FILES

Files allow you to store data on a secondary storage device so that your programs can later retrieve that data again.

File Types:

- Text Files: Hold data which you can read and print.
- Binary Files: Hold data which can only be understood by the computer.

Data File Extensions

- .dat suggests a data file
- .txt suggests a text file

File Pointer: A variable which is associated with the file.

Declaring the File Pointer:

FILE * Variable Name

Example 1: FILE * fpointer; //creates file pointer

Example 2: FILE*fpointer=fopen("data.txt","r"); // creates a file pointer and assigns a file to the variable

Opening a File

Function: fopen()

Format: fopen(“path”,”mode”);

Path: Indicates where to locate the file. Always save the file in the same folder as the C program.

Mode: Indicates the type of action to be applied to the file.

Mode Types:

Text File	
Mode	**Meaning**
r	Open an existing file for reading
w	Create a file for writing. If the file exists it is deleted and a new file created.
a	Open or create a file for writing data to the end of a file

Example of declaring the file pointer and assigning the file pointer to a file

FILE * fpointer;

fpointer = fopen(“notes.txt”,”r”);

NB. If a file was not successfully opened the file pointer variable is set to NULL.

Closing a File

Function: fclose(file pointer):

Example: fclose(fpointer);

Other Functions:

- fscanf(file pointer, data type, variable); **//reads data from file into a variable**
- feof(file pointer); **//End of File**
- fprintf(filevariable,"string",variable list); **//writes data to a file**