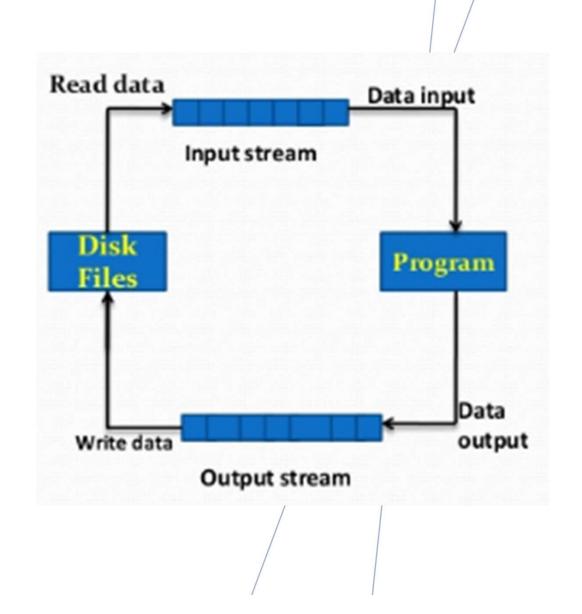
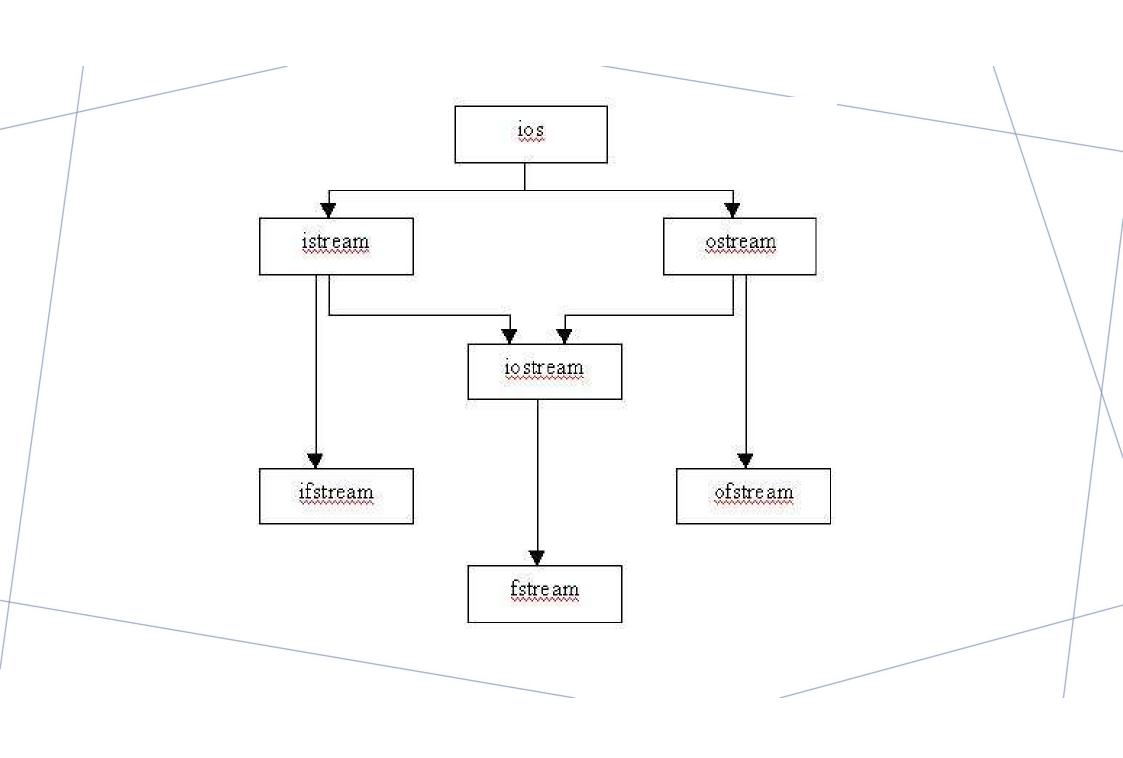
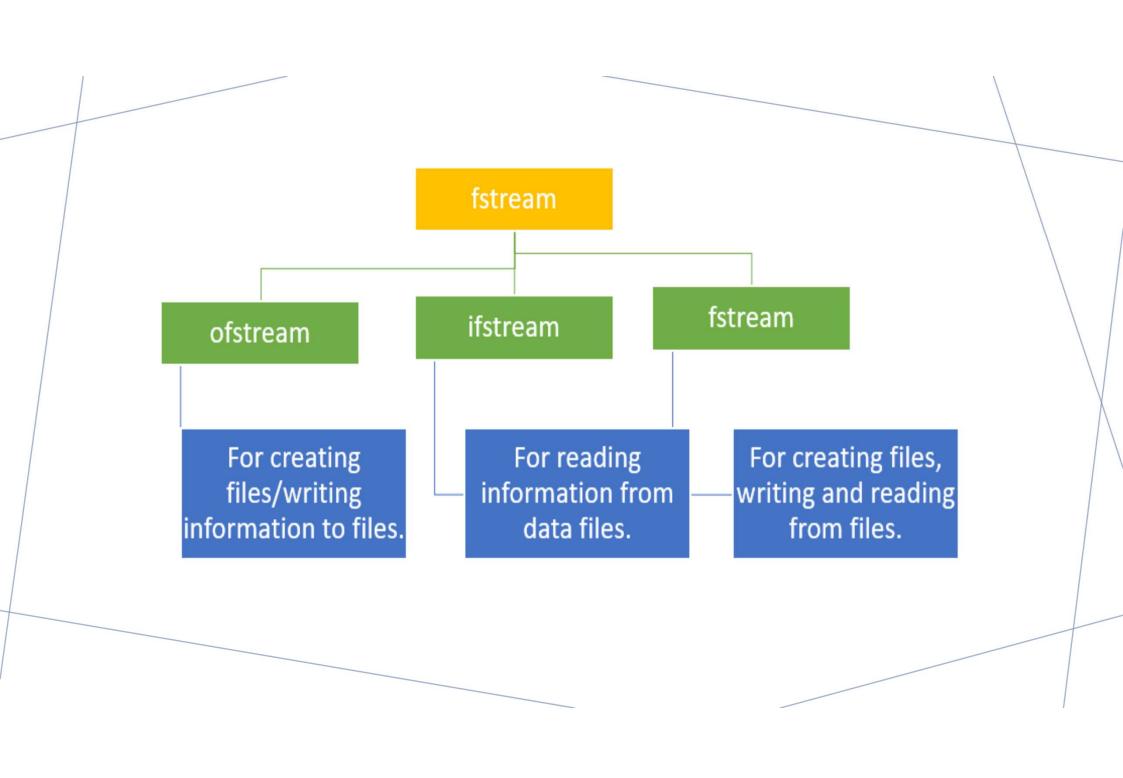
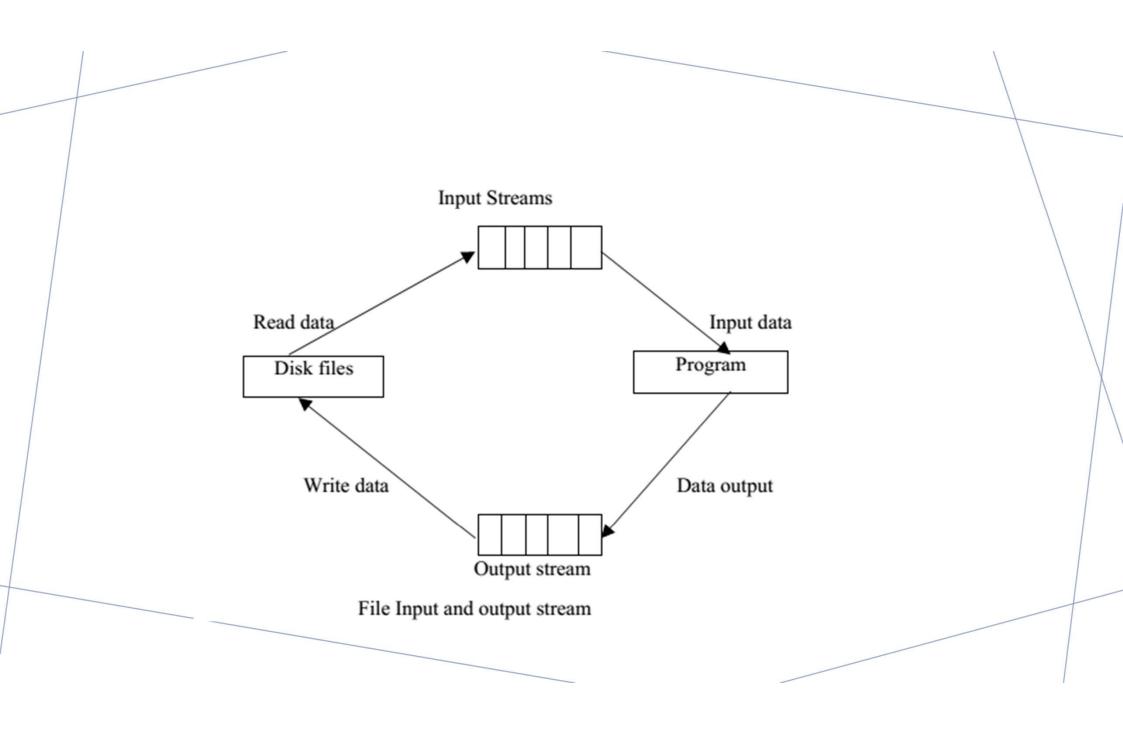
WORKING WITH FILES

- In C++, files are mainly dealt by using three classes fstream, ifstream, ofstream available in fstream headerfile.
- ofstream: Stream class to write on files
- ifstream: Stream class to read from files
- fstream: Stream class to both read and write from/to files.











- To open the file for read or write operation. We can open file by
- 1. passing file name in constructor at the time of object creation
- 2. using the open method

OPEN A FILE

Open File by using constructor

```
ifstream (const char* filename, ios_base::openmode mode = ios_base::in); ifstream fin(filename, openmode) by default openmode = ios::in ifstream fin("filename");
```

Open File by using open method

Calling of default constructor ifstream fin; fin.open(filename, openmode) fin.open("filename");

DEFAULT OPEN MODE

ifstream ios::in

ofstream ios::out

fstream ios::in | ios::out

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Member Constant	Stands For	Access
in *	input	File open for reading: the internal stream buffer supports input operations.
out	output	File open for writing: the internal stream buffer supports output operations.
binary	binary	Operations are performed in binary mode rather than text.
ate	at end	The output position starts at the end of the file.
арр	append	All output operations happen at the end of the file, appending to its existing contents.
trunc	truncate	Any contents that existed in the file before it is open are discarded.

NOTE

- Opening a file in ios::out mode, also opens the file in ios::trunc mode by default.
- Both ios::app and ios::ate mode takes us to the end of file when opened. The difference between the two parameters are ios::app allows to add data to end of file only, while ios::ate allows us to add or modify existing data in the file.
- Creating a stream using ifstream implies input and creating a stream using ofstream implies output. So in these cases, it is not necessary to provide the mode parameters.
- The fstream class does not provide mode by default and therefore we must provide the mode explicitly while using object of the class fstream.
- The mode can combine two or more parameters using bitwise OR
 - fout.open("data.txt", ios::app | ios::nocreate)
 - This opens the file in append mode but fails if file does not exist.