**Focus especially on recent changes made to enhance security within the OS and the effects these have on application developers.**

**Remember to consider low-level security of features within the OS such as related built-in encryption techniques/tools (e.g., File Vault in macOS ).**

**In the end, briefly compare the listed techniques/tools with similar techniques in an alternative OS.**

1) A high-level description of the security features of an OS file system (15% of the assessment component mark). (WORDS: 225) 3 or 4?

2) A detailed description of how your selected OS supports and provides the listed security features. This should be based on the official documents and includes the timeline that tells from which version the mentioned features were added to the selected OS (30%). (WORDS: 450)

3) A comparison of the listed features in your selected OS with an alternative OS (15%). (WORDS: 225)

4) The effects that the listed security features have on application developers (20%). (WORDS: 300)

5) A conclusion section that includes recommendations for improving the security of OS File Systems and personal reflection(15%). (WORDS: 225)

6) References (using Harvard or Numerical style of referencing) and proper citation(5%).

Upload to github

1. Excellent: Provides an excellent overview of the report and it covers all the essential features, concise, and brief.

Description of Security Features - (WORDS: 225) ¼ = 60

* Security Descriptor - Holds metadata about all the access rights to users or groups for a windows object in a data structure (Ashcraft, 2020).
* File System Permissions - Limit how users and groups can interact with folders and files. This is done by allocating rights, making interactions managed (Oliver, 2022).

* Auditing - This enables administrators to define particular security events to be logged and what specific behaviours to log for each event. The log can be examined afterwards to conduct post-mortem analysis of a broken/compromised system (Hollasch, 2021).

* Access Control List - Allows you to choose the access type, specify the groups and users whose access you want to limit or enable, and configure permissions on a file or folder (Ashcraft, 2023).

* BitLocker Drive Encryption - This allows critical system data and other data saved on NTFS volumes to be further secured, aiding in preventing unauthorised users from accessing system files (Gerend, 2021).

* Controlled folder access -  Protects your critical data from dangers, by comparing apps to a database of well-known, trustworthy apps. Thus, only allowing trusted apps to access the file system (Vangel-MSFT, 2023)

* User Account Control - UAC ensures that all processes and apps always operate in the context of a non-administrator account unless a system administrator explicitly grants administrator-level access (Matarazzo, 2022)

A detailed description of how your selected OS **supports** and **provides** the listed security features. Include **timeline** that tells from which **version the mentioned features were added** to the selected OS. (450 WORDS 64 each)

Provide feature, how this supports you as a user (how you make use of it)

Supports – what good is it to you

* Security Descriptor – Window provides a data structure consisting of a security identifier of the object owner, an optional security identifier for the object’s default group, a system access control list that details the auditing policy and a discretionary access control list that details the access policy. This supports the user with information about permissions and control over who has access to an object in the file system.
* File System Permissions – Windows provides users with the ability define the degree of access for users and groups on files, with standard permissions including full control, modify, read and execute, list folder contents, read and write. This supports the user by specifying what users can do with files/folders, enabling supervision of interactions of the file system.
* Auditing – Windows provides a log of the specific events and behaviours that the user has chosen. This supports the user as when a file system becomes comprised, the log provides details which can entail how the system has become compromised. This can be used to fix the vulnerability that the file system acquires.
* Access Control List – Windows provides a list made up of access control entries that the user can add to or remove. This supports the user by allowing them to specify the access rights which include allowed, denied or audited for a selected trustee.
* BitLocker Drive Encryption -
* Controlled folder access -
* User Account Control -

# References

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