

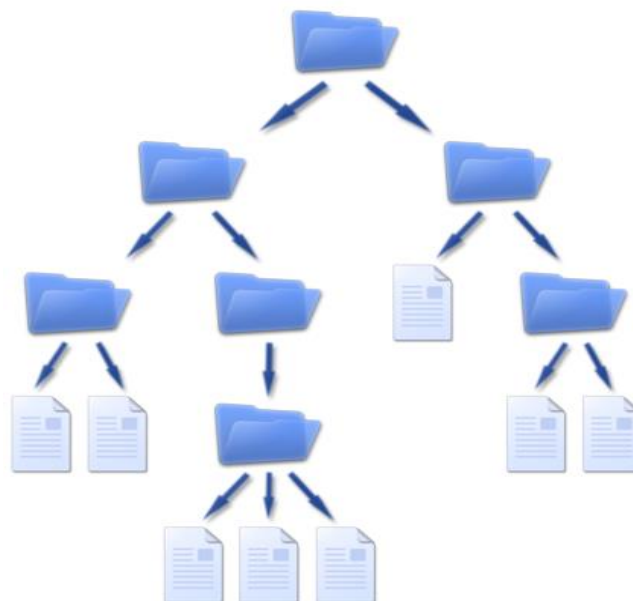
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IT Teacher



**CHAPTER  
5.1**

**ORGANIZING FILES & FOLDERS**



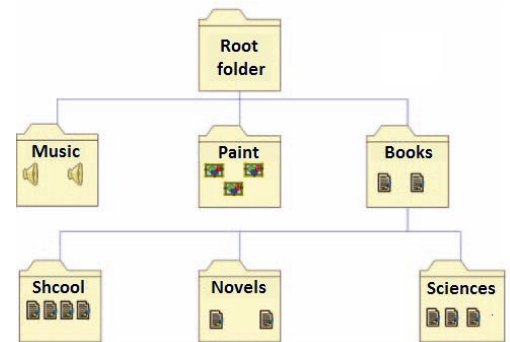
## CHAPTER 5 : ORGANIZING FILES & FOLDERS

### ASSORTMENT

- It is the **process of arranging data** inside a specific environment in ascending or descending order.
- A computer is a machine which should have its data (files and folders) conveniently arranged so they can be **easily accessed** by the user when needed.
- The assortment of files and folders inside a computer follows an **arboreal structure (Tree Structure)**.

### TREE STRUCTURE

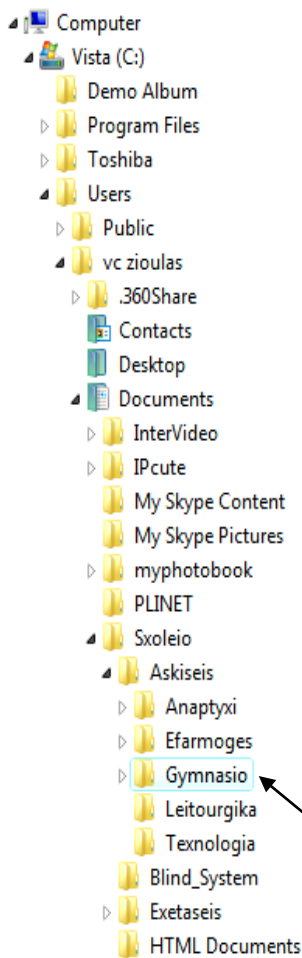
The file organization in a computer follows a **hierarchical order** starting in the first level with a basic element (folder) which guides (is analyzed) to other elements on level below and these elements guide to others one level below and so on.



#### Examples of arboreal structure

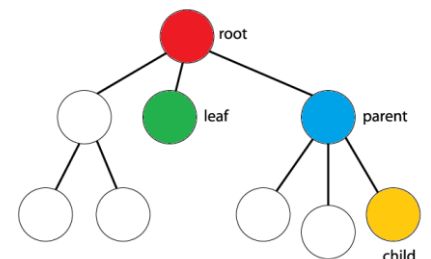
- Genealogical tree
- Structure of units & chapters of a school book
- Files and folders of a computer

### ORGANIZING COMPUTER FILES (File Manager)



Each modern operating system uses the arboreal structure to organize files and folders. Each element of a tree structure is called a **node** and might be a **file** or a **folder** node.

The first node of a tree structure is called a **root folder** and must be always a folder node. Every node (except root) comes from a **parent node** that is found always one level above. A parent node is analyzed in individual nodes that are called **child nodes** and always are found one level below. Each parent node is compulsively a folder node. A node that does not have any child (yet) is a terminal node and is best known as a tree **leaf**.



### FILE PATH

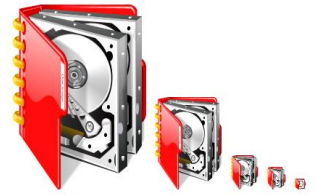
In order to access an individual node of the tree, we need to pass all the intermediary nodes starting from the root till it is found. The route we follow to access a specific file of the tree is called a **file path**.

Usually, the root folder of a computer tree is the hard disk of computer (C:) while the symbol used to express the passage from one node to another is **slash (\)**.

C:\Users\vczioulas\Documents\Sxoleio\Askiseis\Gymnasio

## APXEIO ( file )

- It is an **organized collection of data**, which are saved in a storage device of computer (e.g. hard disk, cd-rom) having a specific name as an identifier.
- A file is a collection of data in **binary form** containing any type of information (e.g. text, image, sound, video, animation).
- The data of a file have been encoded and saved in a computer in **digital form** and its capacity is represented in bytes.
- Each file has a name with which it can be accessed by user through the operating system e.g. *install.exe* , *car.jpg* , *mysong.mp3*
- The **filename** is decided by the user when he creates the file.
- The **file extension** is added automatically to the filename by the application used to create it.
- The type of extension gives user an important information to determine the kind of data the file includes (e.g. text file, image file, sound file etc) as well as the kind of software application that should be used to open and manage this kind of file.
- The **period** ( . ) is the symbol used to segregate the filename from the extension of a file.
- The file size is measured in **bytes** as well as their multiple units (KB, MB, GB).
- In a Command Line Interface (like Ms-Dos) a file name should be not greater than **8 characters** because the exceeding characters are not appeared, while in a Graphical User Interface there is not any similar restriction.
- Files can be easily organized and managed inside Windows with the help of special utility software called **File Manager**. To open it we select:



**File form**  
filename . extension

Start → Programs → Accessories → Windows Explorer

File formats	Type of Data
.bat .com	Executable system files
.exe	Executable files
.sys .dll .ini	Information system files
.txt .asc	Text files created by Notebook of Windows.
.doc .docx	Document files of MS Word 2003 - 2007
.xls .xlsx	Spreadsheet files of Ms Excel 2003 - 2007
.ppt .pptx	Presentation files of Ms Powerpoint 2003 - 2007
.jpg	Small size image files (1 : 75)
.bmp	Bitmap files created by Windows Paint
.gif	Image file with 8 bits color depth (256 colors)
.tif	Graphics files produced after publishing or scanning
.wav	Uncompressed sound files
.mp3 .flac	Compressed sound files (1 : 12.5)
.mid	Musical instruments sound files
.wma	Sound files opened with Windows Media Player
.avi .mpg .mov	Video and movie files
.wmv	Video files opened with Windows Media Player
.htm .html	Webpages
.pdf	Portable documents opened with Acrobat Reader
.zip .rar	Files after compression
.flv	Flash files open with Flash Player

### FILE TYPES

#### Executable Files

These files include commands that are executed immediately when opened.

#### System Files

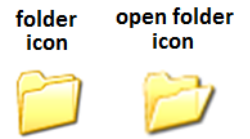
These files are used by the operating system of computer because they contain crucial data for computer operation.

#### Data Files

These are files that have been created by user with application software.

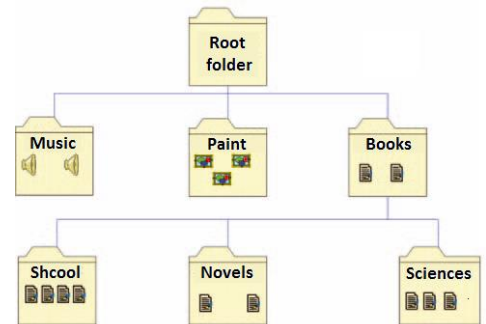
## FOLDER

- It is an **area of secondary memory** (hard disk, optical disk, flash memory) in which we have saved a variety of files and which has its own name as identifier.
- A folder may include a number of **subfolders** (being a parent node for them).
- In a graphical environment a folder is represented with an icon that is different from file icons.
- In command line interface (Ms-Dos) the folder is better known as **directory**.
- The appropriate organization of files and folders inside an operating system simplifies their fast search and access.



## PRINCIPLES OF CORRECT ORGANIZATION

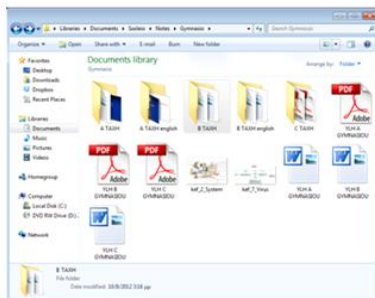
- In each folder we place relevant files and folders.
- The name of a file or folder should be indicative of its content.
- Folders or files with the same parent cannot have the same name.



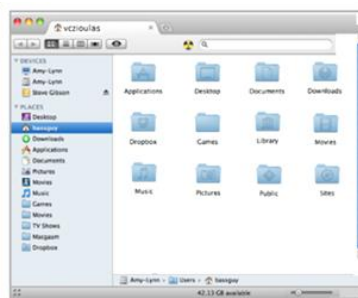
## MANAGING FILES & FOLDERS

Each operating system has an application in order to manage files and folders. This application in Windows is called **File Manager**, in Apple OS is called **Finder**, in Linux is called **Konqueror**, **Dolphin**, **Nautilus** etc. The key advantages of such an application are:

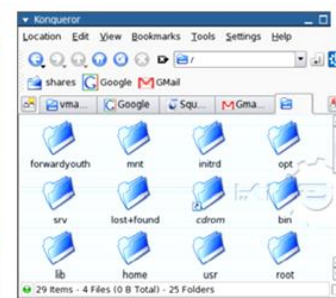
- Provides information for the features of files and folders (type, size, location etc)
- Provides the potential of managing information (change layout, views, sort types, grouping etc)
- Simplifies the management of files and folders (rename, copy, move, delete files etc)



Windows File Manager



Apple Finder



Linux Konqueror

To launch Windows File Manager:

Start → Programs → Accessories → Windows Explorer

## COMMON ACTS ON FILES & FOLDERS

Select file or folder	Hide file or folder	Shortcut file or folder
Open files or folder	Print file	Search file of folder
Create folder	Move file or folder	Change View of files
Rename file or folder	Delete file or folder	Sort files and folders
Copy file or folder	Restore file or folder	Defragment – Format disk