# Lab 2: Introduction to Packet Tracer

## Background

Throughout the course you will be using a standard lab setup created from actual PCs, servers, routers, and switches to learn networking concepts. This method provides the widest range of features and the most realistic experience. Since equipment and time are limited, this experience can be supplemented by a simulated environment. The simulator that is used in this course is Cisco’s **Packet Tracer**.

## Learning Objectives

* Explore Packet Tracer Real-time mode
* Explore the Logical Workspace
* Explore Packet Tracer operation
* Connect devices
* Examine a device configuration

## Topology Diagram

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Figure 1

## Addressing Table

| **Device** | **Interface** | **IP Address** | **Subnet Mask** | |
| --- | --- | --- | --- | --- |
| Laser Printer | NIC | **192.168.1.1** | | **255.255.255.0** |
| PC 1 | NIC | 192.168.1.2 | 255.255.255.0 | |
| PC 2 | NIC | 192.168.1.3 | 255.255.255.0 | |
| PC3 | NIC | 192.168.1.4 | 255.255.255.0 | |
| Web Server | NIC | 192.168.1.20 | 255.255.255.0 | |
| DNS Server | NIC | 192.168.1.30 | 255.255.255.0 | |
| File Server | NIC | 192.168.1.40 | 255.255.255.0 | |

Task 1: Install then launch Packet Tracer and build the network topology shown in Figure 1.

The application is located in the folder

X:\Lab\Fergus McLysaght\Network Fundamentals\Applications

Run the .exe file and install the application on you PC.

Task 2: Configure the devices shown in Figure 1 above with the correct IP addresses and ensure that you can ping the server from each PC.

Task 3: Enter the IP address of the DNS server on each PC. Ensure that the server has the DNS service running.

On the Web Server add an entry for *myhomepage.com* with IP address 192.168.1.20 – change the existing web page html code to a more personalized version. You should now be able to browse to the default page on the server from any of the PC.

Task 4: Switch Packet Tracer to ‘Simulation’ mode and carefully trace the route that DNS and HTTP data packets take through the network when you request you homepage from the Web server. Look inside the packets and investigate what the data content is in these packets.

Save you final packet tracer file as Lab 2 Intro to Packet Tracer.