

Faculty of Engineering



**UNIVERSIDAD DISTRITAL
FRANCISCO JOSÉ DE CALDAS**
Acreditación Institucional de Alta Calidad

Computer Networking

Workshop No. 1 — Packet Tracer Basics

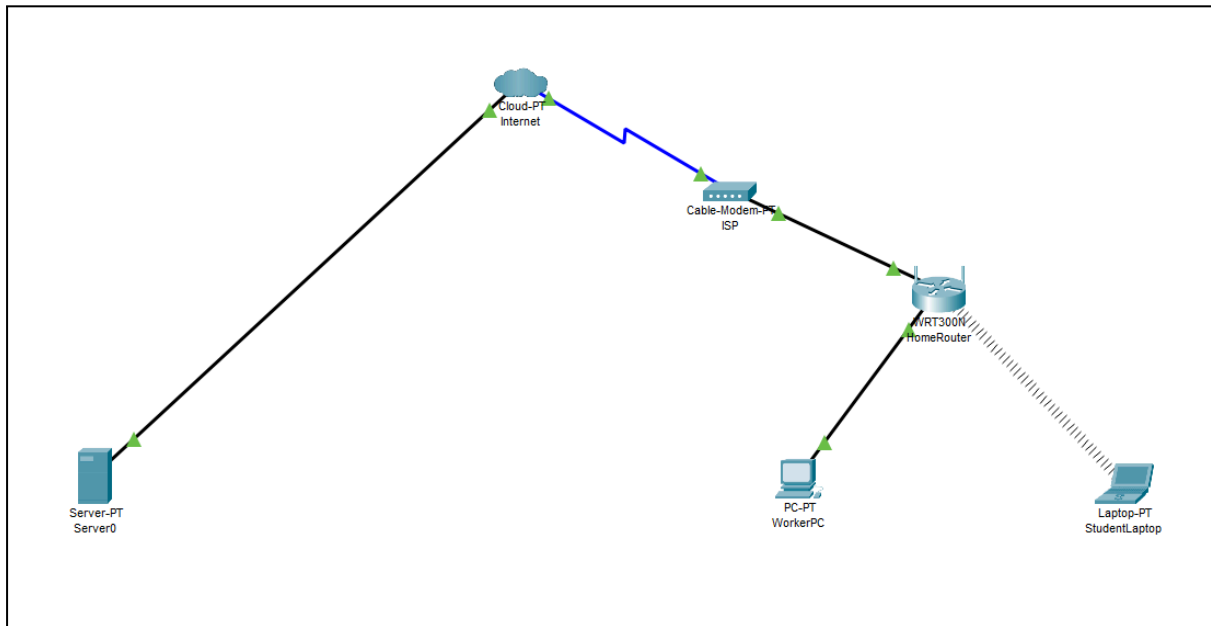
Systems Engineering

Edison Mauricio Riano Alvarado - 20172020113

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Activity development

Full topology

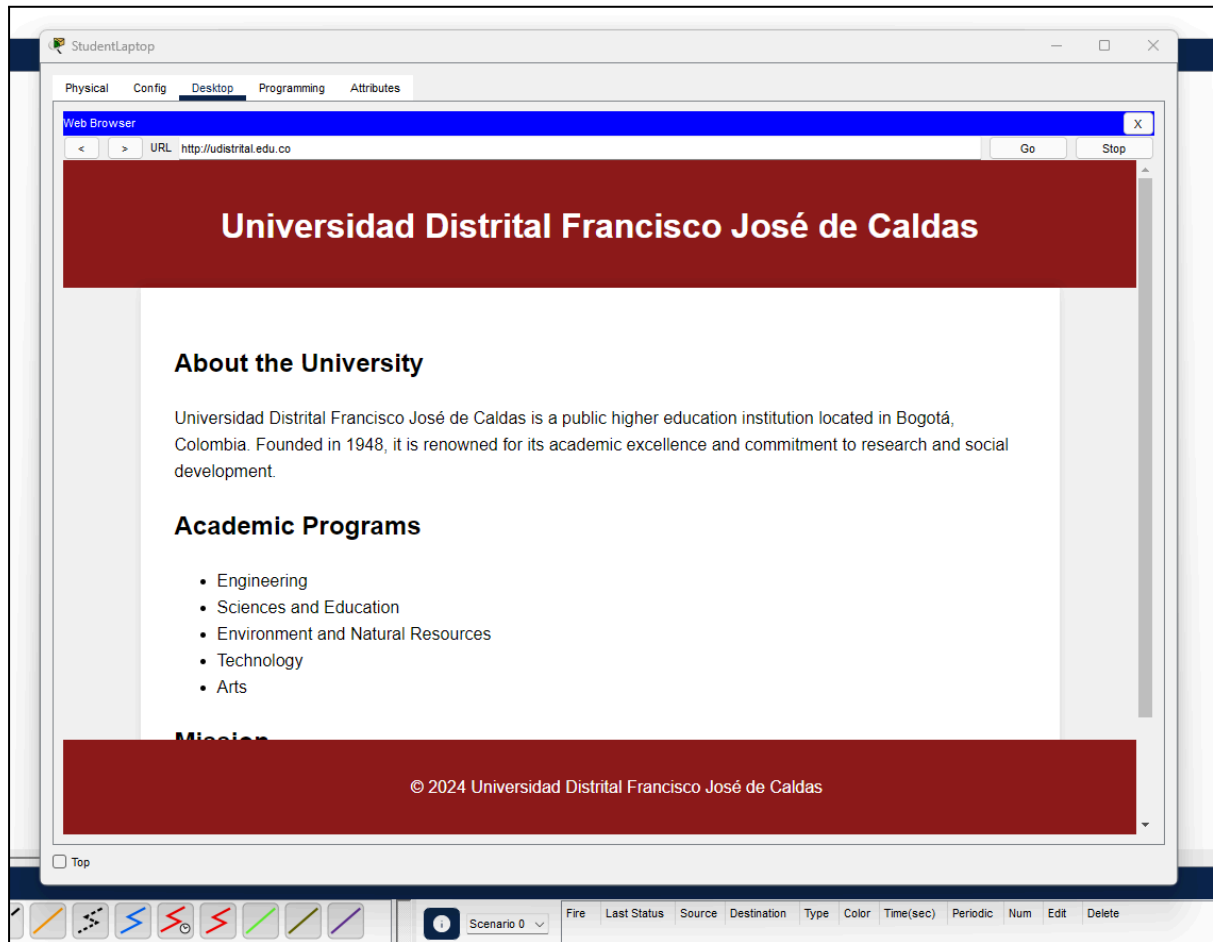


Communication between the server and the cloud is over FastEthernet, so a **copper straight-through** cable is used.

In Packet Tracer, the Cloud PT device simulates the connection to the Internet or the Internet Service Provider (ISP) network. Coaxial cable is used to transmit data from the ISP's network to the customer's modem because it can carry *high-frequency signals* with less loss than other types of cable in terms of **price-performance ratio** (fiber is better, but much more expensive), making coaxial cable ideal for long-distance, high-bandwidth transmissions.

It was necessary to install a 2.4 GHz wireless card in the laptop and configure the same network in the home router and laptop to get a connection.

Communication Test



After completing the tests and checking all the configurations in detail, we obtain the final result where the StudentLaptop device can communicate with the server to obtain the page of the *Universidad Distrital*. This confirms that the Dynamic Host Configuration Protocol (**DHCP**) and Domain Name System (**DNS**) are functioning correctly.