CCNA Exploration: Network Fundamentals

During the Cisco Networking Academy® course, administered by the undersigned instructor, the student was able to proficiently:

- Explain how communication works in data networks and the Internet

- Recognize the devices and services that are used to support communications across an Internetwork

- Explain the role of protocols in data networks

- Describe the importance of addressing and naming schemes at various layers of data networks

- Describe the protocols and services provided by the application layer in the OSI model and describe how this layer operates in sample networks

- Analyze the operations and features of the transport layer protocols and services

- Analyze the operations and features of the network layer protocols and services and explain the fundamental concepts of routing

- Design, calculate, and apply subnet masks

- Describe the operation of protocols at the OSI data link layer

- Explain the role of physical layer protocols and services

- Build a simple Ethernet network using routers and switches

- Use Cisco® CLI commands to perform basic router and switch configuration and verification

Isaac Colls
Student

Colegio Universitario Fermin Toro
Academy Name

Venezuela
Location

Ruben Armando Riveros Mannett
Instructor

17-sep-2014
Date

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Instructor Signature

Cisco Systems, Inc.
170 West Tasman Drive
San Jose, CA 95134-1706

Direct: 408 526 4000
FAX: 408 526 4100
www.cisco.com

17-sep-2014

Dear Isaac Colls

Congratulations on completing the Cisco® **CCNA Exploration: Network Fundamentals** course as part of the Cisco Networking Academy® program. This hands-on, lab-oriented course has prepared you for exciting career opportunities in the technology industry.

By completing this course you have earned a Certificate of Completion for CCNA Exploration: Network Fundamentals and acquired competencies that include the following:

- Explain how communication works in data networks and the Internet
- Recognize the devices and services that are used to support communications across an Internetwork
- Explain the role of protocols in data networks
- Describe the importance of addressing and naming schemes at various layers of data networks
- Describe the protocols and services provided by the application layer in the OSI model and describe how this layer operates in sample networks
- Analyze the operations and features of the transport layer protocols and services
- Analyze the operations and features of the network layer protocols and services and explain the fundamental concepts of routing
- Design, calculate, and apply subnet masks
- Describe the operation of protocols at the OSI data link layer
- Explain the role of physical layer protocols and services
- Build a simple Ethernet network using routers and switches
- Use Cisco CLI commands to perform basic router and switch configuration and verification

Technological literacy is more important today than ever before, and Cisco is proud to provide you with the knowledge and skills necessary to build and maintain computers.

Please accept my best wishes for your continued success.
Sincerely,

John T. Chambers
Chairman and Chief Executive Officer