LAB7: Applying Encryption and Hashing Algorithms for Secure Communications

Section 2: Applied Learning

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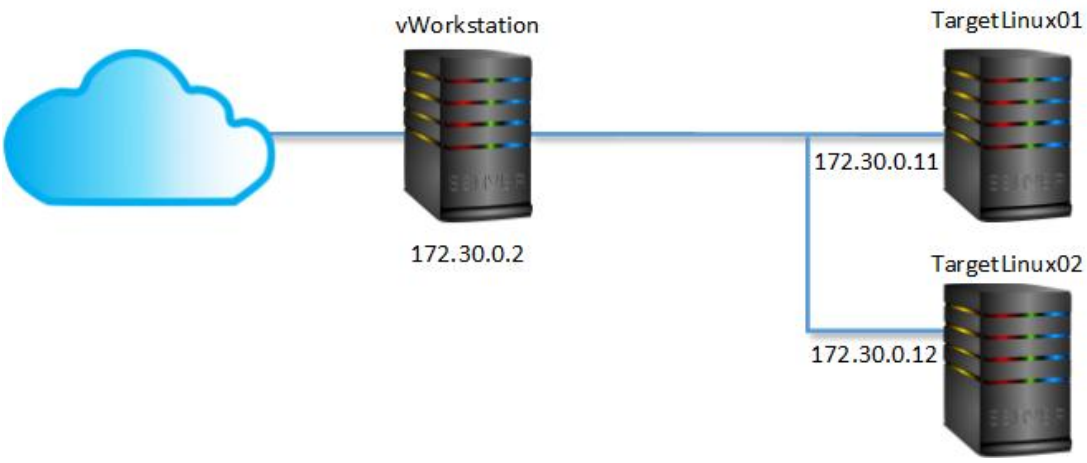
Topology

This lab contains the following virtual devices. Please refer to the network topology diagram below.

- vWorkstation (Windows Server 2016)
- TargetLinux01 (Debian Linux)
- TargetLinux02 (Debian Linux)



Tools and Software

The following software and/or utilities are required to complete this lab. Students are encouraged to explore the Internet to learn more about the products and tools used in this lab.

- GNU Privacy Guard (GnuPG or GPG)
- KeyTransfer
- WinSCP
- vi Editor

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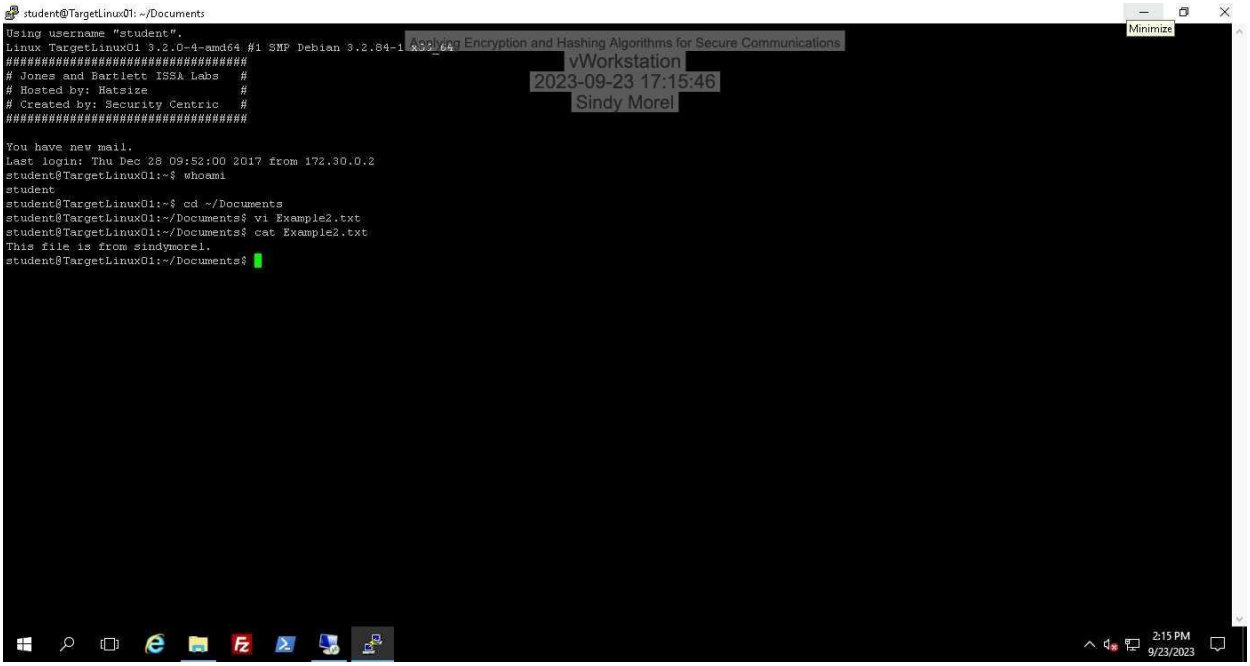
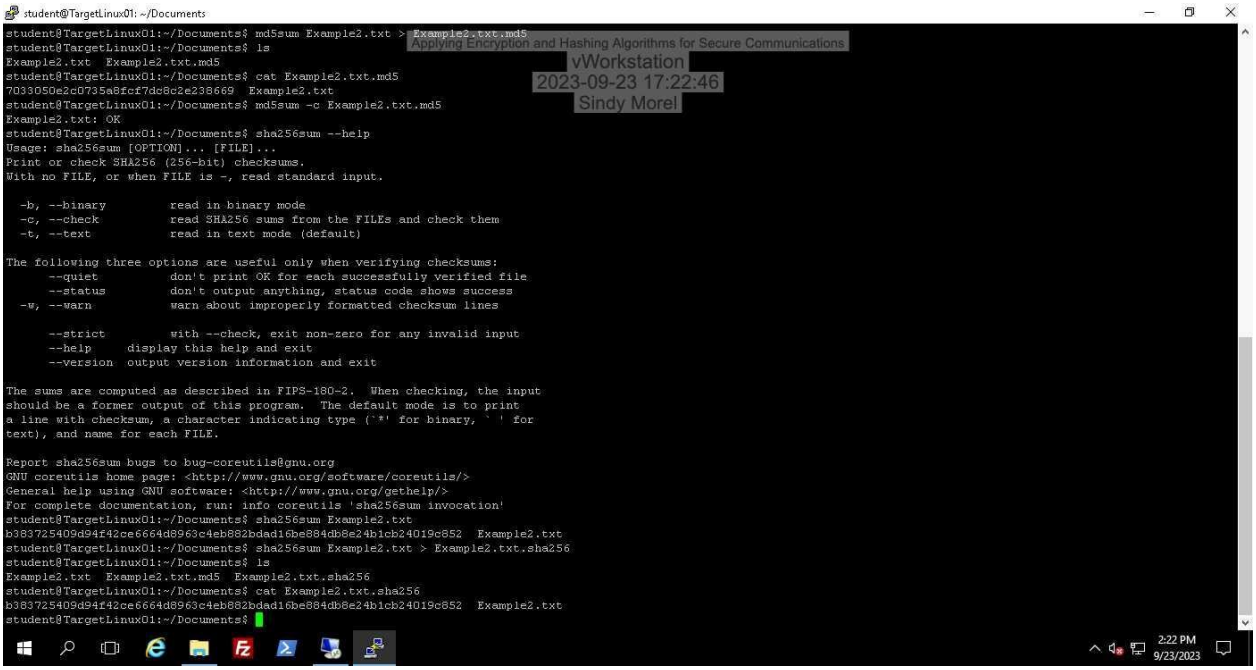
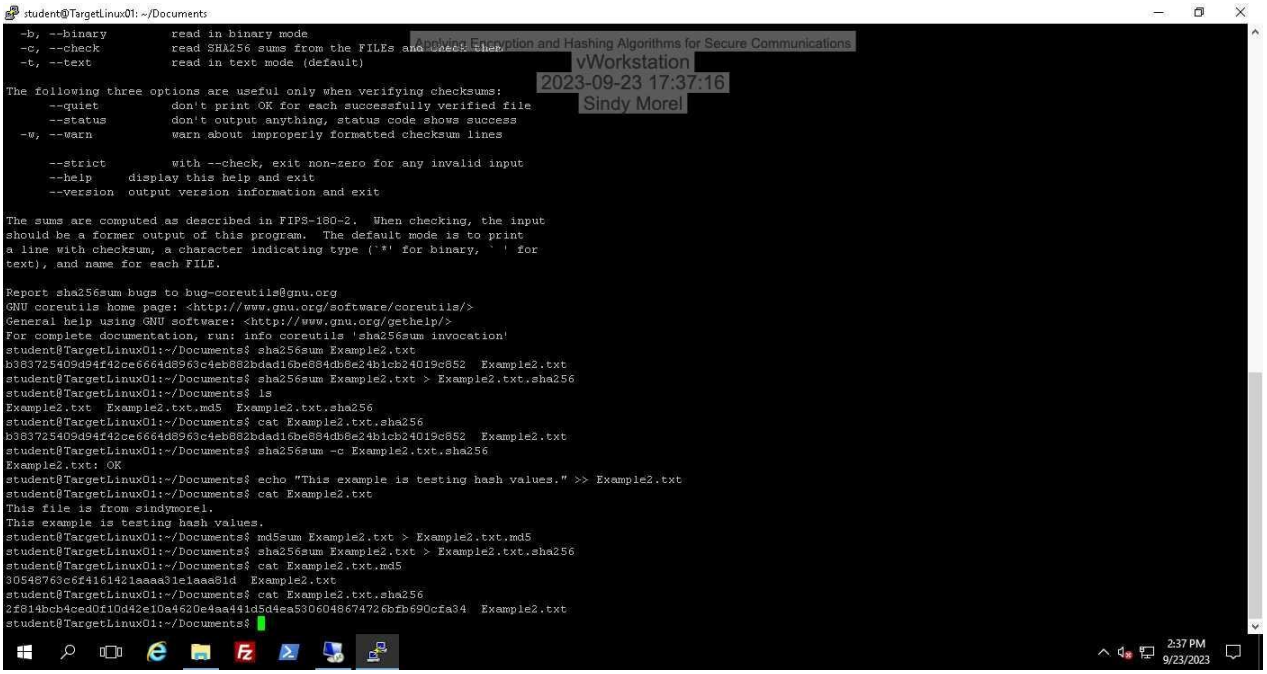
Part 1: Create a Text File on Linux



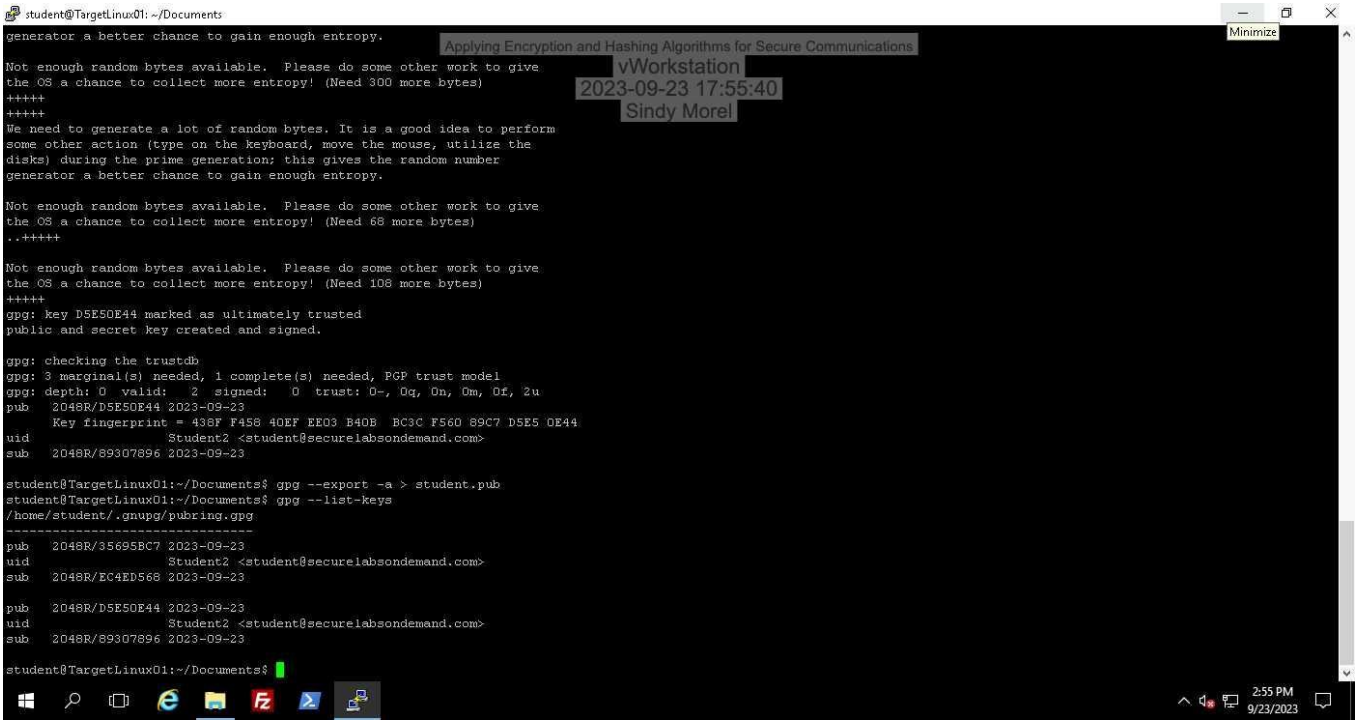
Part 2: Create a MD5sum and a SHA256sum hash string



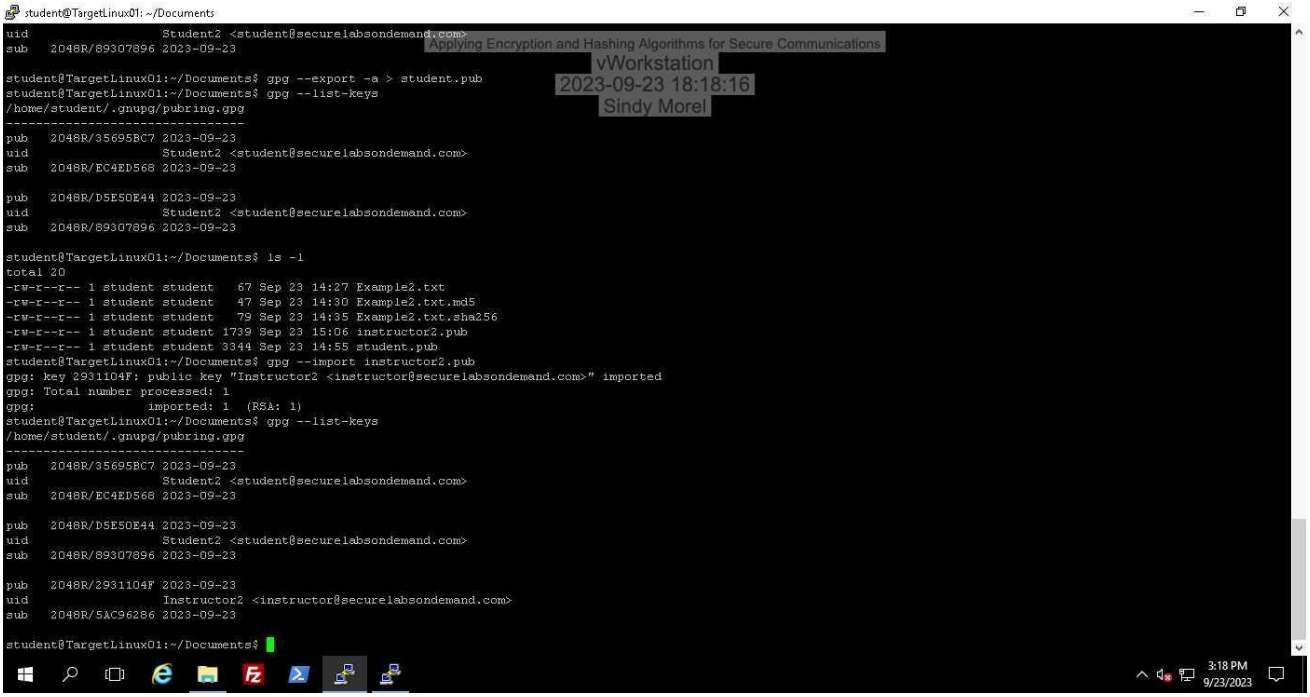
Part 3: Modify a File and Verify Hash Values



Part 4: Generate GnuPG Keys



Part 5: Share a GnuPG Key



Part 6: Encrypt and Decrypt a ClearText Message