ITCO251
Unit 2 Lab

Introduction

LabSim Network Pro is used to provide a simulated, hands-on laboratory for the purposes of learning about important networking concepts. In an online environment it is impossible for students to work directly with a network in administrative scenarios. Therefore, LabSim is the tool that supports students in their pursuit to understand difficult concepts in an online environment.

Use of LabSim Network Pro requires a one-time registration process. You should have received an activation code from the bookstore (Words of Wisdom). Notify the bookstore immediately if you have not yet received your activation code. Contact them at aiuonlinebooks@wordsofwisdombooks.com.

Instructions for accessing LabSim can be found in the Course Materials section. You can also contact your instructor with any questions. You will have access to Network Pro for 36 months (3 years) from the date of registration.

Note that LabSim Network Pro is aligned with CompTIA's Network+ certification. Completing this lab will not qualify you to complete the exam. One must complete several courses in order to cover all the concepts included in the certification exam. Further, completing the coursework does not conclude with automatic certification. Those students who wish to pursue certification may do so outside the classroom. For those students that qualify, they may contact the Registrar's office for receipt of a discounted certification voucher honored by CompTIA.

Hardware Requirements: Refer here to verify that you meet the necessary Hardware Requirements. Note that you will need speakers.

You may complete the tasks in numerous iterations. You do not need to complete all the lab tasks in one sitting.

Lab Description
Upon completion, you will:

- connect different types of cabling;
- connect to a DSL network;
- identify and select network devices;
- select and install network adapters;
- describe types of network devices;
- describe WAN concepts;
- configure WAN connections.

Lab Tasks

Each Module contains numerous Sections. The last section in each Module is a Practice Exam. The Practice Exam is **not** required. Taking the Practice Exam is **optional**. The results of the Practice Exam do **not** impact your course grade one way or the other.

All Module Sections (excluding the last Section – Practice Exam) are required unless otherwise designated.

Module 2.0 Cables and Connectors

Section 2.1 Twisted Pair (Review video and complete a lab: Sections 2.1.1, 2.1.3)

Section 2.2 Coaxial (Review video and complete a lab: Sections 2.2.1, 2.2.3)

Section 2.3 Fiber Optic (Review video and complete labs: Sections 2.3.1, 2.3.3)

Section 2.4 Wiring Implementation (Review videos, demo, and complete labs: Sections 2.4.1, 2.4.3, 2.4.4, 2.4.6, 2.4.7)

Module 3.0 Networking Devices

Section 3.1 Network Adapters (Review video and complete labs: Sections 3.1.1, 3.1.3, 3.1.4)

Section 3.2 Network Devices (Review video and complete labs: Sections 3.2.1, 3.2.3, 3.2.4)

Section 3.3 Internetwork Devices (Review video and complete lab: Sections 3.3.1, 3.3.3)

Module 11.0 Wide Area Networks (WANs)

Section 11.1 WAN Concepts (Review videos only: Sections 11.1.1, 11.1.2, 11.1.3)

Section 11.2 WAN Connections (Review video, demo and complete lab: Sections 11.2.1, 11.2.2, 11.2.4)

Section 11.3 Internet Connectivity (Review videos and complete lab: Sections 11.3.1, 11.3.2, 11.3.4)

Section 11.4 Remote Access (Review video and demos: Sections 11.4.1, 11.4.3, 11.4.4)

The above Sections include a number of hands-on activities. Be sure to complete the following:

2.1.3 Connect to an Ethernet Network

2.2.3 Connect a Cable Modem

2.3.3 Connect Fiber Optic Cables

2.4.6 Connect Patch Panel Cables 1

2.4.7 Connect Patch Panel Cables 2

3.1.3 Select and install a network adapter

3.1.4 Connect a Media Converter

3.2.3 Install a Hub

3.2.4 Select a Networking Device

3.3.3 Select a Router

11.2.4 Configure a PPP WAN Link

11.3.4 Connect to a DSL Network