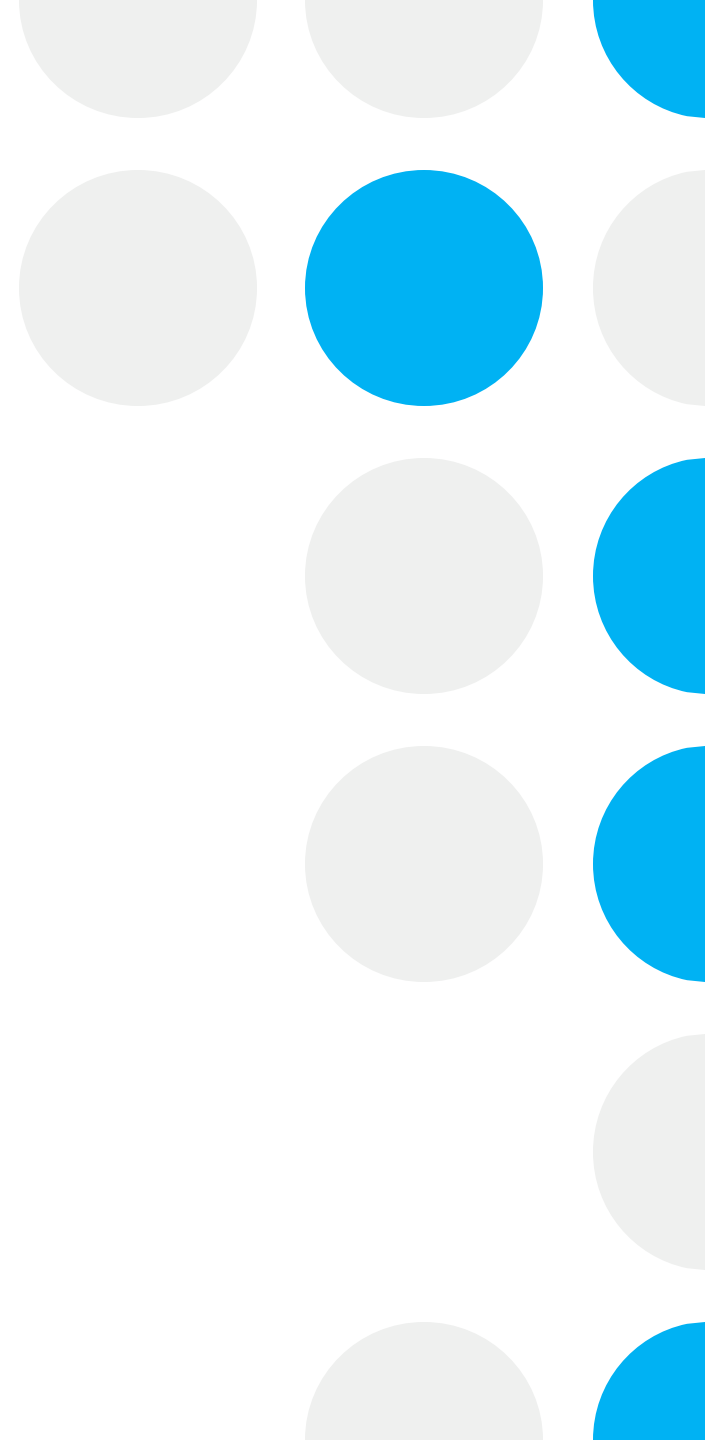# File Handling in C

14.Explain the importance of file handling in C. Discuss how to perform file operations like opening, closing, reading, and writing files.

Importance of File Handling in C

➢ File handling in C is crucial for:

➢ **Persisting data**: It allows programs to store data permanently or temporarily on a disk, making data accessible even after the program ends.

➢ **Data management**: It enables reading, writing, and manipulating data stored in external files, facilitating tasks like logging, configuration management, and data processing.

➢ File Operations in C

➢ **Opening a File (fopen)**:

➢ **Syntax**: FILE *fopen(const char *filename, const char *mode);

➢ You open a file in specific modes like "r" (read), "w" (write), and "a" (append).

➢ Example:

➢ FILE *file = fopen("data.txt", "r");

➢ **Reading from a File**:

➢ **fgetc()**: Reads one character.

➢ **fgets()**: Reads a string up to a specified length.

➢ **fread()**: Reads binary data.

➢ Example:

➢ char ch = fgetc(file);

➢ **Writing to a File**:

➢ **fputc()**: Writes one character.

➢ **fputs()**: Writes a string.

➢ **fwrite()**: Writes binary data.

➢ Example:

➢ fputc('A', file);

➢ **Closing a File (fclose)**:

➢ Always close the file after completing operations to free resources.

➢ **Syntax**: int fclose(FILE *fp);

➢ Example:

➢ fclose(file);