### **Terms and definitions from Course 3**

A

**Absolute path:** It is one that starts from the main directory

**ACI:** Access Control Lists

**Administrator:** A user that has complete control over a machine

**Alias:** A nickname for common commands

**Appending flags:** A way to add the data of the file without erasing existing data

**App Store apps:** A Package Manager that acts as a repository

**App Store repository:** A app store service that also acts as a repository

**App stores:** A central managed marketplace for app developers to publish and sell mobile apps

**APPX:** An APPX is another way to package contents of a file to act like a unit of distribution

**Archive:** An archive is comprised of one or more files that are compressed into a single file" for verb agreement

B

**Background processes/Daemon processes:** Processes that run or take place in the background

**Bash:** The language used to interact with the shell

**Biometric data:** A way of protecting your accounts and information using biometric data such as facial recognition and fingerprint

**Block devices:** A system that acts like USB drives and hard drive by transmitting data

C

**Cache:** The assigned stored location for recently or frequently accessed data; on a mobile app it is where anything that was changed or created with that app is stored

**Centralized logging:** Parsing logs in one central location

**Character devices:** A way to transmit data character by character like a keyboard and mouse

**Child directories:** It is a directory housed by a parent directory

**Chocolatey:** A third party package manager for Windows

**CLI:** Command line interpreter

**Client/Server runtime subsystem:** System that handles running Windows GUI and Command line

**Closed source packages:** A source code that does not allow public access

**Command line:** A text interface program for a computer that inputs text commands and translates them to the operating system

**Command line mode:** When you are able to run commands while still in your current shell

**Computer management:** A tool that lets you manage a local or remote computer

D

**DACL:** Directory Control Lists

**Data:** Actual content of a file

**Data buffer:** A region of RAM that’s used to temporarily store data while it’s being moved around

**Debian(.deb):** A Debian package is packaged as a .deb file

**Defragmentation:** A process of taking all the files stored on a given disk and reorganizing them into neighboring locations

**Device manager:** A console management system for your device

**Disk Management utility:** Native tool for Windows that helps with managing disk space

**Disk to disk cloning:** A type of cloning that happens when you connect an external hard drive to the machine you want to clone

**Driver:** Used to help our hardware devices interact with our Operating System

**Dynamic-link libraries:** Programs that want to use functionality that the code provides can tap into it if they need to (shared libraries)

E

**Enterprise app management:** A management system that allows an organization to to distribute custom mobile apps

**Environment:** Whatever settings or variables a child process inherits from the parent’s process

**Escape characters:** A concept that means that the next character after the back tick should be treated literally

**Event Viewer:** A place where all events that have been logged are stored

**Executable file:** A file containing instructions for a computer to execute when they’re run

**.exe:** A file extension found in Windows for an executable file

F

**Factory reset:** Resetting a device to the settings it came with from the factory

**File permissions:** A process for setting permissions for who has access to certain files

**File record number:** The index of the files entry in the MFT

**File system:** Used to keep track of files and file storage on a disk

**Full control:** A user or group with full control that can do anything they want to files

G

**Groups:** A collection of users

**GUI:** A graphical user interface

**GUID partition table:** Only used if you are using UEFI booting

H

**Hard link:** When created in NTFS, an entry is added to the MFT that points to the linked file record number, not the name of the file. This means the file name of the target can change and the hard link will still point to it

**Hardware ID:** A special string of characters assigned to hardware

**Having dependencies:** A process of counting on other pieces of software to make an application work since one bit of code depends on another in order to work

**Hidden files:** A set of files that are not visible either to avoid alteration or simply because you don’t want someone to see them

**Hot key:** A keyboard shortcut that does a particular task

I

**Inherit only:** A permission group that means that a DACL will be inherited, but not applied to a container

**Inode:** A file structure for metadata and files

**Installing from source:** A process of installing from a source

**Interactive mode:** When the parted tool launches you into a separate program

**I/O Streams:** An input stream handles data flowing into and out of a program

K

**Kernel module:** It extends the kernel's functionality so developers don't have to actually touch the Linux kernel

L

**Library:** A way to package a bunch of useful code that someone else wrote

**List folder contents:** A command that will execute and list folder contents and is an alias for Read and Execute

**Logging:** The act of creating log events

**Log rotation:** A way for the OS to clean out log files to make room for new ones

**Logs:** Files that record system events on our computer

M

**Manifest:** A library used if an application needs to use a shared library

**Master boot record (MBR):** a traditional partition table within a storage disk that lets you have volume sizes of 2 terabytes or less and is mostly used in the Windows OS

**Master file table (MFT):** A way NTFS stores and represents the files you’re working with on your operating system

**Memory manager:** A Windows OS program that helps manage virtual memory

**Metadata:** Tells us everything we need to know about a file, including who created it, when it was last modified, who has access to it, and what type of file it is.

**Microsoft Install Package(.msi) and MSI files:** Microsoft Install Package isa file extension used to guide a program called Windows Installer in the installation, maintenance, and removal of programs of the windows operating systems. MSI files are a combination of of databases that contain installation instructions in different tables along with all the files

**Mobile applications:** Software that is distributed on mobile OS devices

**Mobile device management:** A system used to apply and enforce rules about how the device has to be configured and used

**Modify:** An umbrella permission that includes read and execute and write

**Mounting:** Making a file or hard disk accessible to the computer

**Multilingual user interface:** Interface that offers and support different languages

O

**OTA update:** A type of update that is installed by the mobile device itself

P

**Packaged archives:** The core or source software files that are compressed into one file

**Packaged managers:** An application that makes package installation and removal easier

**Parameter:** A value that is associated with a command

**Parent directory & child directories:** A parent directory is a directory that houses all subsequent child directories

**Partition:** A logical division of a hard disk that is treated as a separate unit by operating systems and file systems

**Partition table:** How the disk is partitioned on an OS

**Paths:** A main directory that branches off and holds other directories and files

**Personal package archives:** A software repository for uploading source packages to be built and published

**Portable Executable (PE) format:** Windows unique version of .exe

**Primary account:** The initial account you made during setup

**Processes:** Help the computer run programs

**Process Explorer:** A utility Microsoft created to let IT support specialists and system administrators look at running processes

**Process ID:** Unique identifier for processes on your computer

**Process monitoring:** A way of monitoring what processes are happening during installation

**Programs:** The applications that we can run

**Prompt:** A prompt shows you which directory you’re currently in

R

**Read and execute permission:** Permissions that grant you access to read the file that exists and execute it if its runnable

**Read permission:** Permissions that grant you access to read the file that exists

**Re-flash:** A way to preserve end-user data on a device that you plan on resetting

**Regular expression:** A pattern matching language that describes words, phrases, or more complicated patterns; regular expressions are used to help you do advanced pattern based selection

**Relative path:** It is a path from your current directory

**Remote connection:** The ability to connect an authorized person to a computer or network remotely; allows us to manage multiple machines from anywhere in the world

**Repository:** A server that acts like a central storage location for packages

**Resource monitoring:** The most common way to quickly take a peek at how system resources are doing

**Root directory:** A parent directory for all other directories in a file system

**Root user:** It is the first user that gets automatically created when we install a Linux OS and has all the privileges on the OS. Also called the super user. There's technically only one superuser or root account, but anyone that's granted access to use their powers can be called a superuser too

S

**SACL’s:** System Access Control List

**SD devices:** Mass storage devices like hard drives

**Secure copy:** A command you can use in Linux to copy files between computers on a network

**Security patch:** A piece of software that is meant to fix up a security hole

**Session manager subsystem:** Process that is in charge of setting some stuff up to work for the OS

**Shared folders:** A way to share files between computers on the same network on Windows

**Shell:** A shell is a command line interpreter for Linux

**Shortcut:** An entry in the MFT that has a reference to some destination, so that when you open it up, you get taken to that destination

**Side-by-side assemblies:** A system that manages most shared libraries and resources on Windows and supports access to multiple versions of the same shared library automatically

**Side-loading:** A process of installing mobile apps directly without using an app store

**Signal:** A way to tell a process that something has just happened

**Simple permissions:** Special or specific permissions

**Single sign on (SSO):** An account that grants you access to multiple accounts without require constant entry of a password or username

**Softlinks:** A shortcut in Linux, that allows us to link to another file using a file name

**SSH (Secure shell)**: A protocol implemented by other programs to securely access one computer from another

**SSH authentication key**: A secure authentication method for accessing a computer from other devices

**Standard error (stderr):** A data stream that redirect the output of error messages in a different output stream. It works both in Linux and Windows

**Standard In (stdin):** A data stream in which the input that you provide through the keyboard goes to the standard in stream of the process that you're interacting with. It works both in Linux and Windows

**Standard out (stdout):** A data stream that **when a process creates output, it adds data to the standard out stream, which flows out of the process.** It works both in Linux and Windows

**Standard user:** A user who is given access to the machine but has restricted access to do thing like install software or change certain setting

**Standard error (stderr):** An output stream where error messages are sent from a program or process

**Standard in (stdin):** An input stream where data is sent into a program or process

**Standard out (stdout):** An output stream where data is sent from a program or process

**Subdirectories:** A directory below or at a deeper level in the directory hierarchy

**Suspended apps:** A command that will tell the OS to suspend background mobile apps

**Swap space:** The allocated space where the virtual memory is stored on the hard drive when the amount of physical memory space is used up or full

**Symbolic links:** Work similarly to shortcuts, but at the file system level. The key difference is that the operating system treats them like substitutes for the file they're linked to in almost every meaningful way

**Sysinternals package:** A set of tools released by Microsoft that can help you troubleshoot

**System properties:** A control panel applet that allows you to edit the size and number and location of paging files

T

**Tab completion:** A way to auto-complete a command or file names and directories

**Task Manager:** A Windows utility that allows you to gain information about what tasks you have running in the background

**Termination signal:** A kill command that will stop whatever process you tell it to

**Trim:** A command to delete unused data blocks so the space can be used for the computer’s storage needs

U

**UEFI:** A new standard for BIOS

**Unix epoch:** It is the number of seconds since midnight on January first, 1970. It's a 'Zero Hour' for Unix based computers to anchor their concept of time

**UUID:** Universally Unique ID

V

**Variable:** Files that constantly change

**Virtual instance:** A single virtual machine

**Virtual memory:** A combination of hard drive space and RAM that acts like memory which our processes can use

**Volume:** A format for a filesystem on a partition

**VPN (Virtual private network)**: A secure method of connecting a device to a private network over the internet

W

**Wildcard:** A character that is used to help select files based on a certain pattern

**Windows domain:** A network of computers and users that are added to a central database

**Windows Search service:** A service that indexes files on your computer by looking through them on a schedule

**Windows store:** A Windows store is an application repository or warehouse where you can download and instal universal Windows platform apps

**Windows update client service:** System that runs in the background on your computer to download and install updates and patches for your operating system

**Write permission:** A permission that allows you to make changes to a file