**Lab#2**

**Lab Tasks:**

Q1 Discuss different versions of Microsoft Windows?

Q2 Explain difference between Microsoft Windows and Apple’s MacOS?

Q3 Write steps to install a fresh Microsoft Windows 10 from a downloaded ISO file?

**Introduction to Windows Operating system, Common Applications and Important Terminologies**

**LAB # 02**



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**CSE102L Computer Programming Lab**

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“On my honor, as student of University of Engineering and Technology, I have neither given nor received unauthorized assistance on this academic work.”

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Submitted to:

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Q#1: Discuss different versions of Microsoft Windows?  
Ans:

Versions:

1)MS-DOS:

MS-DOS (Microsoft Disk Operating System) in 1981, Originally developed by Microsoft for IBM, MS-DOS was the standard operating system for IBM compatible personal computers. The initial versions of DOS were very simple and resembled another operating system called CP\M. Subsequent versions have become increasingly sophisticated as they incorporated features of minicomputer operating systems.

2)Windows 1.0-2.0:

Instead of typing MS-DOS commands, windows 1.0 allowed users to point and click to access the windows. IN 1987 Microsoft released Windows 2.0, which was designed for the designed for the Intel 286 processor. This version added desktop icons, keyboard shortcuts and improved graphics support. Introduced in 1985, Micro soft windows.0 was named due to the computing boxes, or "Windows" that represented a

3)windows 3-3.1:

Windows 3.0 was released in May, 1900 offering better icons, performance and advanced graphics with 16 colors designed for Intel 386 processors. This version is the first release that provides the standard "look and feel" of Microsoft Windows for many years to come. Windows 3.0 included Program Manager, File Manager and Print Manager and games (Hearts, Minesweeper and Solitaire). Microsoft released Windows 3.1 in 1992.

4)Windows 95:

It was released in 1995 and was a major upgrade to the Windows operating system. This OS was a significant advancement over its precursor, Windows 3.1. In addition to sporting a new user interface, Windows 95 also includes a number of important internal improvements. Perhaps most important, it supports 32-bit applications, which means that applications written specifically for this operating system should run much faster. Although Windows 95 can run older Windows and DOS applications, it has essentially removed DOS as the underlying platform. This has meant removal of many of the old DOS limitations, such as 640K of main memory and 8-character filenames. Other important features in this operating system are the ability to automatically detect and configure installed hardware (plug and play).

5)Windows98:

IT offers support for a number of new technologies, including FAT32, AGP, MMX, USB, DVD, and ACPI. Its most visible feature, though, is the Active Desktop, which integrates the Web browser (Internet Explorer) with the operating system. From the user's point of view, there is no difference between accessing a document residing locally on the user's hard disk or on a Web server halfway around the world.

6)Windows ME-millennium edition:

The Windows Millennium Edition, called "Windows Me" was an update to the Windows 98 core and included some features of the Windows 2000 operating system. This version also removed the "boot in DOS" option.

7)Windows NT 31-4.0:

A version of the Windows operating system. Windows NT (New Technology) is a 32-bit operating system that supports preemptive multitasking. There are actually two versions of Windows NT: Windows NT Server, designed to act as a server in networks, and Windows NT Workstation for stand-alone or client workstations.

8)Windows 2000:

Often abbreviated as "W2K," Windows 2000 is an operating system for business desktop and laptop systems to run software applications, connect to Internet and intranet sites, and access files, printers, and network resources. Microsoft released four versions of Windows 2000: Professional (for business desktop and laptop systems), Server (both a Web server and an office server), Advanced Server (for line-of-business applications) and Datacenter Server (for high-traffic computer networks).

9)Windows XP:

Windows XP was released in 2001. Along with a redesigned look and feel to the user interface, the new operating system is built on the Windows 2000 kernel, giving the user a more stable and reliable environment than previous versions of Windows. Windows XP comes in two versions, Home and Professional.  Microsoft focused on mobility for both editions, including plug and play features for connecting to wireless networks. The operating system also utilizes the 802.11x wireless security standard. Windows XP is one of Microsoft's best-selling products.

10)WINDOWS VISTA:

IT offered an advancement in reliability, security, ease of deployment, performance and manageability over Windows XP. New in this version was capabilities to detect hardware problems before they occur, security features to protect against the latest generation of threats, faster start-up time and low power consumption of the new sleep state. In many cases, Windows Vista is noticeably more responsive than Windows XP on identical hardware. Windows Vista simplifies and centralizes desktop configuration management, reducing the cost of keeping systems updated.

11)WINDOWS 7:

It was released by Microsoft on October 22, 2009 as the latest in the 25-year-old line of Windows operating systems and as the successor to Windows Vista (which itself had followed Windows XP). Windows 7 was released in conjunction with Windows Server 2008 R2, Windows 7's server counterpart. Enhancements and new features in Windows 7 include multi-touch support, Internet Explorer 8, improved performance and start-up time, Aero Snap, Aero Shake, support for virtual hard disks, a new and improved Windows Media Center, and improved security.

12)WINDOWS 8:

It  was released on August. 1, 2012 and is a completely redesigned operating system that's been developed from the ground up with touchscreen use in mind as well as near-instant-on capabilities that enable a Windows 8 PC to load and start up in a matter of seconds rather than in minutes. Windows 8 will replace the more traditional Microsoft Windows OS look and feel with a new "Metro" design system interface that first debuted in the Windows Phone 7 mobile operating system. The Metro user interface primarily consists of a "Start screen" made up of "Live Tiles," which are links to applications and features that are dynamic and update in real time.  Windows 8 supports both x86 PCs and ARM processors.

13)WINDOWS 10:

It is Microsoft's Windows successor to Windows 8. Windows 10 debuted on July 29, 2015, following a "technical preview" beta release of the new operating system that arrived in Fall 2014 and a "consumer preview" beta in early 2015. Microsoft claims Windows 10 features fast start up and resume, built-in security and the return of the Start Menu in an expanded form. This version of Windows will also feature Microsoft Edge, Microsoft's new browser. Any qualified device (such as tablets, PCs, smartphones and Xbox consoles) can upgrade to Windows 10, including those with pirated copies of Windows.

Q#2: Explain difference between Microsoft Windows and Apple’s MacOS?

Ans:

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| --- | --- |
| Microsoft windows | Apple’s MacOS |
| 1.Windows is a group of various proprietary graphical operating systems which is provided by Microsoft Incorporation. | 1.MacOS is a series of proprietary graphical operating systems which is provided by Apple Incorporation. |
| 2. It is also known as **Microsoft Windows** | 2.  It was earlier known as Mac OS X and later OS X. |
| 3.  It currently includes Windows NT and Windows IoT as members of its family. | 3.  It is specifically designed for Apple mac computers. It is based on Unix operating system |
| 4. Earlier it included Windows 9x, Windows Mobile and Windows Phone which are no longer in use. | 4. It was developed using C, C++, Objective-C, assembly language and Swift |
| 5. It is the most used operating system in personal computers | 5. It is the second most used operating system in personal computers after Windows |
| 6.The first version of Windows was launched by Microsoft in 1985 | 6.The first version of macOS was launched by Apple in 2001. |
| 7.  The most recent version of Windows for personal computers is Windows 10. | 7.  The latest stable version of macOS is 10.15.1 which is also known as Catalina. |

Q#3: Write steps to install a fresh Microsoft Windows 10 from a downloaded ISO file?

Ans:

Steps of installing a fresh window:

1. To burn the ISO to a disc or copy it to a USB is a free utility from Microsoft called Windows USB/DVD Download Tool. This tool copies the contents of the ISO file to a CD, DVD, or USB drive so you can then install the program from the disc or USB drive, which becomes bootable. This is a good method if you want to install Windows 10 on a clean computer or as part of a dual-boot setup.
2. After you download the Windows10-USB-DVD-Download-Tool-Installer.exe file, right-click on it and choose the option to Run as Administrator. Following the installation, launch the tool. Browse to and select the ISO file you wish to burn. Click Next.
3. At the next step, choose either to use a USB device or a DVD.
4. If you choose USB, the next screen asks you to insert the USB media. If you have more than one USB drive plugged into your PC, make sure to choose the correct one. Then, click Begin copying.
5. If the USB drive still contains data, it will be erased. Click Erase USB Drive to make room for the Windows files. After the files have been copied, the tool will tell you that the Bootable USB device was created successfully. You can then use your USB device to install the program.