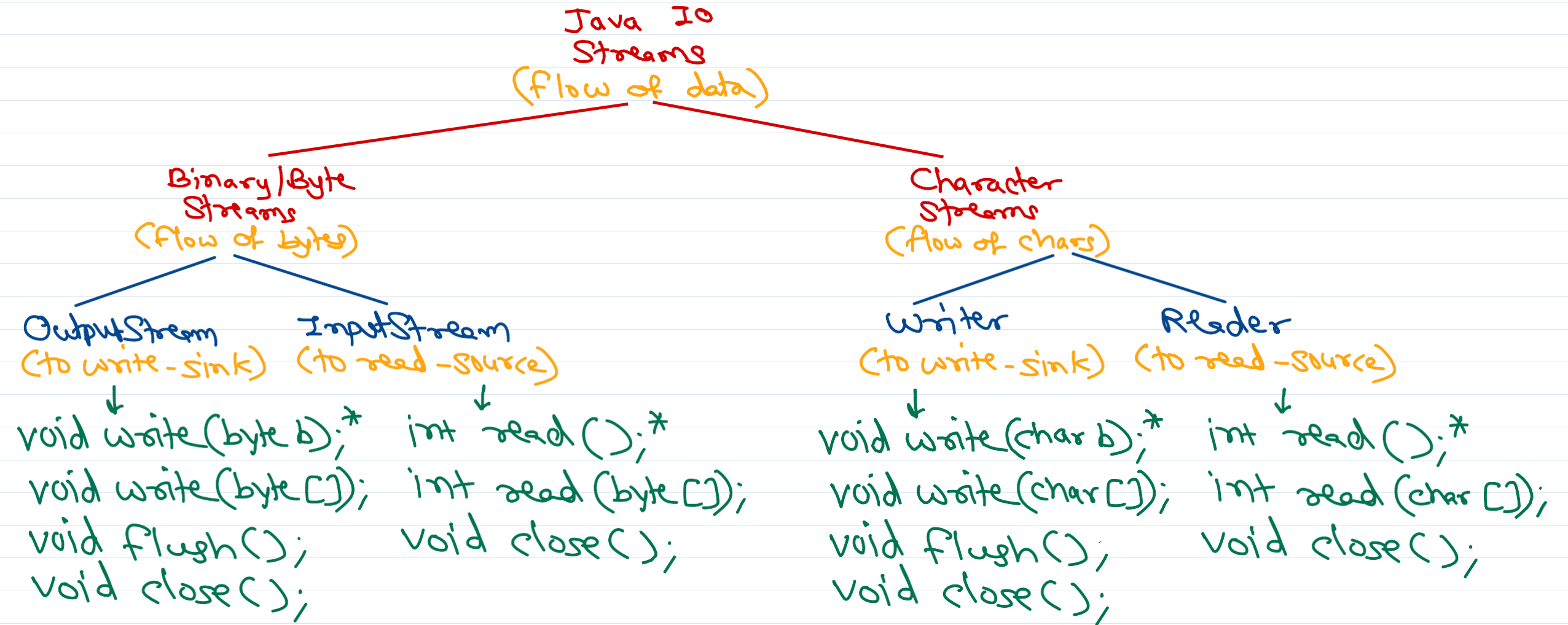
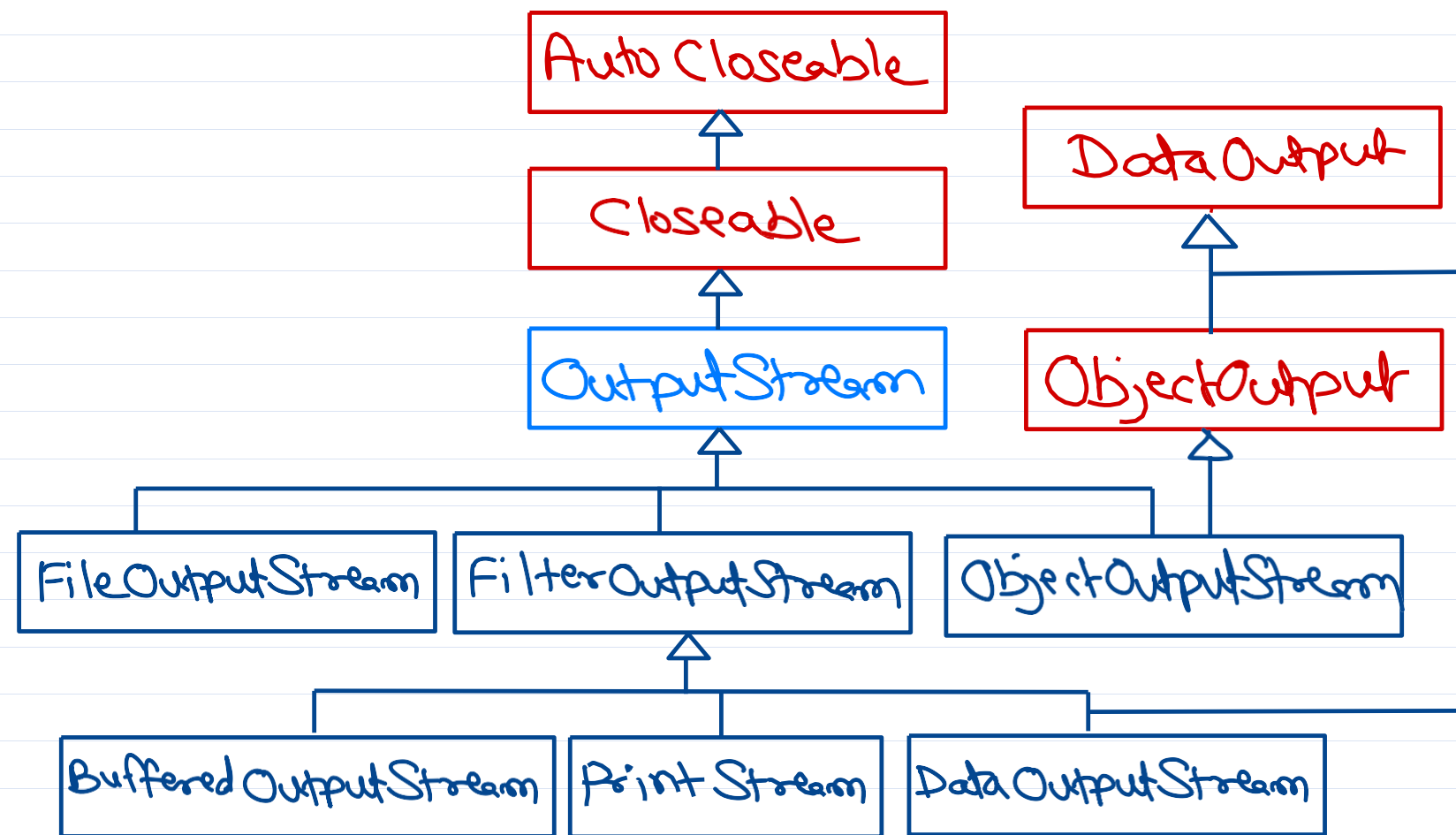


# Java IO Framework



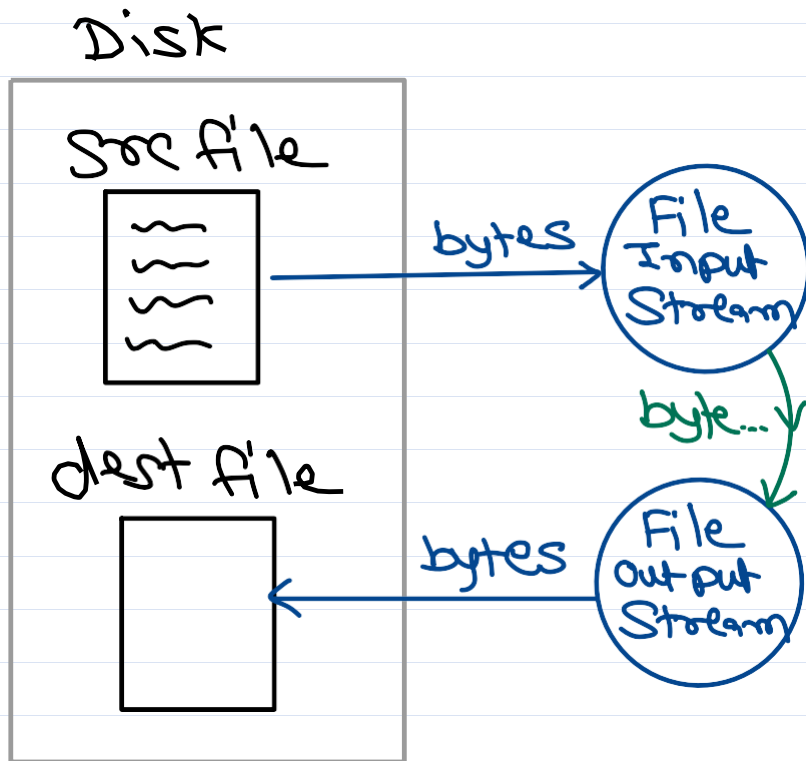
# OutputStream hierarchy



- ① File OutputStream  
- write files on disk.
- ② Data OutputStream  
- primitive types → bytes
- ③ Object OutputStream  
- java object → bytes
- ④ PrintStream  
- primitive types → text  
- formatted output
- ⑤ Buffered OutputStream  
- holds data in memory before writing to underlying stream to improve IO efficiency.



# File Copy Program



// input src & dest file paths from user.

// create FileInputStream obj - src file.

```
FileInputStream fin = new FIS(srcPath);
```

// create FileOutputStream obj - dest file.

```
FileOutputStream fout = new FOS(destPath);
```

// read a byte from in stream

```
while((b = fin.read()) != -1) {
```

// write that byte to out stream

```
    fout.write(b);
```

```
} // repeat above two steps until end of file
```

// close in & out stream

```
    fout.close();
```

```
    fin.close();
```

