File

Opening a File

- You have to open a file before it can be used

```
FILE *fopen(const char *path,
            const char *mode);
```

path = the name of your file (which can include path information leading to the file's location) which should be a double quoted string or a char array ended by null byte

Modes of Opening a File

mode = whether the file should be opened for reading or writing

r Open an existing file for reading.

w Create a file for writing. If the file already exists, *discard* the current contents.

a Open or create a file for writing at the end of the file—i.e., write operations *append* data to the file.

Writing a File

```
int fprintf(FILE *stream, const char *format,
                                        ...);
```

- The first argument should be a FILE * previously returned by a successful call to fopen.
- fprintf returns the number of characters successfully printed, or a negative number if an error occurs.

Reading a File

```
int fscanf(FILE *stream, const char *format,
                                    ...);
```

- fscanf returns the number of ***fields*** that were successfully scanned in and stored
- fscanf returns EOF if the end of the file was encountered before the desired number of items could be scanned in.

Closing a File

- After a program has finished using a file it should always be closed

```
int fclose(FILE *stream);
```

End of File

```
feof(FILE* stream);
```