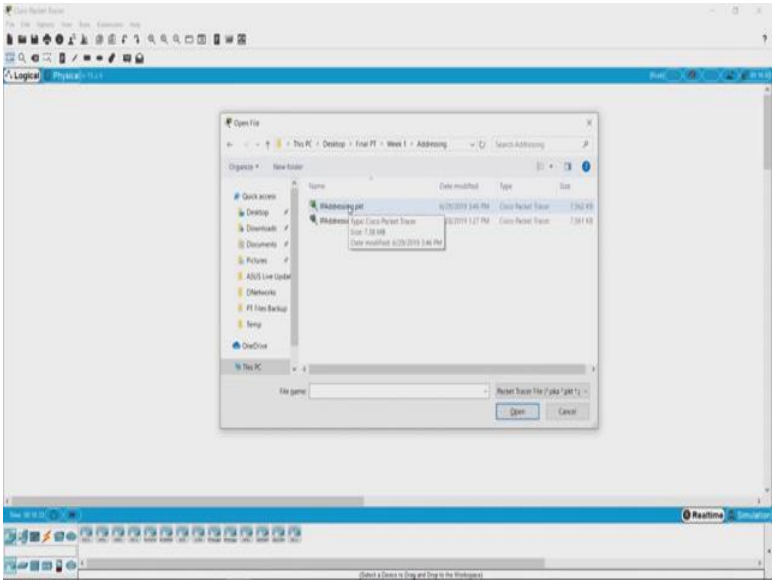

If you open this, you will find your packet tracer topology ‘IPAddressing.pkt’.

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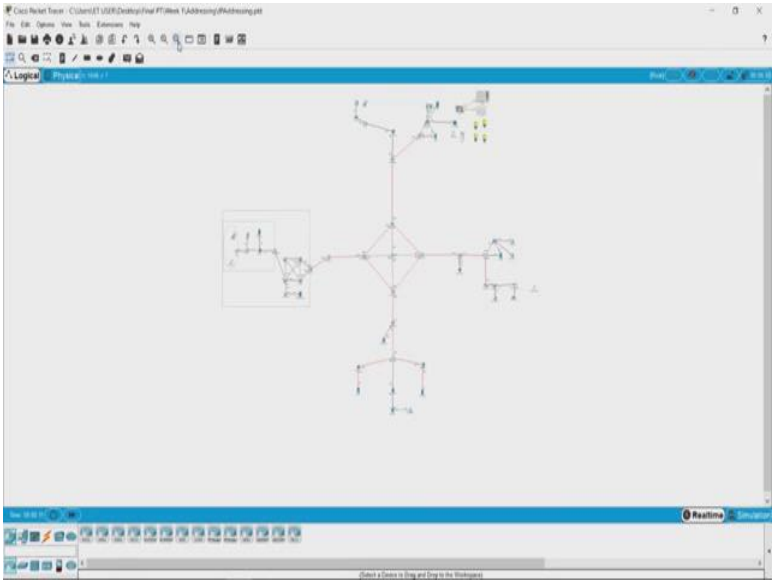

Let us open this and see what do we have here. So, what you can see here, it opens at this network, but if you zoom out, you will see a huge network that has been displayed in this particular file.

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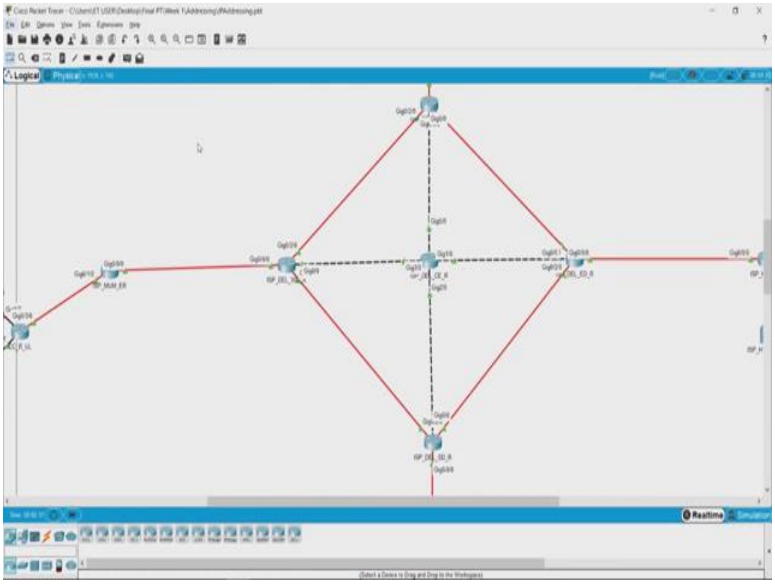

Now, let us look at the network very closely. So, what you see here is a set of 4 routers here.

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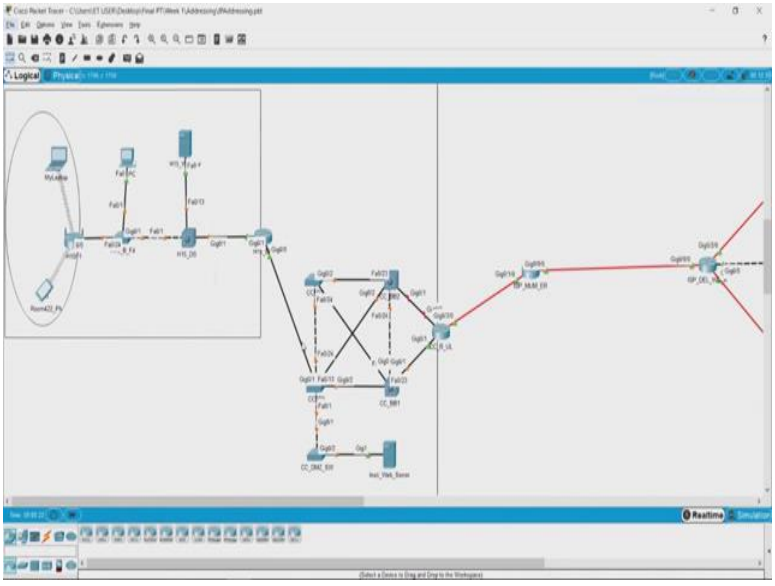

And if you scroll towards your left, you see the old topology that we were using as a campus network, but instead of the cloud here, the internet which we called it, we have a set of entire network. So, what is internet? Internet is a basically, a connection of lot of networks.

Now, just to give an idea what this entire topology is.

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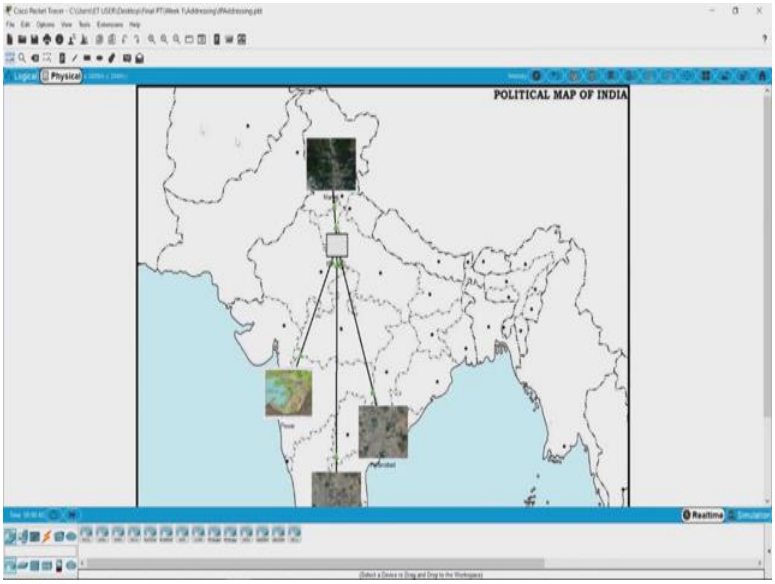

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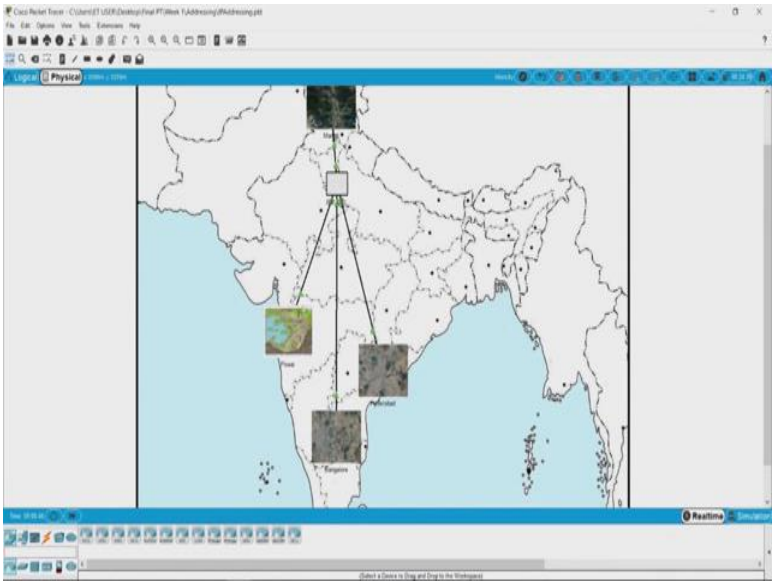

So it is a hypothetical case, where we have the campus in Mumbai, we have another company in Bangalore, one in Hyderabad and a hotel and a company in Manali and they all are connected via a internet service provider whose backbone runs at Delhi. Now, let us look at the logical view of the topology. Now, this is what is the network of the campus.

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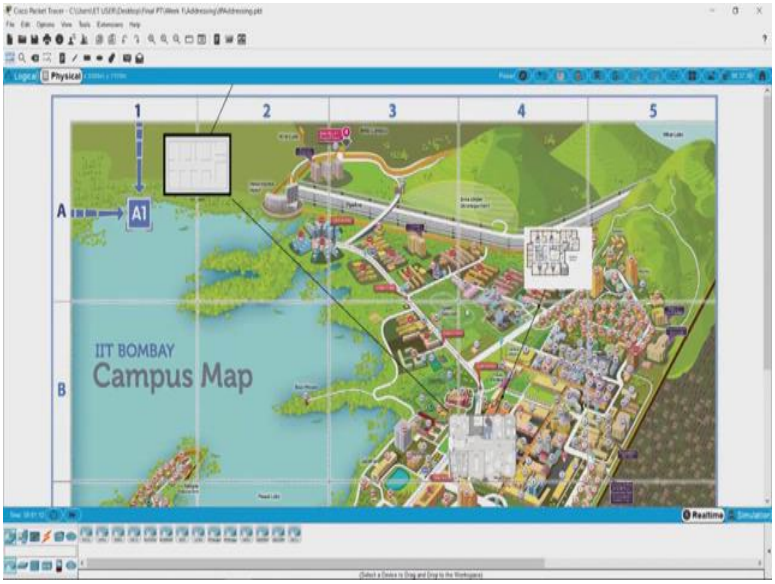

Now, as we have seen earlier, on campus we have the computer centre and the hostel.

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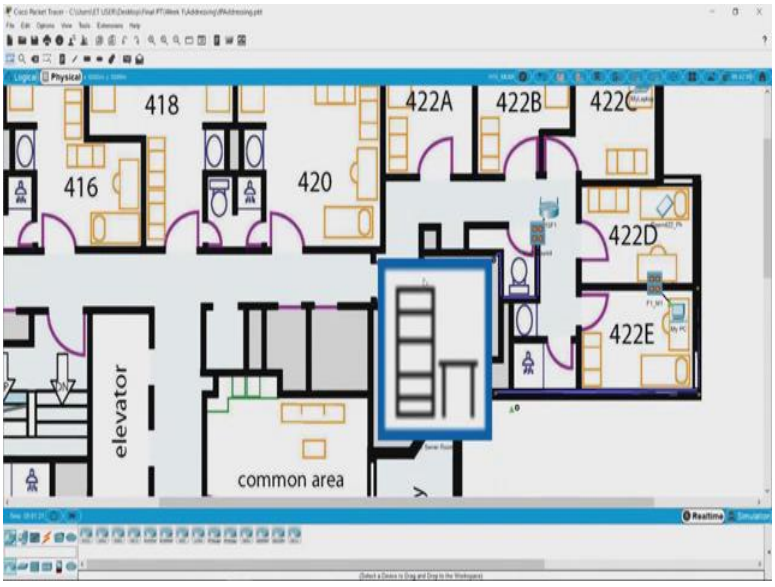

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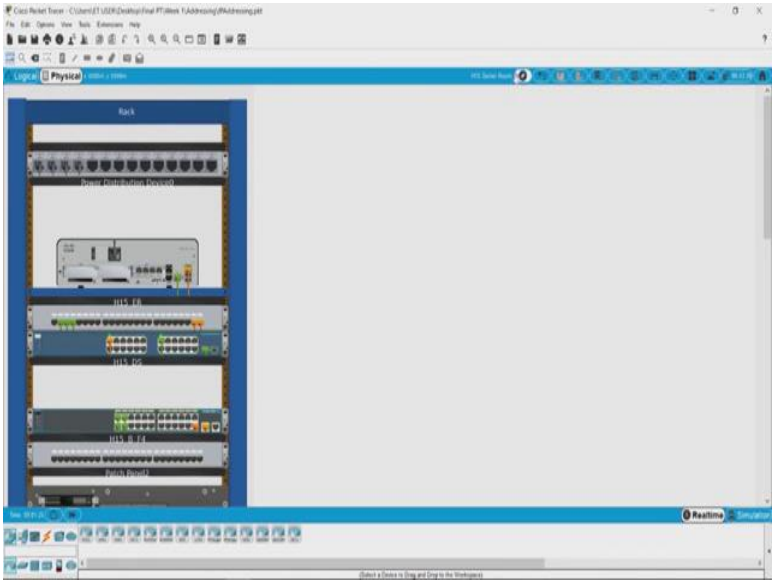

So, if you look inside the hostel, you have this floor area where, you have a server room which has your networking devices and all of them are connected to a Wi-Fi router. So, this is a Wi-Fi router which is there in the gallery to which a laptop or a phone could connect. Similarly, there are wall internet ports to which PCs can connect using a wire. So now, let us look at how can IP addresses be assigned here.