**Building a Secure Network with Cisco Packet Tracer**

**Objectives for this exercise:**

1. Interpret network requirements and configure them properly.
2. Design and build a network topology imitating physical device location.
3. Configure network Quality of Service (QoS)
4. Implement network security
5. Adhere to network design best practices

**Network Device Requirements**

1. Gaming Desktop
2. Work Laptop
3. Wireless Printer
4. Alexa Light Device
5. 2 Smartphones
6. 2 Tablets
7. IP Camera
8. File Server (accessible from the internet)

**Key Considerations When Configuring**

1. Device connectivity (wired v. wireless).
2. Network segmentation for security by creating a guest network.
3. QoS for prioritizing traffic for selected devices (e.g Gaming desktop for performance)
   1. Must access router’s QoS settings and assign high priority to gaming desktop and work laptop based on IPs.
   2. Standard/Medium priority assigned to other devices.
   3. A screenshot of a computer

      AI-generated content may be incorrect.
4. Remote access to the file server via SSH

Next, we will be enhancing network security by:

1. Changing default admin credentials
2. Enable Firewall

A screenshot of a computer

AI-generated content may be incorrect.

1. Network Segmentation
2. Regular Firmware Updates

Testing and Validating Network

1. Connectivity Tests
2. File Server Access
3. Performance Monitoring

Documenting and Saving Configuration

1. Any assumptions and labels included at this point.