**Roll No.:** 20BCE204

**Course Name:** MOS

**Practical No.:** 8

**Aim:** Explore security and other features of various operating systems like Linux, iOS, Palm OS, Widows, etc.

**Linux:**

* Firewall: Linux systems come with built-in firewall tools like iptables or its successor, tables, which allow administrators to define rules for network traffic filtering, effectively protecting the system from unauthorized network access.
* Auditing and Logging: Linux systems can be configured to generate extensive audit logs that track system activities, helping administrators detect and respond to security breaches or suspicious behavior.
* Encryption: Linux supports various encryption techniques, including disk encryption (e.g., LUKS), SSL/TLS for secure communication, and tools like GPG for email and file encryption.
* PAM (Pluggable Authentication Modules): PAM allows for flexible authentication methods, enabling the integration of various authentication schemes such as multi-factor authentication, smart cards, and more.

**Ios:**

* Face ID and Touch ID: iOS devices are equipped with biometric authentication methods like Face ID and Touch ID, providing convenient yet secure ways for users to unlock their devices and authenticate for various actions.
* Find My iPhone: The Find My iPhone feature allows users to remotely lock or erase their device if it's lost or stolen, preventing unauthorized access to personal data.
* App Store Review Process: All apps submitted to the App Store undergo a strict review process by Apple to ensure they meet security and privacy guidelines. This helps protect users from potentially harmful apps.
* Privacy Labels: In the App Store, users can find privacy labels that show how apps handle data and what information they collect. This transparency helps users make informed choices about the apps they install.

**Palm OS:**

* Data Encryption: Some third-party applications for Palm OS allowed users to encrypt specific files or databases on their devices. This added an additional layer of security to protect sensitive information.
* Limited User Accounts: Palm OS devices supported the creation of multiple user accounts, each with its own set of preferences and data. While not primarily a security feature, this could be used to separate data between different users of the same device.
* It's important to note that Palm OS was primarily designed for personal productivity and simplicity, and it lacked the advanced security features found in more modern mobile operating systems. As a result, it was not suitable for high-security applications or for handling sensitive corporate or government data.

**Windows:**

* Windows Defender: Windows includes built-in antivirus and anti-malware protection through Windows Defender, which scans for and removes threats like viruses, spyware, and ransomware.
* Windows Firewall: The built-in Windows Firewall allows users to control inbound and outbound network traffic, helping to block unauthorized access and protect against network-based attacks.
* Credential Guard: This feature helps protect against credential theft and pass-the-hash attacks by isolating and securing user credentials.
* Windows Hello: Windows Hello provides biometric and PIN-based authentication for secure and convenient login to Windows devices.