



FILES

Introduction



Data Structures and Algorithms

Lab Code: 17ECSP201



Why should I file?

- Giving a input(large) to a program manually every time is a time consuming job
 - ***Can we save the input data?***
- A programs calculations may be required for the future run
 - ***Can we save the output data?***

The inference is,

“Can we save the data?”





File Definition

A collection of data or information that has a name.

Almost all information stored in a computer must be in a file.

Reference: webopedia.com

A file is a place on the disk where a group of related data is stored.

Text book definition





File Name

A file name has **two** parts:

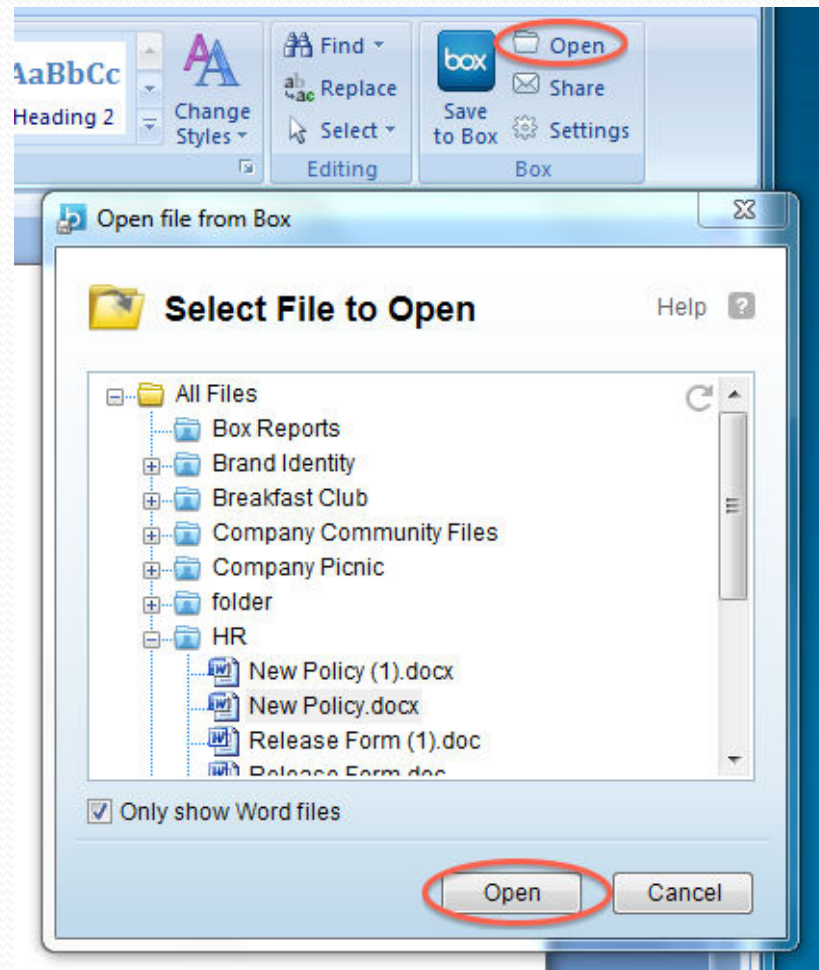
- A name and
- An Extension

Extension depends on the type of the file.





What Happens When I Open a File?

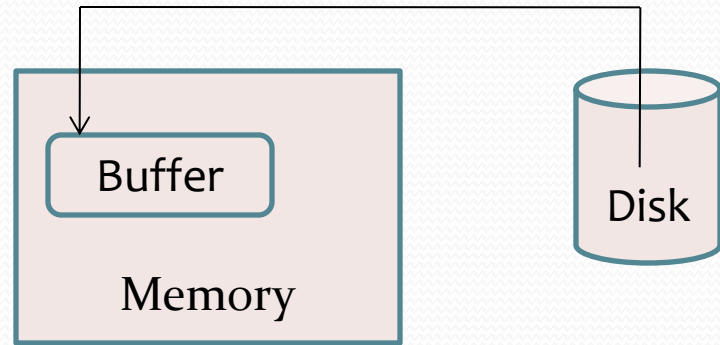




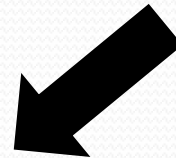
Opening a File



Search
the file
on the
disk



Loads file form disk
to buffer space



F	I	L	E	D	A	T	A
---	---	---	---	---	---	---	---	-----	-----



Character Pointer

Sets a character pointer
pointing to first character
of the buffer



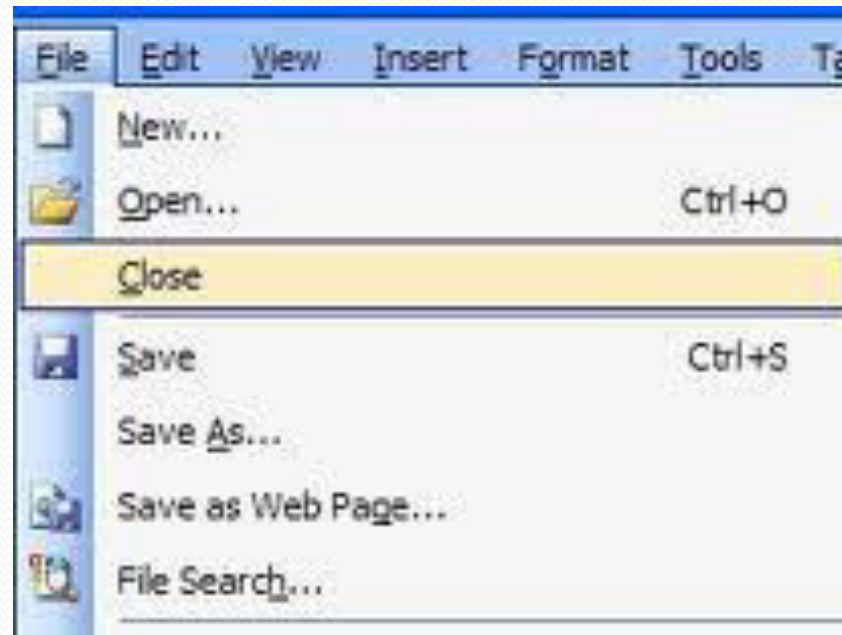


The Blinking Cursor



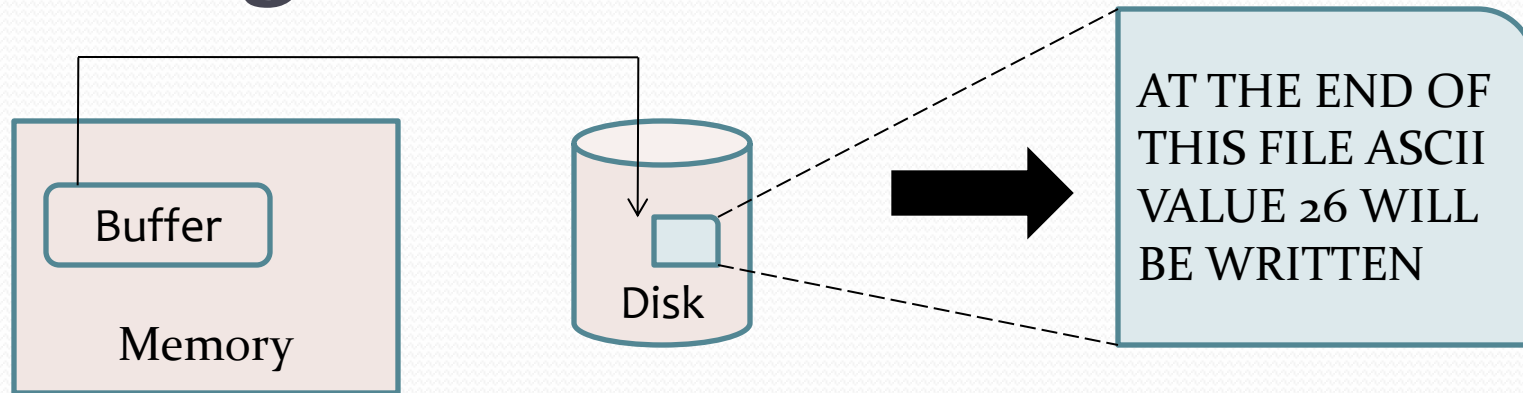


What Happens When I Close a File?



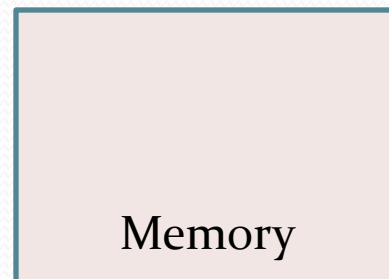


Closing a File



Characters from buffer
are written to file on disk

Marking the end of
the file



Buffer is eliminated from
the memory





File Operations

- Create a file
- Open a file
- Read from a file
- Write to a file
- Move to a specified location in a file
- Close a file





References

Contents:

[1] Yashwant P Kanetkar, “Let Us C”, BPB Publications, 2010

Images Icons:

[1]<http://pod.doe.in.gov/groups/learningconnectionhelp/wiki/8f52d/images/f1fd4.png>

[2]http://sites.box.com/help/images/plugins/office/open_file.png

[3]<https://www.ctdlc.org/remediation/3-SoftwareApp/images/fileClose.jpg>



Thank you.

(More about files and API's in Next lab session)

