**Practical Implementations:**

**Group A: Computer Network**

1. **Router Configuration Using Network Simulator (e.g., Cisco Packet Tracer):**
   * *Configuring a Router and Routing Information Protocol (RIP):*
     + Link: "<https://www.geeksforgeeks.org/router-configuration-with-cisco-packet-tracer/>"
     + Link: "<https://www.geeksforgeeks.org/rip-routing-configuration-using-3-routers-in-cisco-packet-tracer/>"
   * *Configuring Access Control Lists (ACLs) – Standard & Extended:*
     + Link: "<https://www.computernetworkingnotes.com/ccna-study-guide/configure-standard-access-control-list-step-by-step-guide.html>"
   * *Network Address Translation (NAT): Static, Dynamic & PAT (Port Address Translation):*
     + Link:
     + <https://chatgpt.com/share/67ef92ba-cbf0-800b-ab12-e490c77c6ee7>
     + <http://222.178.203.72:19005/whst/63/=vvvzfddjrenqfddjrznqf//network-address-translation-nat/>
     + "<https://medium.com/developer-student-clubs-tiet/beginners-guide-to-routing-in-cisco-packet-tracer-608f8a156d94>"
2. **Routing Protocols Configuration:**
   * *Enhanced Interior Gateway Routing Protocol (EIGRP):*
     + Link: "<https://medium.com/developer-student-clubs-tiet/beginners-guide-to-routing-in-cisco-packet-tracer-608f8a156d94>"
   * *Open Shortest Path First (OSPF):*
     + Link: "<https://medium.com/developer-student-clubs-tiet/beginners-guide-to-routing-in-cisco-packet-tracer-608f8a156d94>"
   * *Wireless LAN (WLAN) with Static IP Addressing and DHCP with MAC Security and Filters:*
     + Link: "<https://medium.com/developer-student-clubs-tiet/beginners-guide-to-routing-in-cisco-packet-tracer-608f8a156d94>"
3. **Socket Programming in C/C++ on Linux:**
   * *TCP Client and Server:*
     + Link: "<https://www.geeksforgeeks.org/socket-programming-cc/>"
     + Link: "<https://www.geeksforgeeks.org/socket-programming-in-cpp/>"
   * *UDP Client and Server:*
     + Link: "<https://www.geeksforgeeks.org/socket-programming-cc/>"
     + Link: "<https://www.geeksforgeeks.org/socket-programming-in-cpp/>"
4. **Server Administration:**
   * *FTP and Web Server Configuration:*
     + Link: "<https://www.scribd.com/document/682993396/How-to-Create-Web-Server-On-Packet-Tracer-GeeksforGeeks>"

**Group B: Network Security**

1. **Client-Server Communication Using RSA Cryptosystem in Python:**
   * Link: "<https://www.geeksforgeeks.org/rsa-algorithm-cryptography/>"
2. **Authentication Using RSA Digital Signature Cryptosystem in Python:**
   * Link: "<https://www.geeksforgeeks.org/digital-signature-algorithm-dsa/>"
3. **Message Encryption Using DES Algorithm and Key Exchange Using Diffie-Hellman in Python:**
   * Link: "<https://www.geeksforgeeks.org/data-encryption-standard-des-set-1/>"
   * Link: "<https://www.geeksforgeeks.org/diffie-hellman-algorithm/>"
4. **Intrusion Detection Systems (IDS):**
   * *Snort and Traffic Analysis:*
     + Link: "<https://www.geeksforgeeks.org/intrusion-detection-system-ids-using-snort/>"

**Theory Overview:**

**Group A: Computer Network**

1. **Network Models and Protocols:**
   * *OSI and TCP/IP Models:*
     + Link: "<https://www.geeksforgeeks.org/last-minute-notes-computer-network/>"
2. **Routing Protocols:**
   * *Routing Information Protocol (RIP):*
     + Link: "<https://elearn.daffodilvarsity.edu.bd/pluginfile.php/1899118/mod_resource/content/3/Book.pdf>"
   * *Enhanced Interior Gateway Routing Protocol (EIGRP):*
     + Link: "<https://elearn.daffodilvarsity.edu.bd/pluginfile.php/1899118/mod_resource/content/3/Book.pdf>"
   * *Open Shortest Path First (OSPF):*
     + Link: "<https://elearn.daffodilvarsity.edu.bd/pluginfile.php/1899118/mod_resource/content/3/Book.pdf>"
3. **Access Control Lists (ACLs):**
   * *Standard and Extended ACLs:*
     + Link: "<https://elearn.daffodilvarsity.edu.bd/pluginfile.php/1899118/mod_resource/content/3/Book.pdf>"
4. **Network Address Translation (NAT):**
   * *Static, Dynamic, and Port Address Translation (PAT):*
     + Link: "<https://elearn.daffodilvarsity.edu.bd/pluginfile.php/1899118/mod_resource/content/3/Book.pdf>"
5. **Wireless LAN (WLAN):**
   * *Static IP Addressing, DHCP, MAC Security, and Filters:*
     + Link: "<https://elearn.daffodilvarsity.edu.bd/pluginfile.php/1899118/mod_resource/content/3/Book.pdf>"
6. **Socket Programming:**
   * *TCP and UDP Client-Server Models:*
     + Link: "<https://www.geeksforgeeks.org/socket-programming-cc/>"
7. **Server Administration:**
   * *FTP and Web Server Configuration:*
     + Link: "<https://tndalu.ac.in/econtent/9_Computer_Network_And_Network_Security.pdf>"

**Group B: Network Security**

1. **Cryptographic Algorithms:**
   * *RSA Cryptosystem:*
     + Link: "<https://www.geeksforgeeks.org/rsa-algorithm-cryptography/>"
   * *Digital Signatures:*
     + Link: "<https://www.geeksforgeeks.org/digital-signature-algorithm-dsa/>"
   * *Data Encryption Standard (DES):*
     + Link: "<https://www.geeksforgeeks.org/data-encryption-standard-des-set-1/>"
   * *Diffie-Hellman Key Exchange:*
     + Link: "<https://www.geeksforgeeks.org/diffie-hellman-algorithm/>"
2. **Intrusion Detection Systems (IDS):**
   * *Snort and Traffic Analysis:*
     + Link: "<https://www.geeksforgeeks.org/intrusion-detection-system-ids-using-snort/>"