

Java I/O Stream API

byte stream

character stream

O ↗
↓ ↘

InputStream

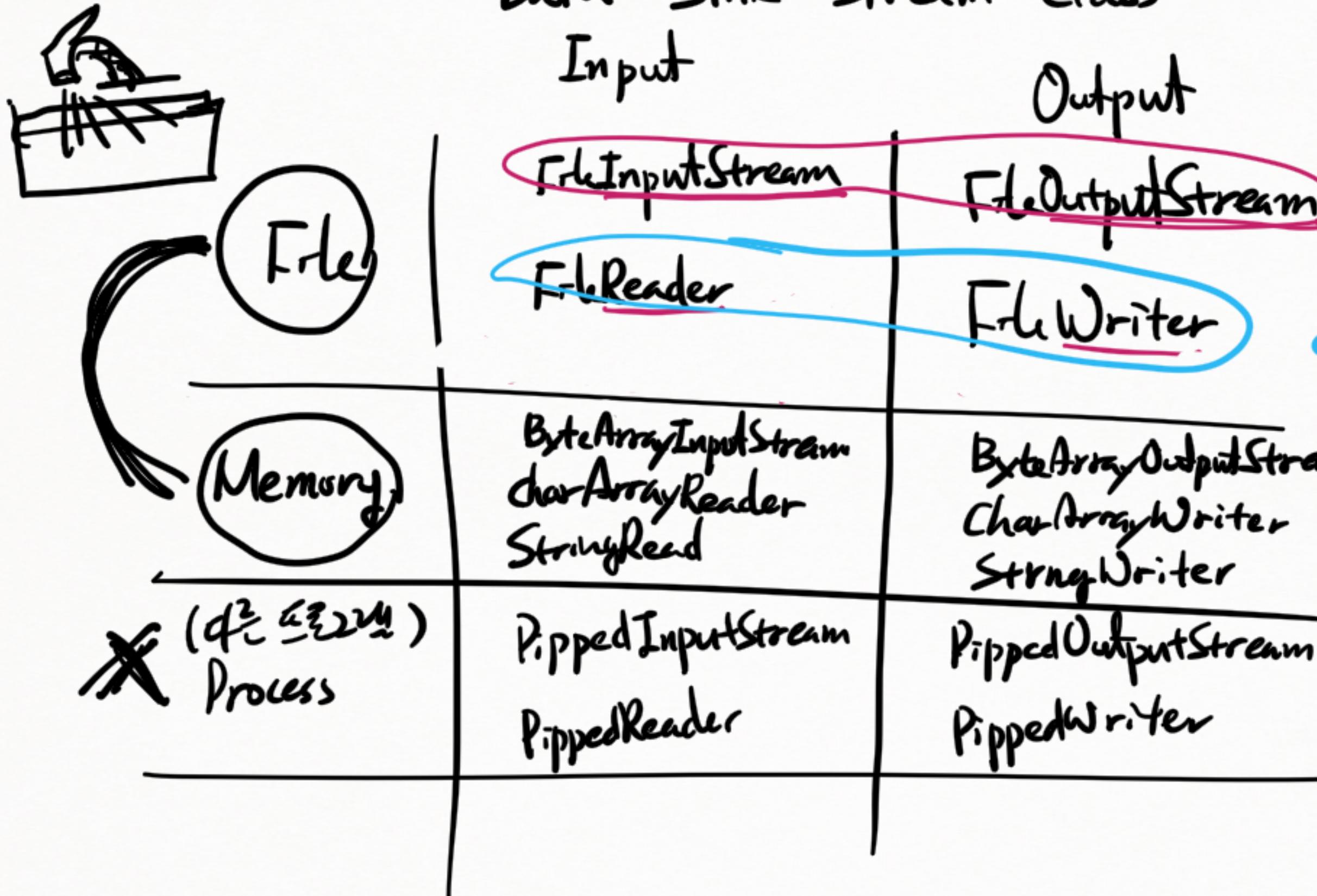
Reader

↗ I ↗
↓ ↘

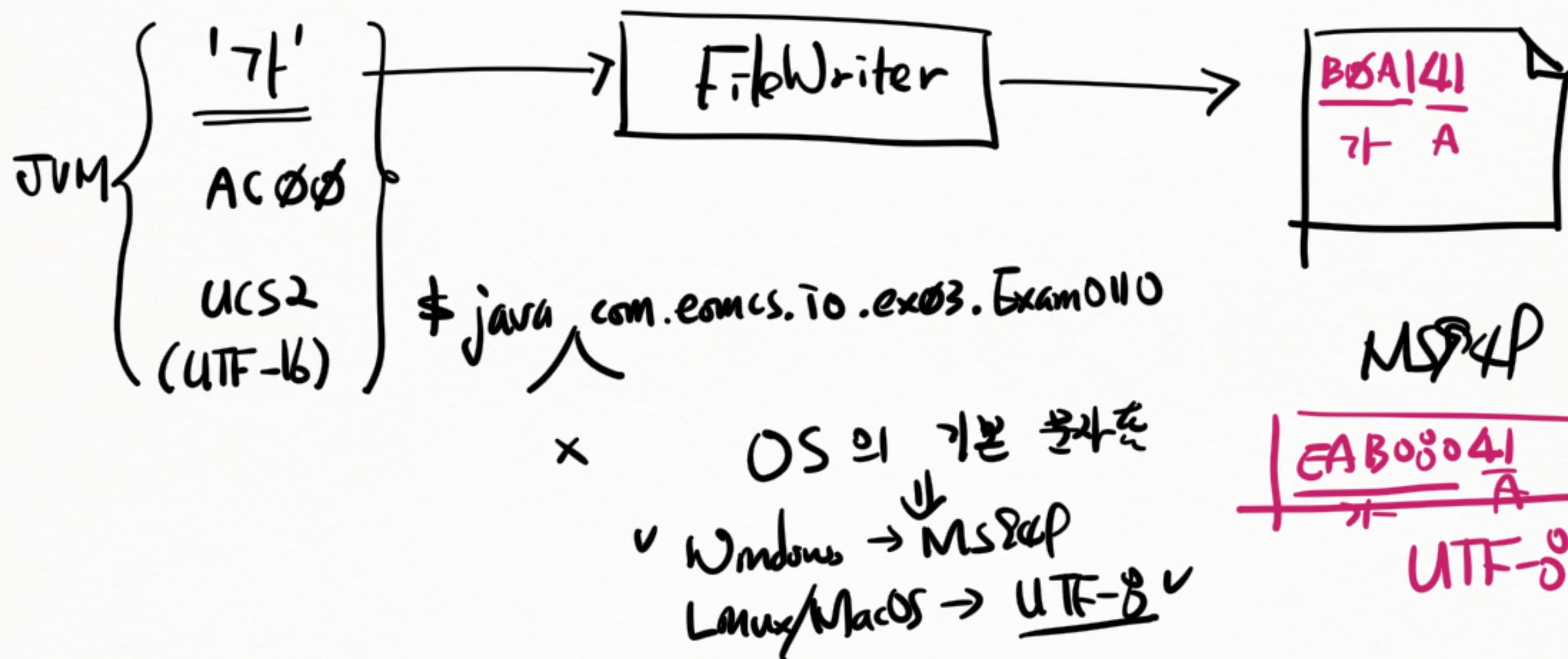
OutputStream

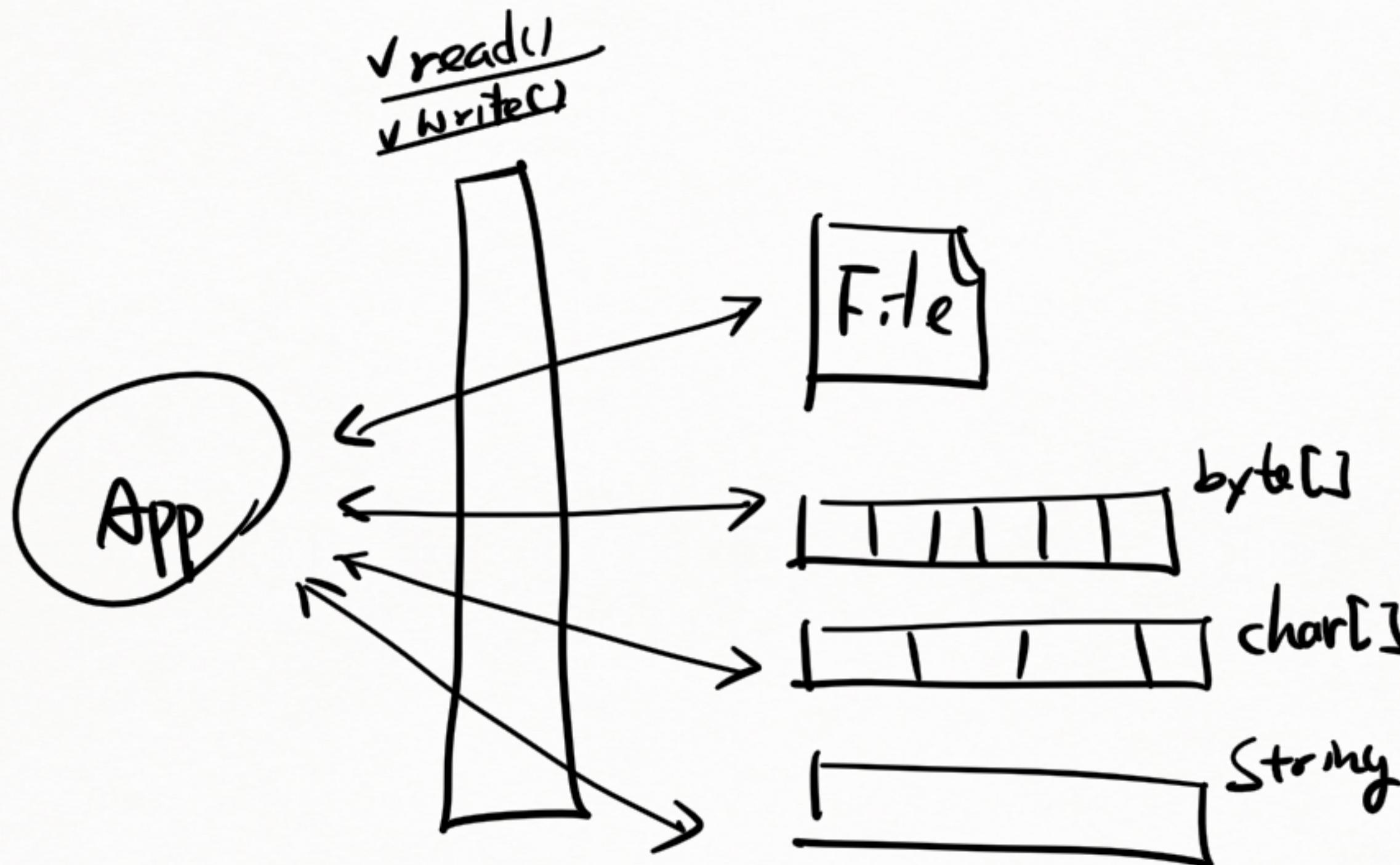
Writer

Data Sink Stream Class



ex) .grf - jpg - ppt
.avi - pdf
ex) .csv .html .java
.js .css .txt





MS949 : 41 42 B0 A1 B0 A2

UTF-8 : 41 42 EA B0 80 EA B0 81

UTF-16BE : 0041 0042 AC00 AC01

UTF-16LE : 4100 4200 00AC 01AC

JVM
↓

char : UCS2 (UTF-16BE)

0041 0042 AC00 AC01
A B 𠂇 𠂇

new String(byte[] , offset , length , charset)

File/Network

✗ MS949
✗ EUC-KR
UTF-8



DBMS
↓
✗

JVM



UCS2

"

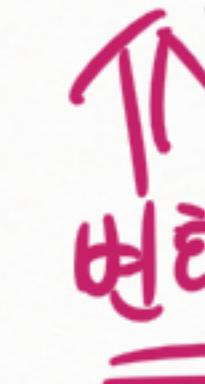
UTF-16BE

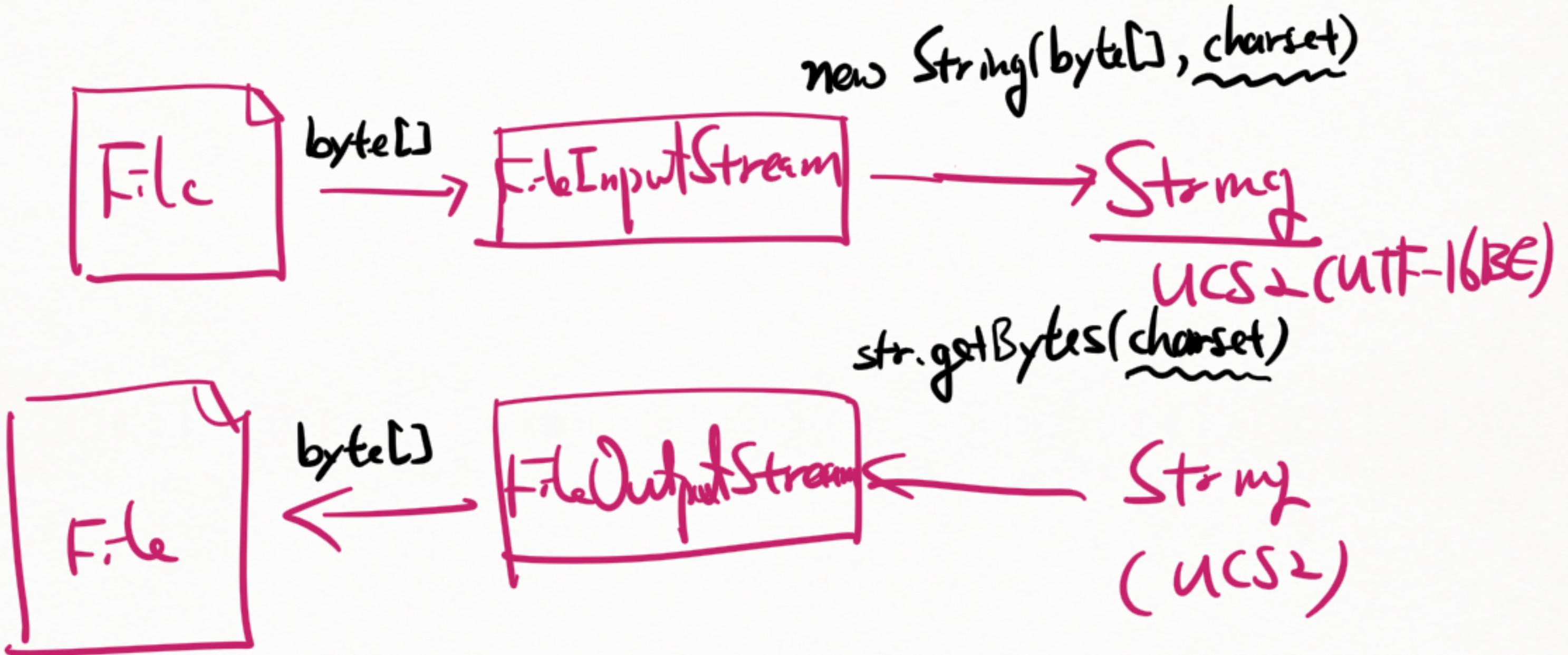
"

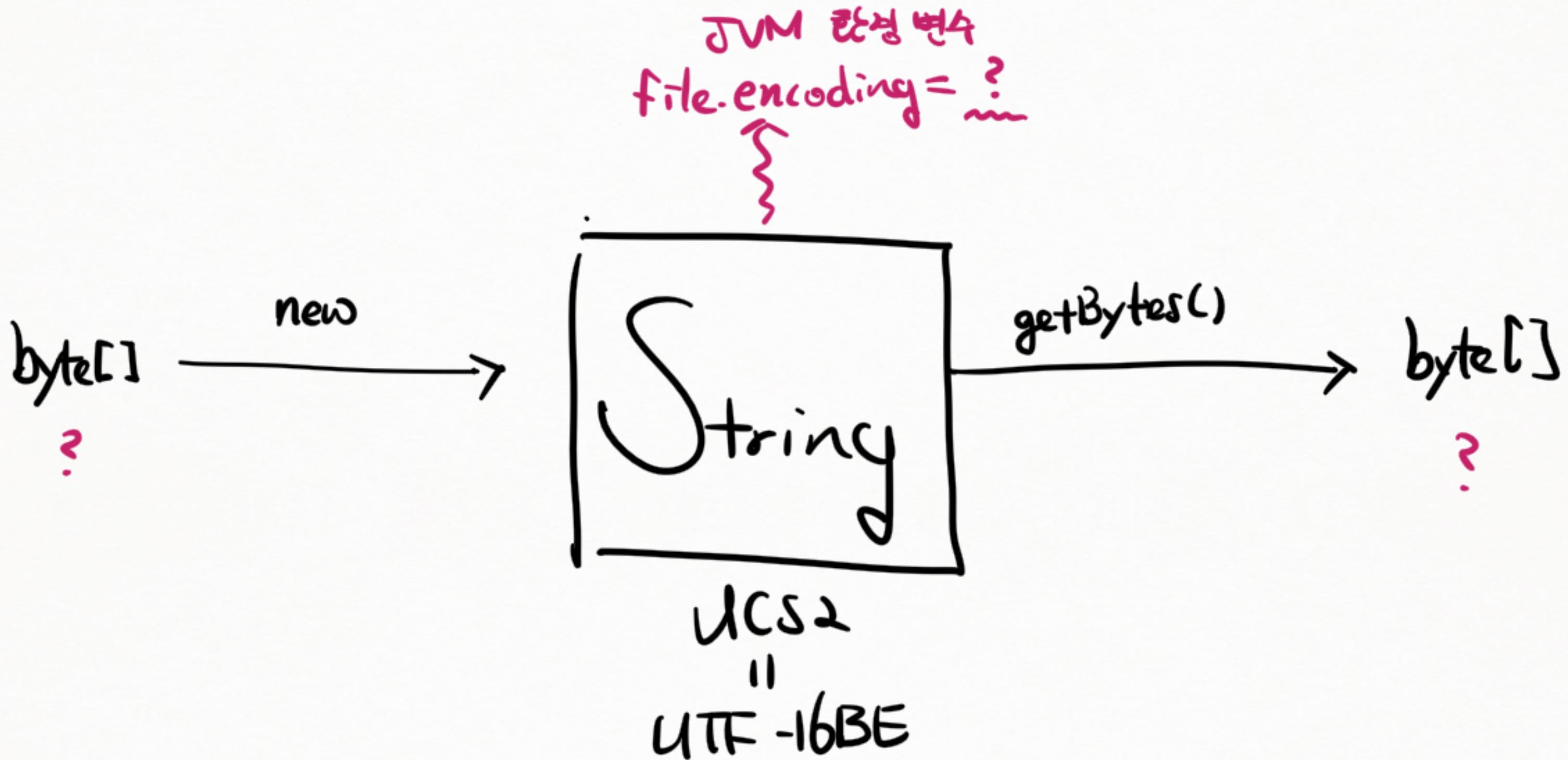
char c;
~~~ 'A' → 0041  
'가' → Aced

File/Network

MSP430  
✗  
EUC-KR  
**UTF-8**







$$E \Rightarrow \underline{3017} - \underline{3030} \Rightarrow \text{값 } \boxed{?}$$

2×XX

중식

34XX - 30XX 헌식

$$\begin{array}{r} 411X - 30XX - 30XX & 190 \text{ 만원} \\ 9999 + 30XX - 12XX - 30XX & 13 \end{array}$$

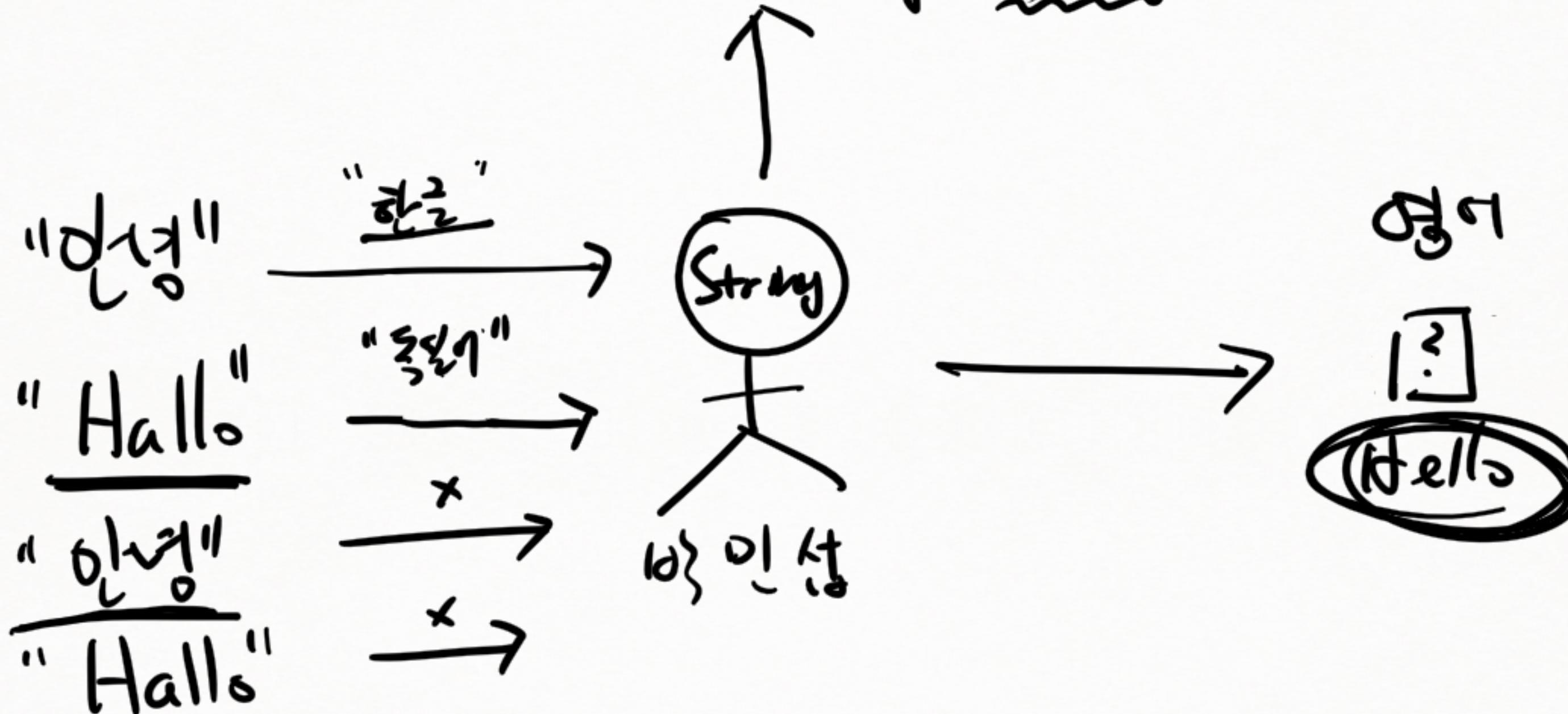
✓ A  $\Rightarrow \begin{array}{r} 2134 \\ 3418 - 3012 \\ \hline 12 \end{array}$

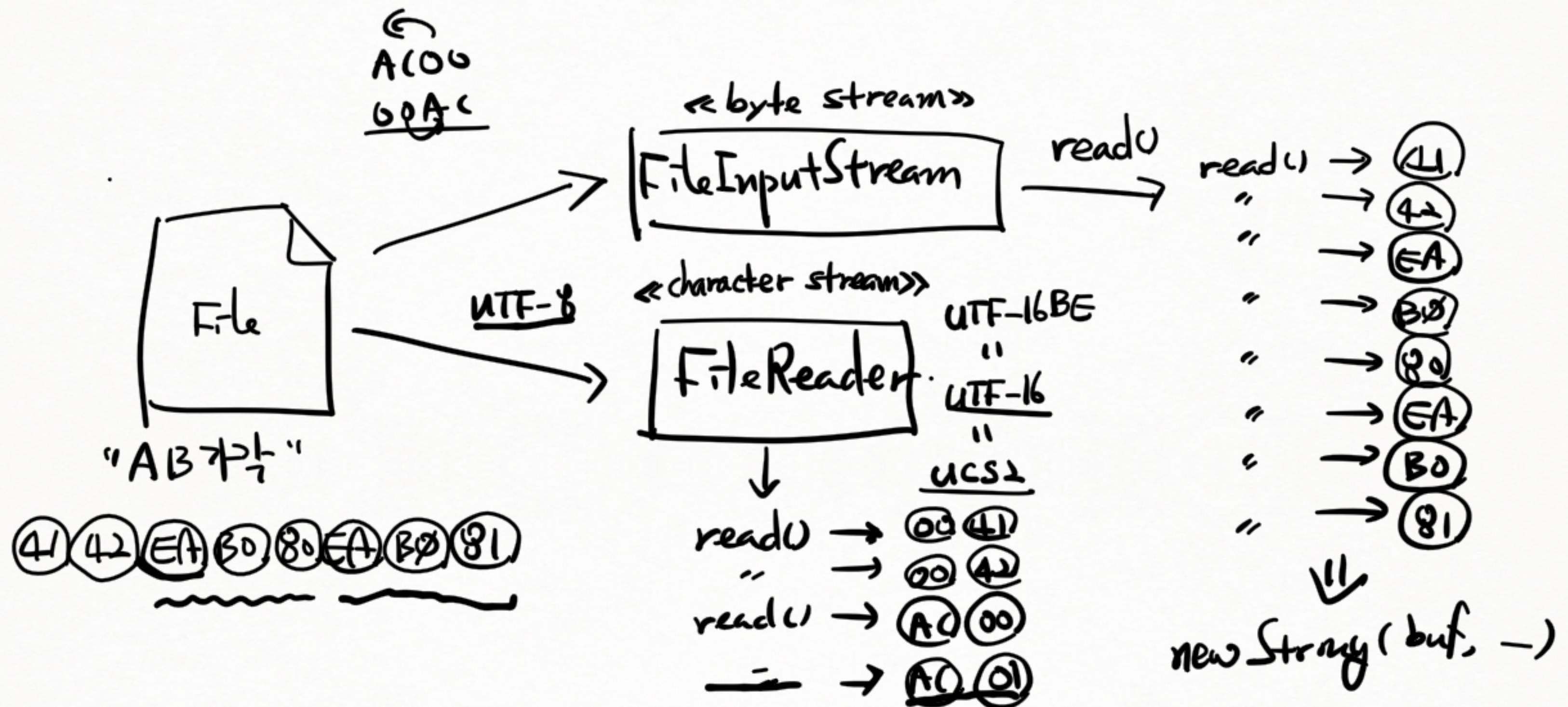
✓ B  $\Rightarrow \begin{array}{r} 3418 - 3011 \\ 4119 - 3011 \\ \hline 12 \end{array}$

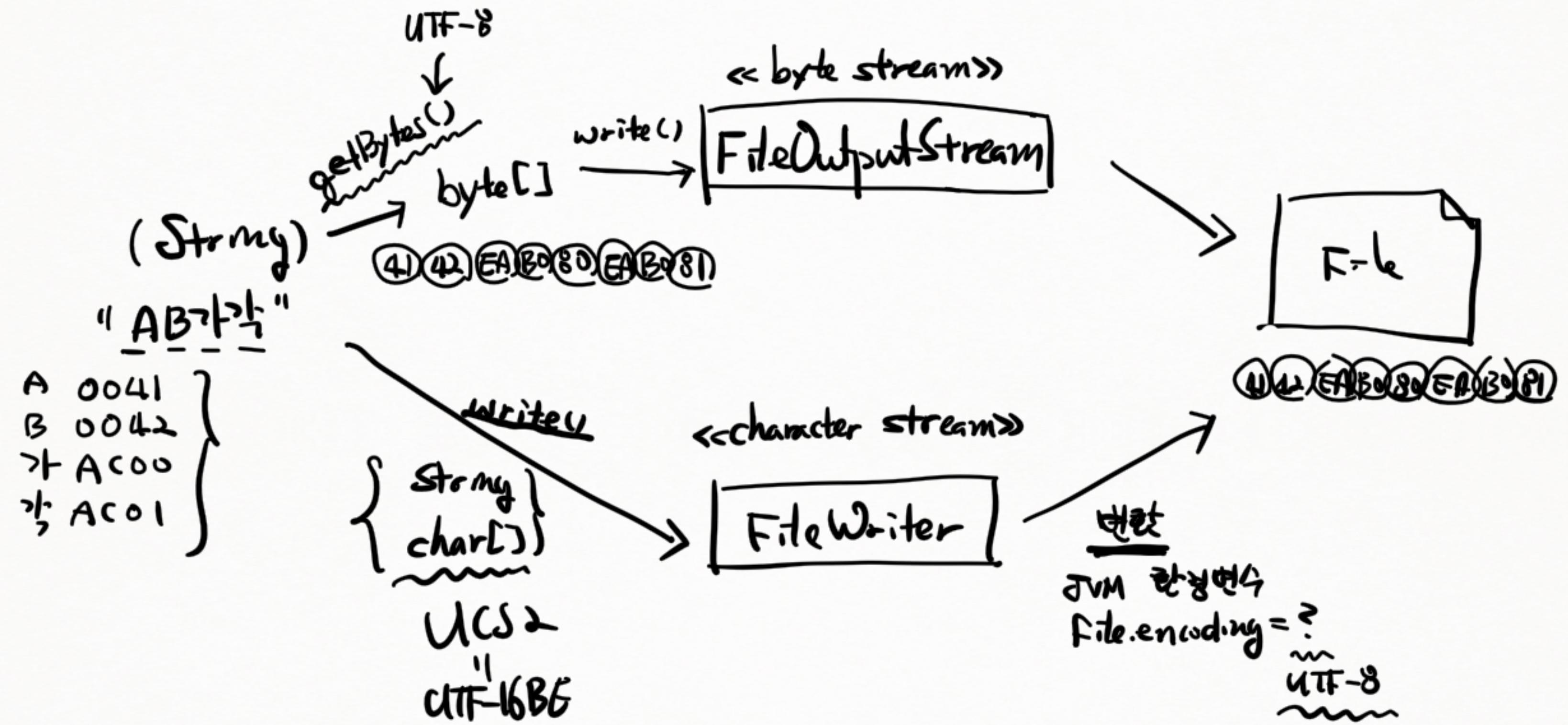
✓ C  $\Rightarrow \begin{array}{r} 4119 - 3011 \\ 9999 - 3011 \\ \hline 12 \end{array}$

D  $\Rightarrow \begin{array}{r} 4119 - 3011 \\ \hline 12 \end{array}$

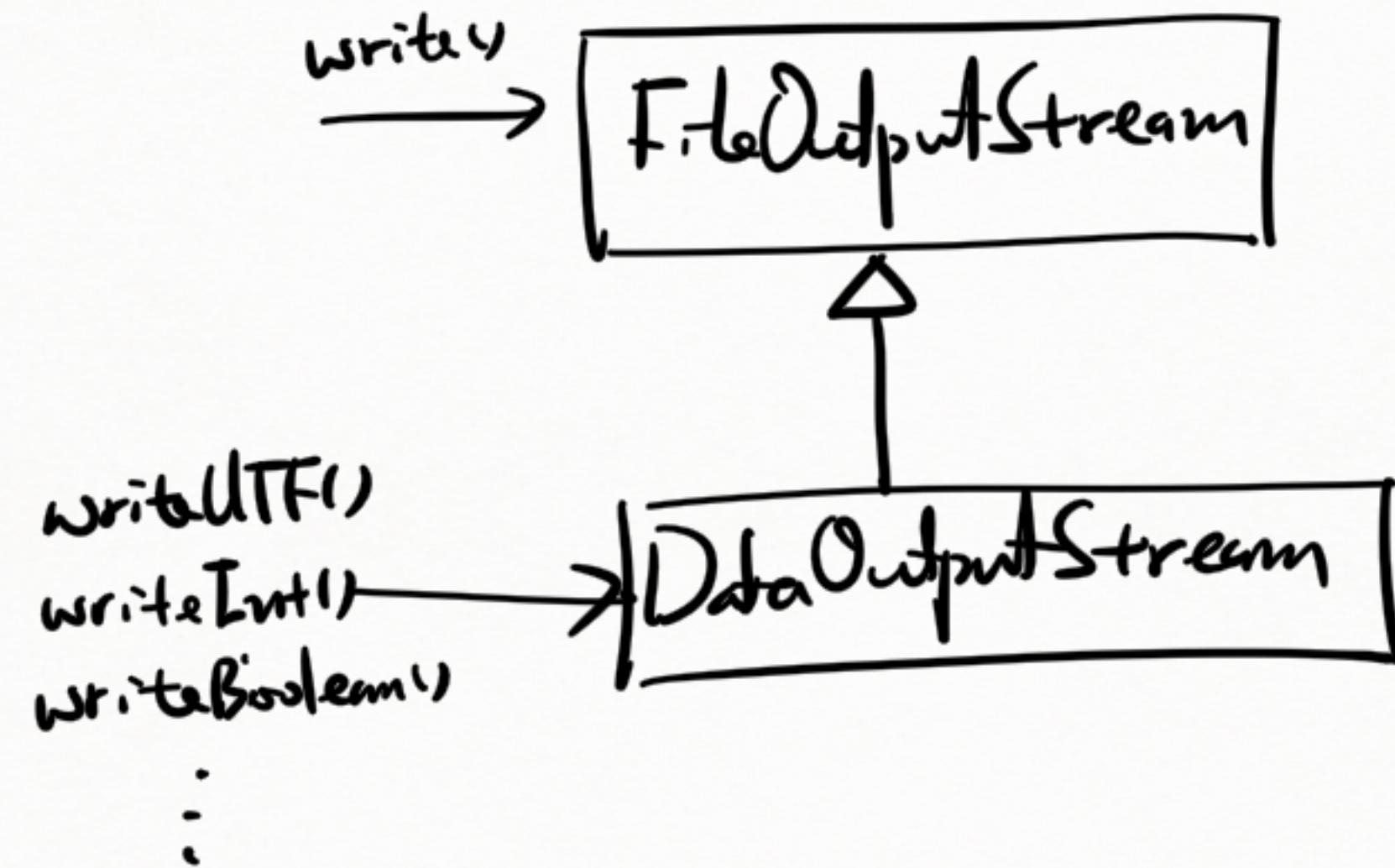
file.encoding = UTF-8

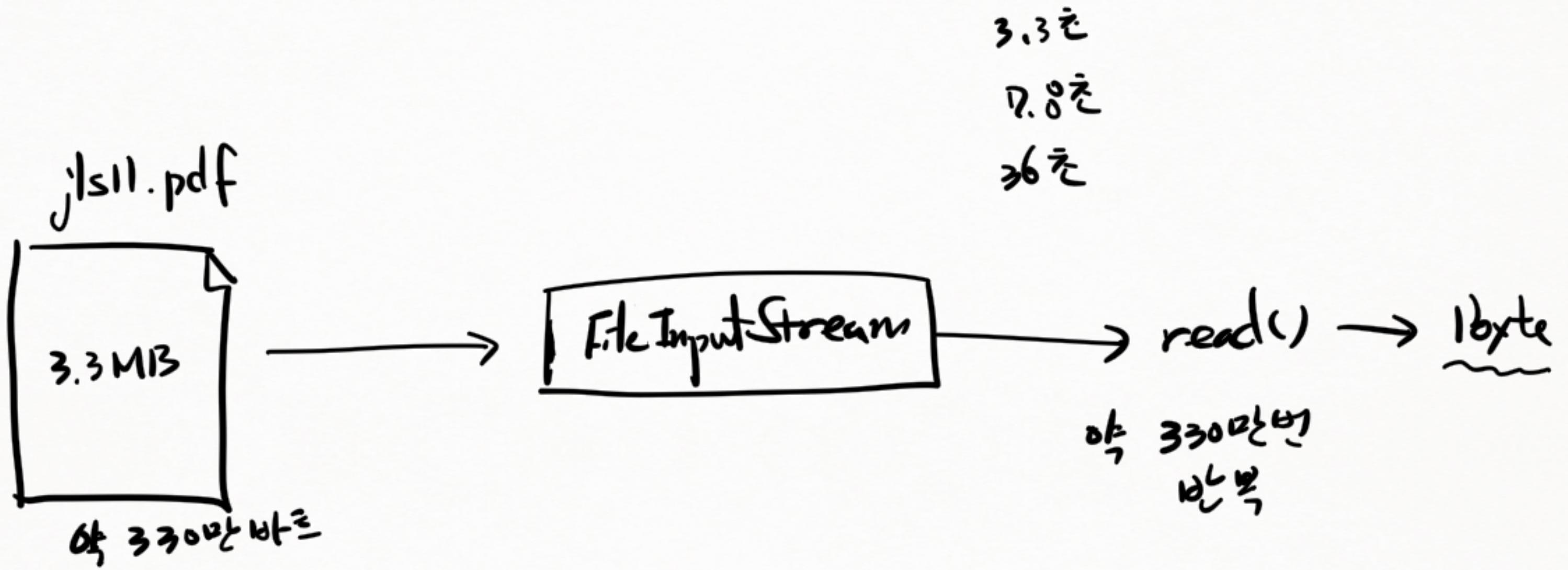


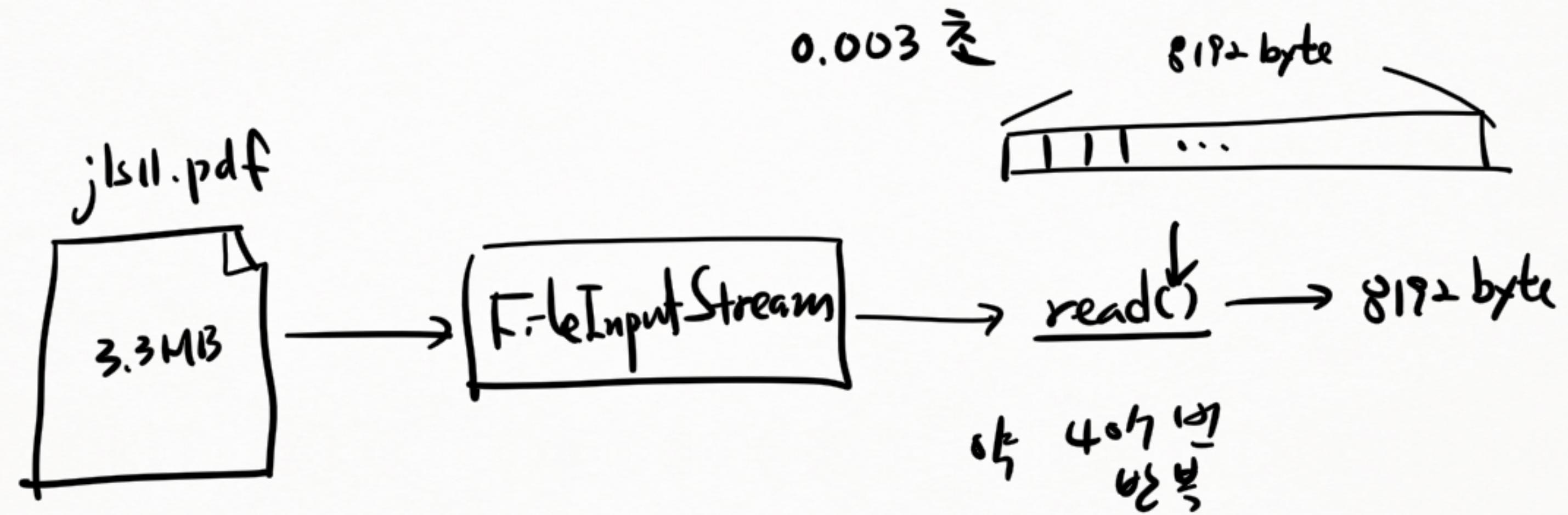


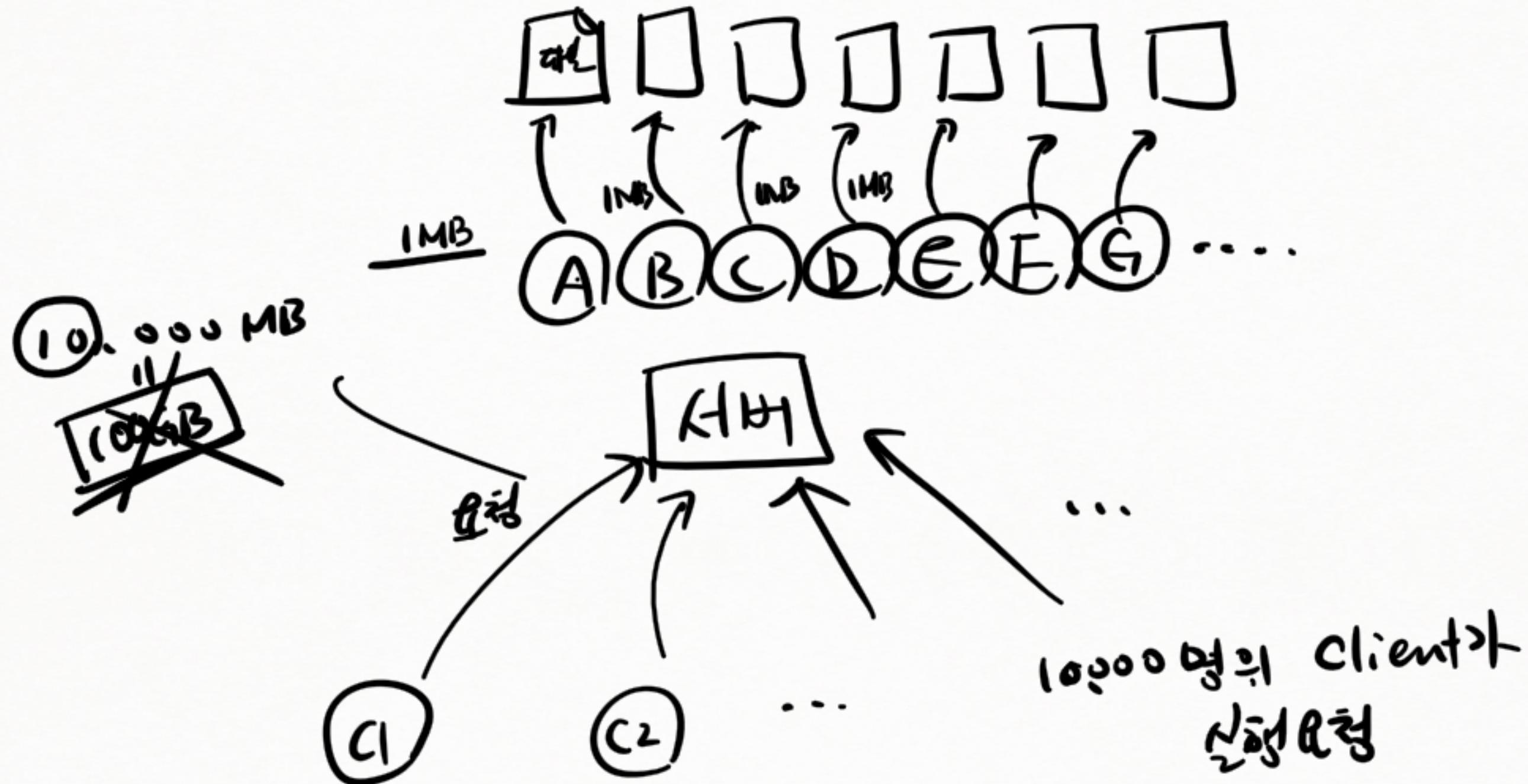


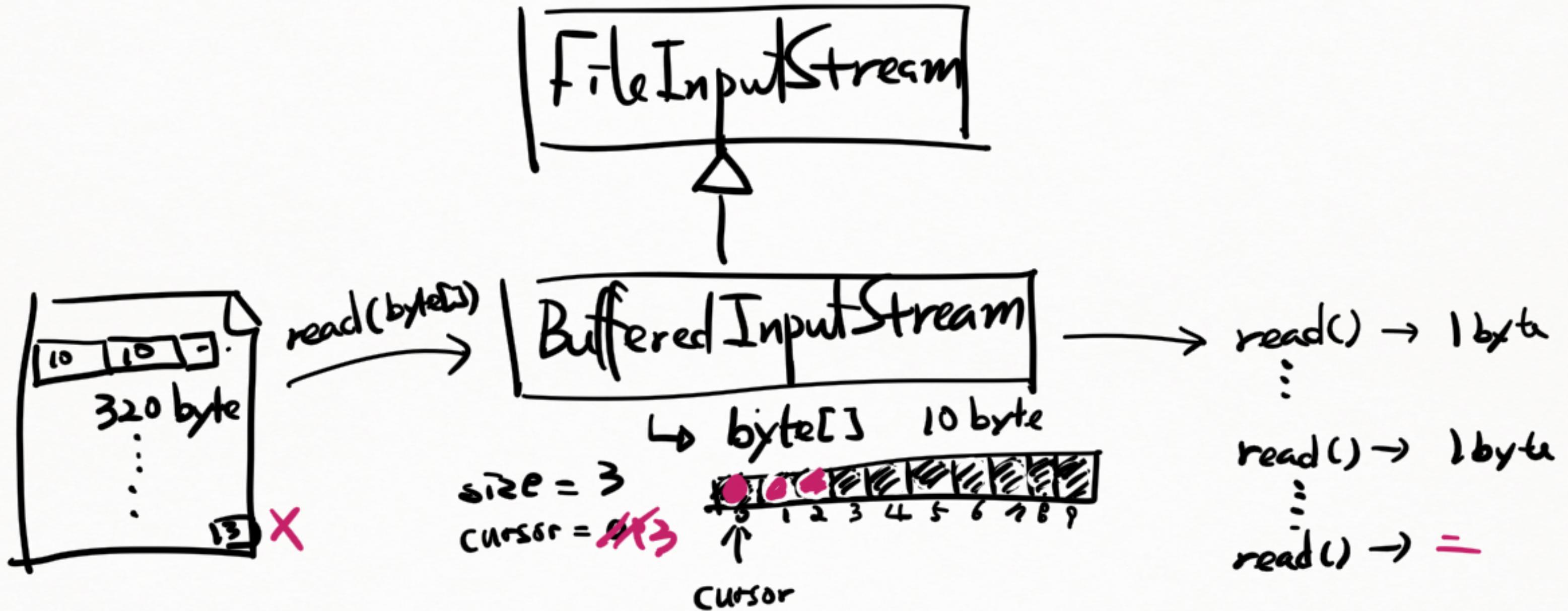


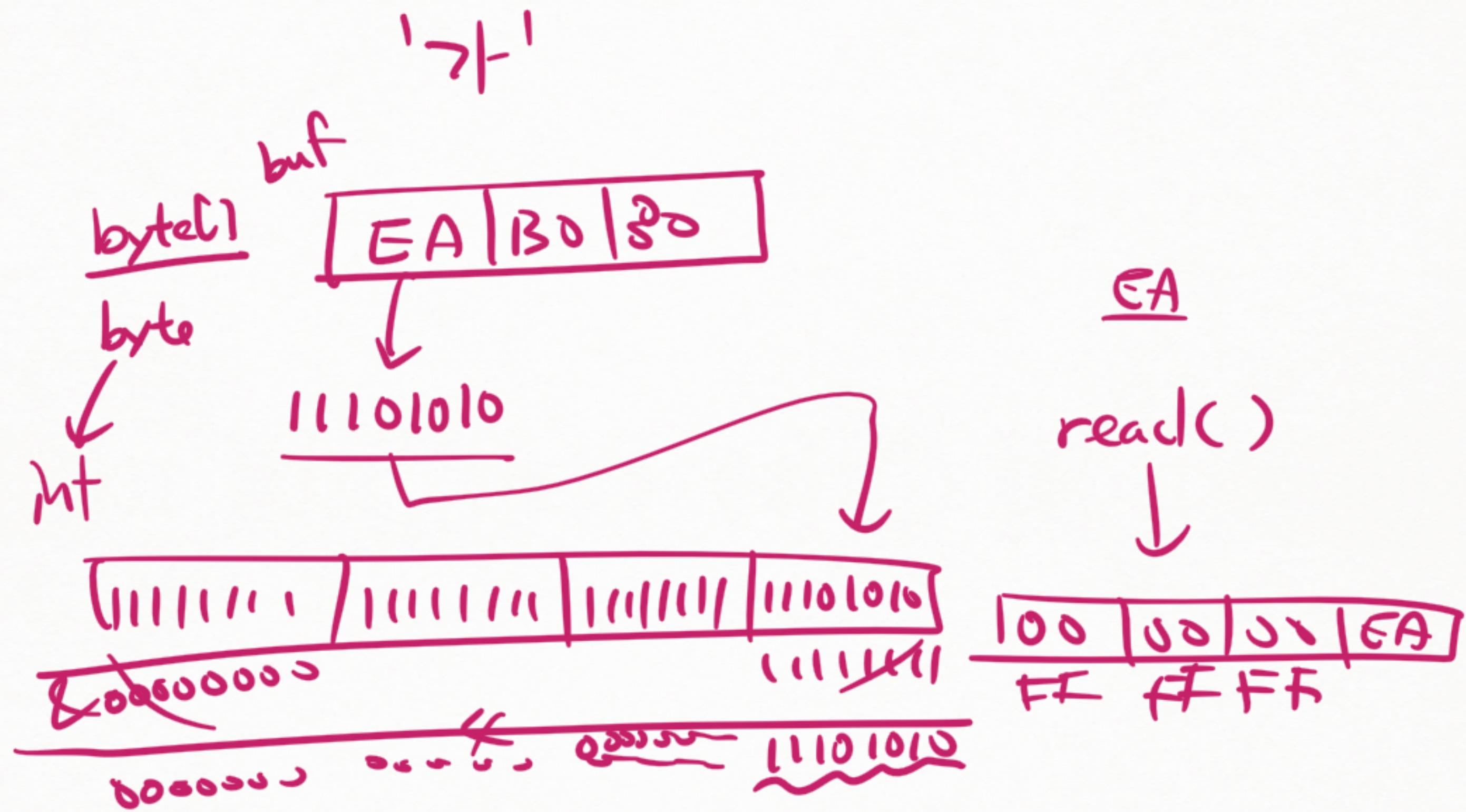


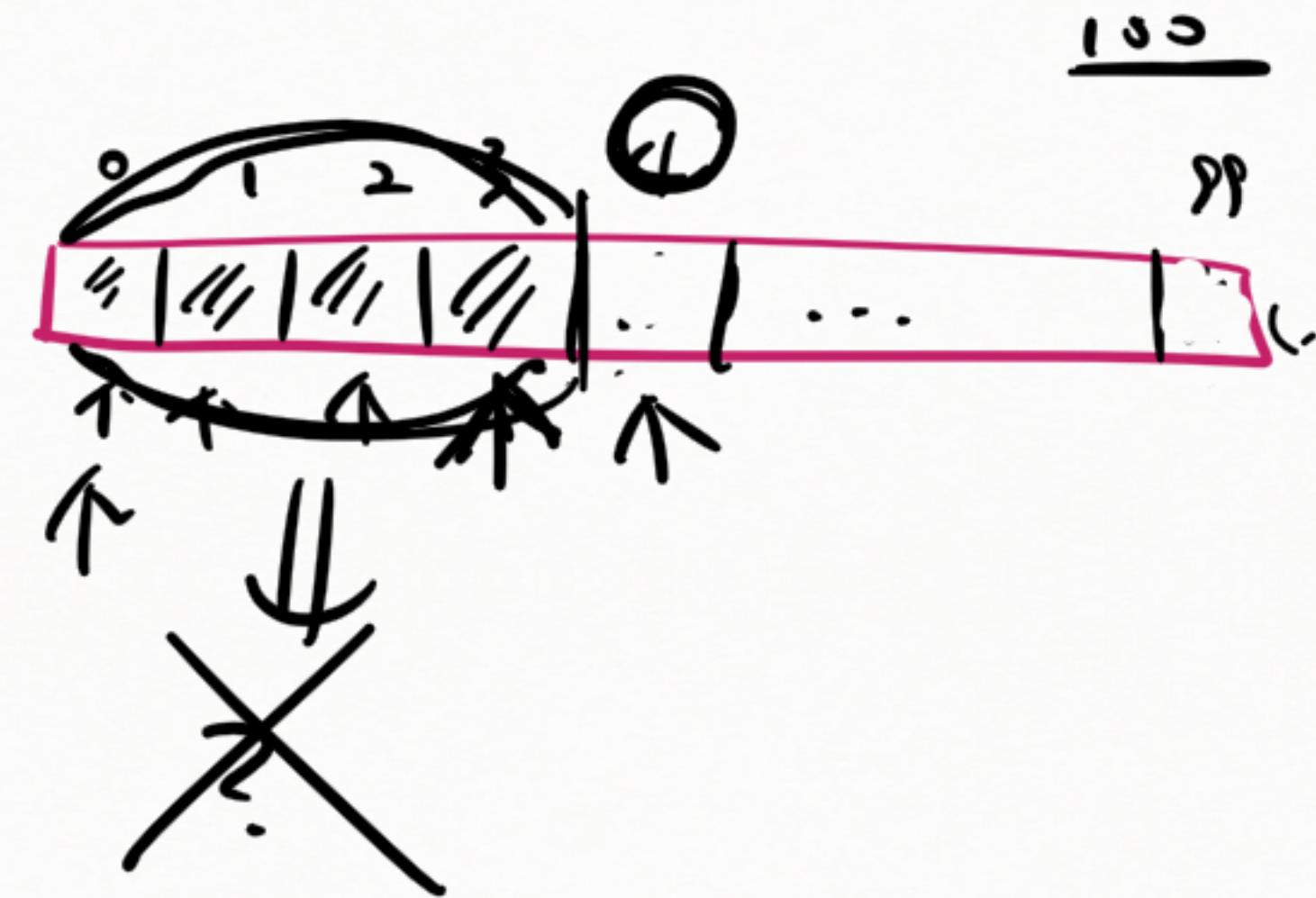


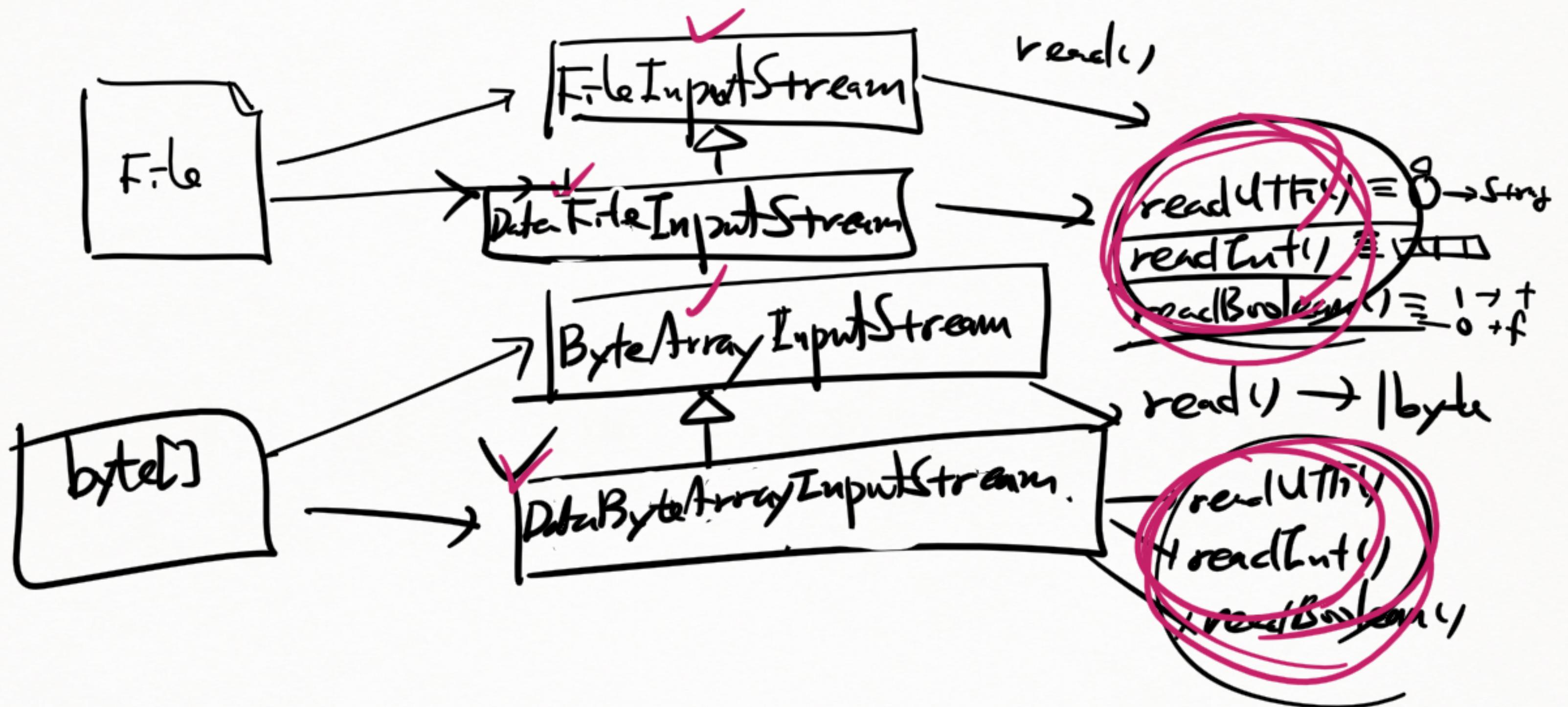


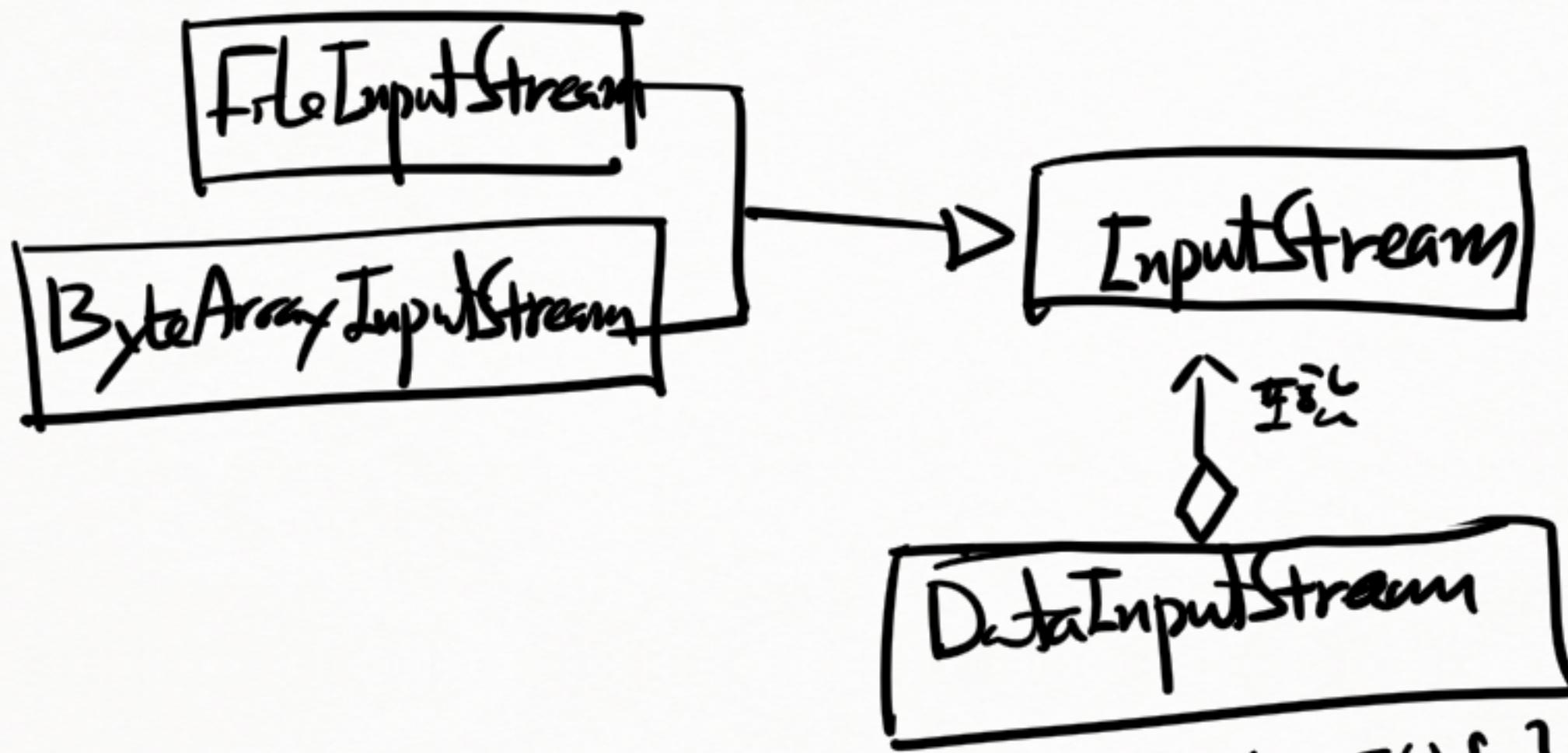






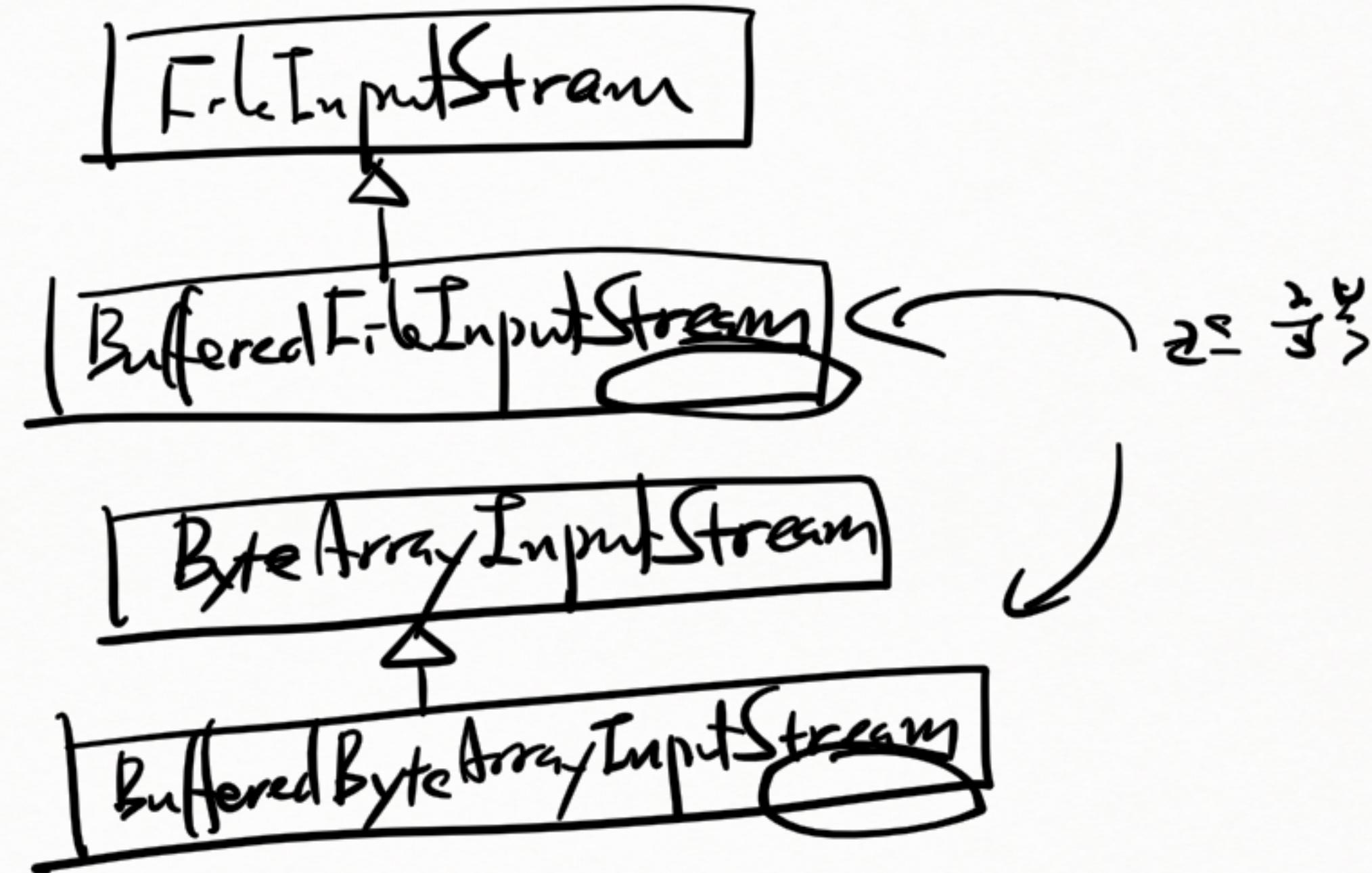


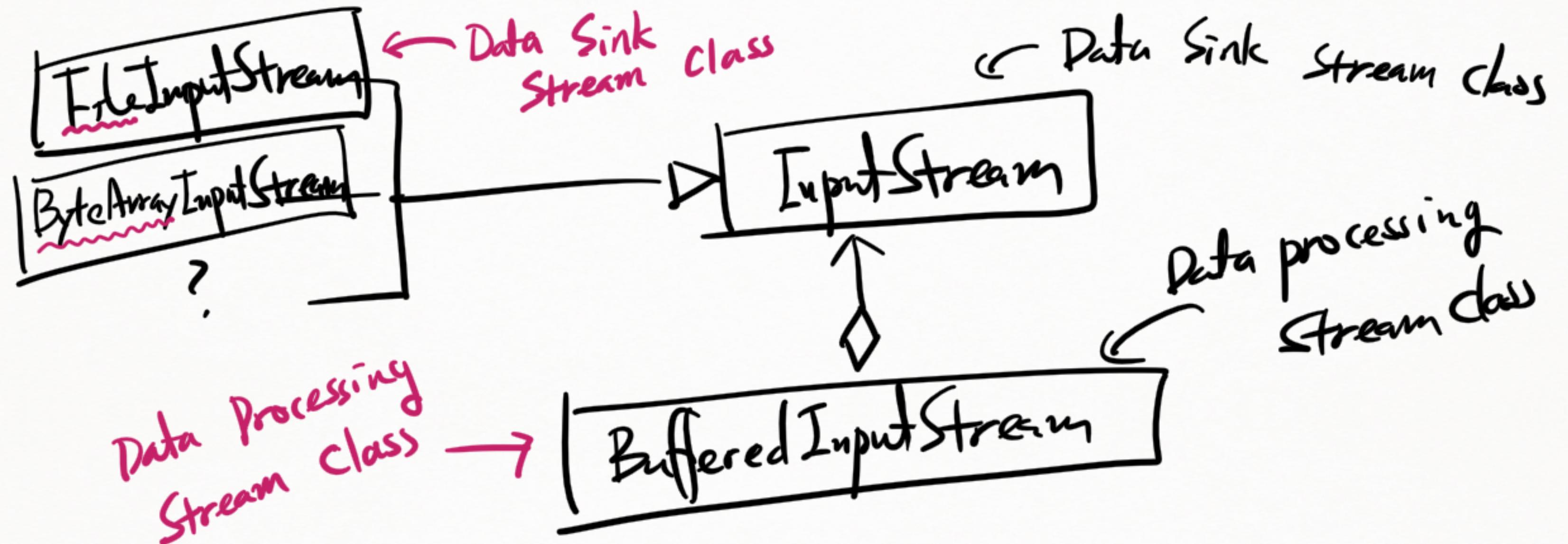




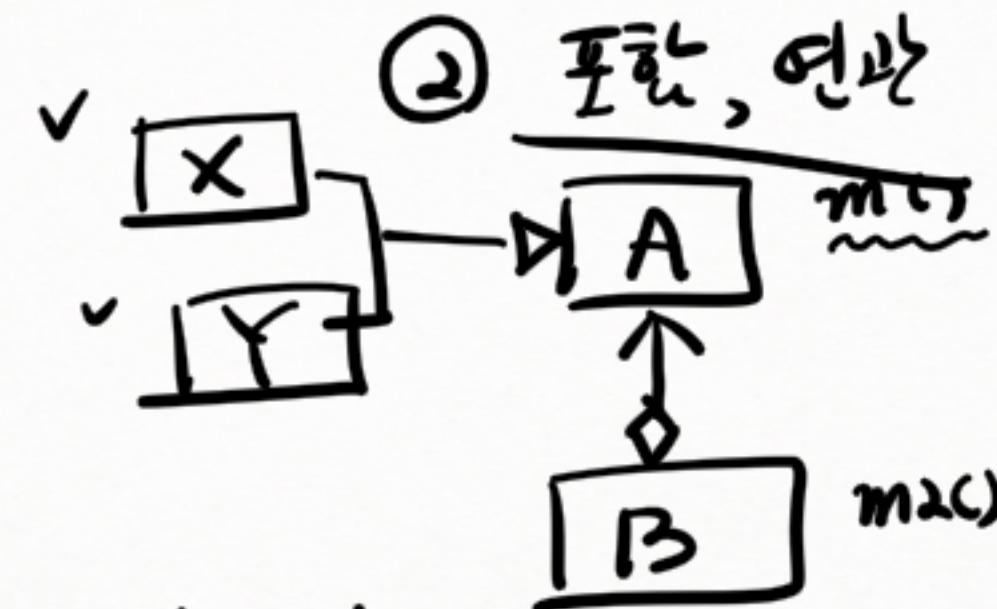
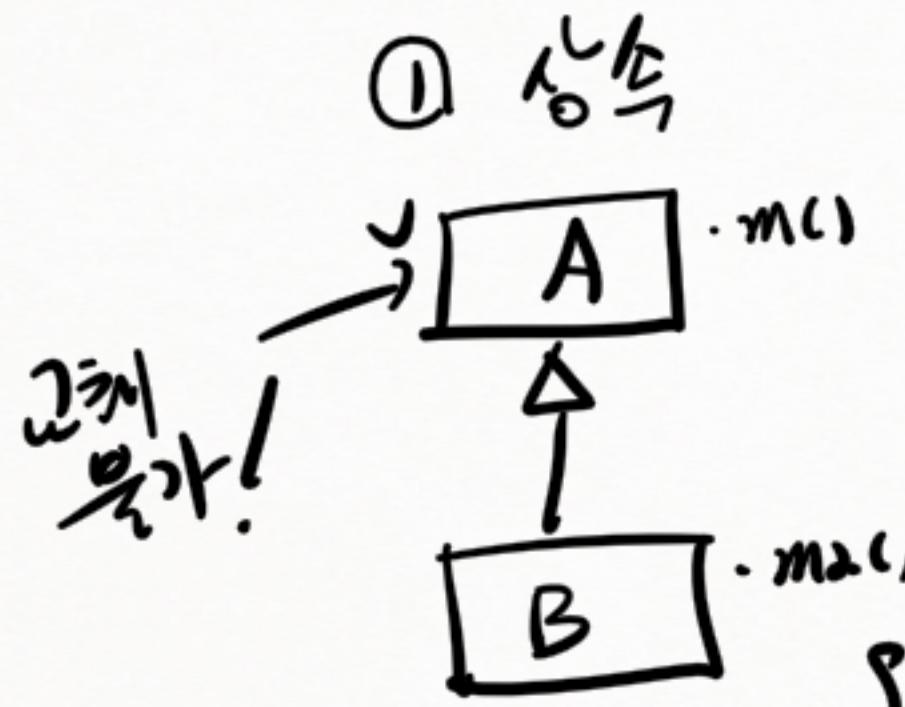
장식구 (Decorator)

- readUTF() {-}
- readInt() {-}
- readLong() {-}
- readBoolean() {-}





## 기능학장



- }    ✓ 중복 처리화  
      ✓ 재사용  
      ✓ ① 초기화-용이

FileInputStream

+ 읽기 속도 높음

DataInputStream

{  
· 문자열  
· 자바 기본 타입  
· 배열  
· 파일  
· 헤더  
}  
· readUTF()  
· readInt()  
· readLong()  
· readBoolean()

BufferedInputStream

{  
· byte[] buf = -  
· int size  
· int cursor

Data Sink  
Stream class

레고블록

생성자에 다른 InputStream을  
받지 않는데  
"

"완성품 블록"  
예) 인형  
집  
마카  
상

FileInputStream  
ByteArrayInputStream  
...

"Decorator" 패턴

Component

InputStream/OutputStream  
Reader/Writer

FilterInputStream

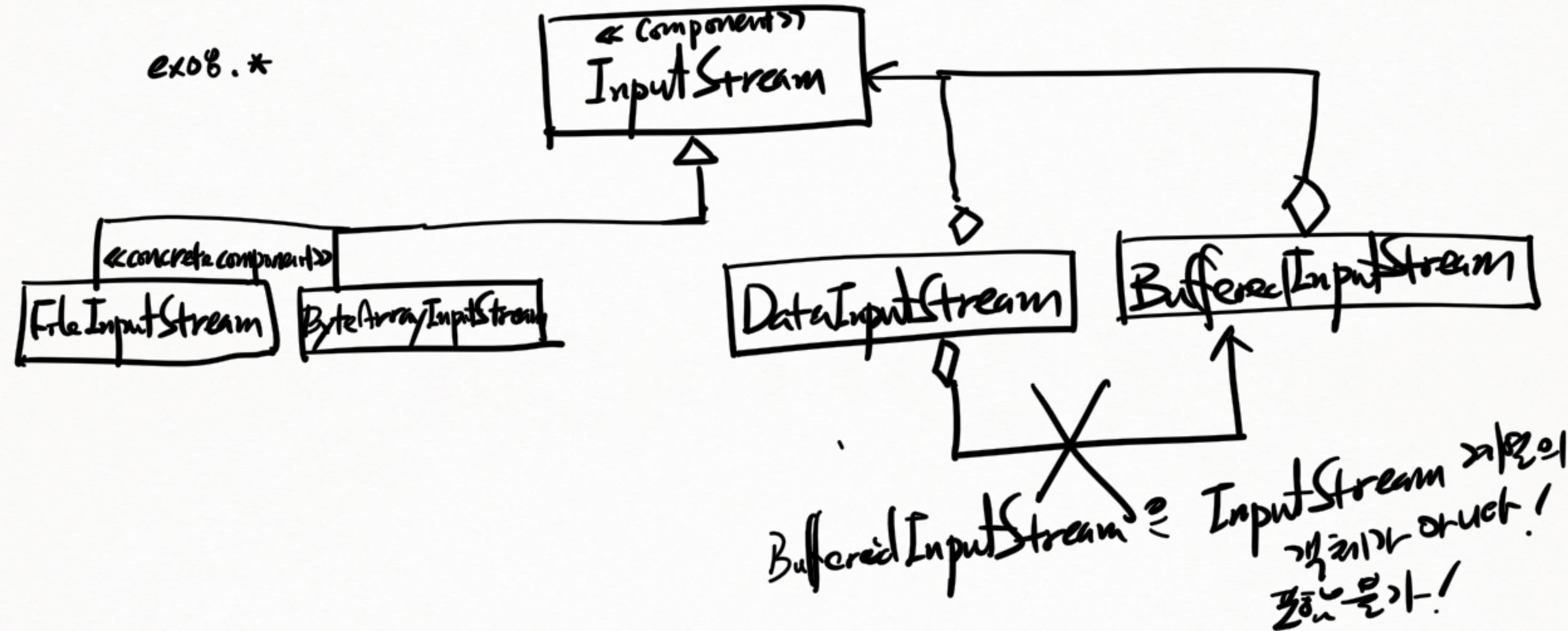
Decorator

Data processing  
Stream class

중간블록 예) 짧은  
큰화  
나눌 블록

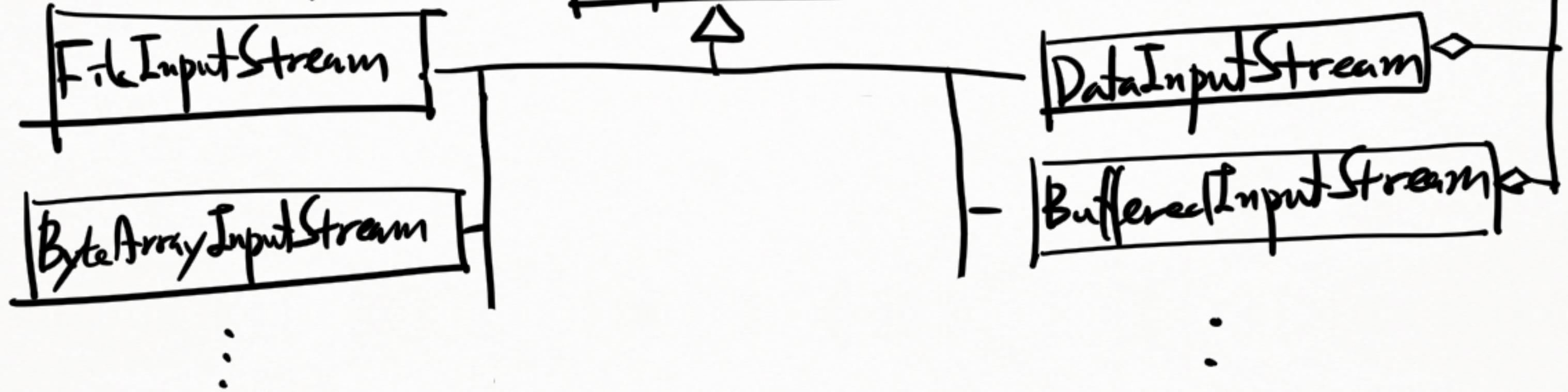
DataInputStream  
BufferedInputStream  
ObjectInputStream

ex08.\*



ex of step 1. \*

« concrete component »



ex09. step2. \*

