Text Files:

Text files are human-readable files that store data in plain text format.

The data in a text file consists of characters from a character set (e.g., ASCII or Unicode) and is usually encoded using a specific character encoding (e.g., UTF-8).

Each character in a text file corresponds to a specific character code, such as 'A', '1', or '@'.

Text files are typically used to store data that is meant to be read and interpreted by humans, such as source code, configuration files, or textual data.

Examples of text file formats include .txt, .c, .cpp, .html, .csv, etc.

In C programming, text files are read and written using functions like fopen, fgets, fputs, fprintf, and fscanf.

Binary Files:

Binary files store data in a raw, binary format that represents the actual internal structure of the data.

The data in a binary file is not meant to be interpreted as characters but as a sequence of bytes.

Binary files can store any type of data, including numbers, images, audio, video, and complex structures.

Binary files are usually used to store data that needs to be directly processed by programs, rather than read or modified by humans.

Examples of binary file formats include .jpg, .mp3, .avi, .dat, etc.

In C programming, binary files are read and written using functions like fread, fwrite, fseek, ftell, etc.