

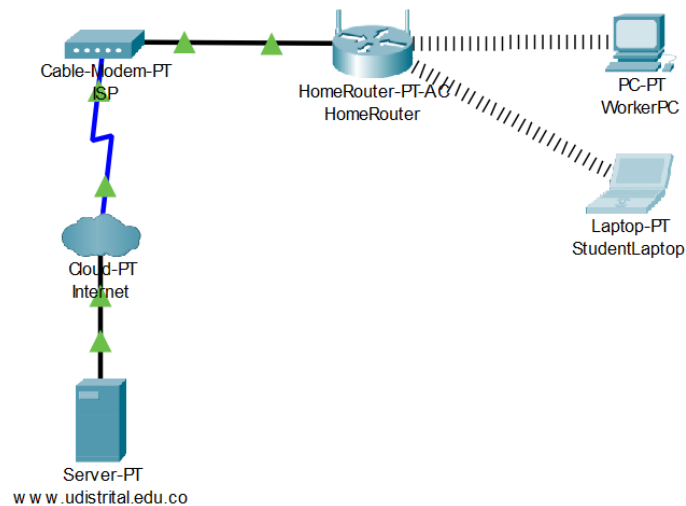
DISTRITAL FRANCISCO JOSE DE CALDAS COLLEGE

Workshop No. 1 – Computer Networking

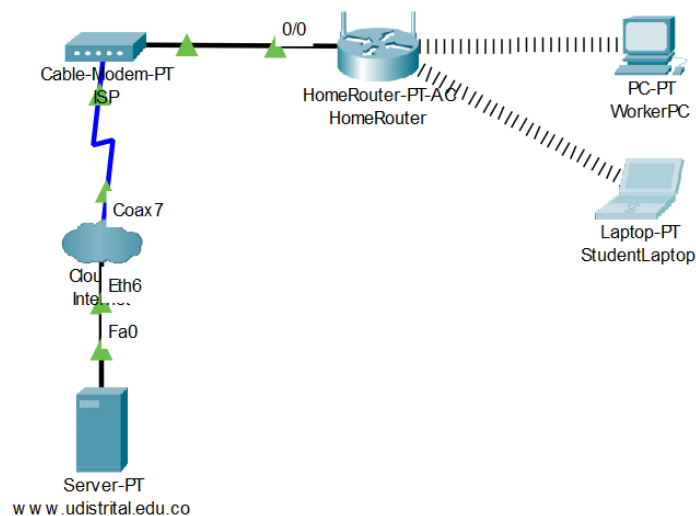
First packet tracer exercise

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Design:



Design (with ports):



Technical decisions

This design is composed of a server (www.udistrital.edu.co), connected to a Cloud-PT (Internet) by a copper straight through cable, in the “Fast Ethernet 0” port of the server and the “Ethernet 6” port

of the cloud, this cable was chosen by its compatibility because both ports are RJ45 but twisted pair won't work because the way they share information; next we have a "Cable Modem PT" that works as the ISP (Internet Service Provider), connects the "Cloud" with a coaxial cable, because it is cheap and works for the coaxial port on the ISP (Coaxial 7 in Cloud); thanks to the ISP we can connect houses to internet so we connected a "Wireless Home Router" with a copper straight through cable because the RJ45 port on both devices supports it and it's a cheap and resistant way to connect them (Fast Ethernet port 0 on ISP and Internet port on the Home Router); finally we can connect end devices such as a PC-PT and a Laptop-PT, both wireless on a 2.5 GHz network but first it was needed to change a module on both devices, they had a RJ45 port and we needed to connect to a wireless, so two "WPC300N" (supports wireless 2.5 GHz) were used. Everything else in the network was the software configuration.

Test results

This test was run in the "Student Laptop", we added a HTTP service on the server with the following HTML file (Index.html):

```
<!DOCTYPE html>
<html lang="es">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Universidad de Desarrollo (UD)</title>
  <style>
    body {
      font-family: Arial, sans-serif;
      margin: 0;
      padding: 0;
      background-color: #f4f4f4;
    }
    header {
      background-color: #660005;
      color: white;
      padding: 20px 0;
      text-align: center;
    }
    header h1 {
```

```
        margin: 0;
        font-size: 2.5rem;
    }
    nav {
        display: flex;
        justify-content: center;
        background-color: #660005;
        padding: 10px;
    }
    nav a {
        color: white;
        text-decoration: none;
        margin: 0 15px;
        font-size: 1.1rem;
    }
    nav a:hover {
        text-decoration: underline;
    }
    section {
        padding: 20px;
        text-align: center;
    }
    section h2 {
        color: #66001f;
        font-size: 2rem;
    }
    section p {
        color: #333;
        font-size: 1.1rem;
        margin: 10px 0;
    }
    footer {
        background-color: #660005;
        color: white;
        text-align: center;
        padding: 10px 0;
        position: fixed;
        bottom: 0;
        width: 100%;
    }
</style>
</head>
<body>

<header>
```

```

    <h1>Universidad Distrital Francisco Jose de Caldas</h1>
  </header>

  <nav>
    <a href="#">Inicio</a>
    <a href="#">Nuestra universidad</a>
    <a href="#">Programas</a>
    <a href="#">Admisiones</a>
    <a href="#">Investigación</a>
    <a href="#">Vida universitaria</a>
  </nav>

  <section>
    <h2>Bienvenidos a la UD</h2>
    <p>La Universidad Distrital Francisco José de Caldas se reconoce a
    sí misma como la institución de educación superior del Distrito Capital de
    Bogotá y de la Región Central de la República de Colombia, por consiguiente
    su visión de futuro está estrechamente ligada a los procesos de su entorno
    social. El proyecto educativo institucional encuentra sentido en el
    fortalecimiento estratégico de sus potencialidades académicas y en las
    posibilidades que ellas ofrecen al desarrollo de la región.

    La Universidad Distrital Francisco José de Caldas deberá hacerse
    más competitiva ante pares del mundo académico y universitario. Por ello,
    con una visión estratégica ha decidido canalizar los esfuerzos y recursos en
    torno a cinco áreas académicas prioritarias: lo ambiental, la comunicación,
    la informatización, la educación y la producción.</p>
    <p>Descubre nuestras carreras, programas y oportunidades para ser
    parte de la UD.</p>
    <p>Pero no esperes nada de Condor.</p>
  </section>

  <footer>
    <p>2024 UD. Todos los derechos reservados.</p>
  </footer>
</body>
</html>

```

It was designed to be lightweight, then typing the URL “www.udistrital.edu.co” on the internet browser makes this output:



Bibliography

Sierra, C. A. (7 de Septiembre de 2024). *GitHub*. Obtained from Public Repository of Universidad Distrital Francisco José de Caldas: https://github.com/EngAndres/ud-public/blob/main/courses/computer-networking/workshops/Workshop_1.pdf