Activity 1

Operating Systems

Adrian Philip T. Onda BSIT-S-T-2A-T 01/07/2024

Operating System

- An operating system is a system software that acts as an interface between user and the computer hardware and controls the execution of all kinds of program.

Vendor Support:

- Help from the company (like Microsoft for Windows) to keep the system stable and secure. Includes updates, security fixes, and sometimes new features.

Codename:

- A secret name for the software during development. Gives insight into goals or features before the official release.

System Type (Architecture):

- Type of CPU and instructions the OS works on (like 32-bit or 64-bit). 64-bit systems can handle more RAM and complex tasks.

System Requirements:

- Lists what your computer needs to run the OS. Includes details about the processor, RAM, storage, and graphics.

Features:

- Things the OS can do. Includes better looks, security, new apps, and tech support.

Application Compatibility:

- Checks if the OS can run older software. Might need special settings or updates.

Backup and Restore Procedures:

- Making copies of data and settings for emergencies. Methods include manual backups and features like System Restore.

Installation Procedures:

- Steps to put the OS on your computer. Includes choosing options, setting up, and now often with user-friendly interfaces.

COMPARISON

Vendor Support

- Windows 95, 98, and ME have no official vendor support, making them outdated and insecure due to the lack of updates. Windows XP's official support ended in April 2014, rendering it unsafe for use as it faces security and compatibility issues with modern software and hardware, similar to the first three operating systems. Windows Vista's support ended in April 2017, making it vulnerable to security threats. Windows 7's support concluded in January 2020, prompting users to migrate for security reasons. Windows 8/8.1 had mainstream support ending in January 2018, with extended support until January 2023, marking the official end of support. Windows 10 still receives active support with regular updates until October 2025, ensuring software compatibility. Windows 11 is also receiving ongoing support, focusing on modern technologies and enhancing the user experience.

Codename

Windows 95 - Chicago

Windows 98 - Memphis

Windows ME - Millenium

Windows XP - Whistler

Windows Vista - Longhorn

Windows 7 - Vienna

Windows 8/8.1 - Blue

Windows 10 – Threshold/Redstone

Windows 11 - Sun Valley.

System Type (Architecture)

- Windows 95/98/ME, these 3 OS has the same system type which is 32-bit. Windows XP, it's started to 32-bit but later on upgraded to 64-bit. Windows Vista are available on both 32-bit and 64-bit. Windows 7 is also available on 32-bit and 64-bit. Windows 8/8.1/10 are also available in both 32-bit to 64-bit versions. Windows 11 is only 64-bit.

System Requirements

- The system requirements evolved as they released new versions to improved the performance of each version. For Windows 95, the processor required is 386DX or higher and the RAM required is 4MB but it is recommended to be 8MB. Windows 98, the processor required is 486DX/66 MHz or higher and the RAM required is 16MB but it is recommended to be 24MB. For Windows ME, the processor required is 150 MHz Pentium and the RAM required is 32MB. For Windows XP, Pentium 233 MHz is the required processor and the RAM should be 64MB-128MB. For Windows Vista, 1 GHz 32-bit(x86) or 64-bit(x64) processor is the requirements and the RAM should be 1GB-2GB. For Windows 7, 1 GHz 32-bit or 64-bit processor is the requirements for the processor and the RAM should be 1GB-2GB. For Windows 8/8.1, same with the Windows 7 the processor required is 1 GHz 32-bit or 64-bit processor and RAM should be 1GB and 2GB for 64-bit. For Windows 10, 1 GHz or faster is the required processor and the RAM should be 1GB-2GB. For Windows 11, 1 GHz or faster with 2 or more cores on a compatible 64-bit processor.and the RAM should be 4GB or higher.

Features

- It has many differences on each version so I will just mention the one that I think is important. For Windows 95, introduced the Start menu for easy access to programs. Windows 98, introduced the Windows Update service. Windows ME, introduced the System Restore for system recovery. Windows XP, introduced a redesigned Luna user interface. Windows Vista, introduced the visually appealing Aero interface. Windows 7, introduced the window snapping for easy multitasking. Windows 8/8.1, introduced the Metro user interface with live tiles. Windows 10, introduced the digital assistant Cortana. Windows 11, introduced widgets for personalized information.

Application Compatibility

- For Windows versions like 95, 98, and ME, difficulties in application compatibility are obvious due to limited built-in mechanisms. Windows XP addressed some of the issues of the older versions but still struggled to advance its technology. Windows Vista also faced application compatibility issues due to changes in the operating system's architecture. With Windows 7, there was a significant improvement in application compatibility. Windows 8/8.1 continued enhancing compatibility, introducing new features for smoother operation. Windows 10 marked a remarkable improvement in terms of application compatibility, enabling users to run a diverse range of software. Lastly, Windows 11 maintains a strong focus on application compatibility while introducing new features for smoother compatibility with modern applications.

Backup and Restore Procedure

- For Windows 95, 98, and ME, reliance on third-party tools for backup was necessary. Windows XP introduced System Restore. Windows Vista brought in Windows Backup and Center to provide more control over files and system backups. Windows 7 introduced File History for continuous data backups. Windows 8/8.1 and Windows 10 continued to improve File History and enhanced image creation. Windows 10 also utilized cloud services like OneDrive for additional data protection. Windows 11 maintains the backup and restore features, continuing to leverage cloud integration and providing users with a safe experience for data protection and recovery.

Installation Procedure

- For Windows 95, 98, and ME, installations were straightforward from floppy disks or CDs. Windows XP maintained a similar installation approach but featured a more user-friendly interface with clearer instructions during the installation process. Windows Vista revamped the installation experience with a more appealing interface. Windows 7 refined the installation process, simplifying the experience for the user with improved wizards. Windows 8/8.1 introduced a touch-focused interface in their installation. Windows 10 brought back a more familiar and simple desktop interface, combining the Start menu with a live tile concept. Windows 11 builds upon the Windows 10 installation process and features new design elements and user customization during installation.

Summary

- We have all learned that starting with a basic operating system, despite its initial struggles and shortcomings, also offers valuable experiences. This is because technology continues to evolve up to this day, driven by people's constant desire for innovation and their willingness to invest in new advancements. Creators of numerous operating systems worldwide are consistently making improvements to provide users with the best possible experience.