

# Java I/O Stream API

byte stream

character stream

O ↗  
↓ ↘

InputStream

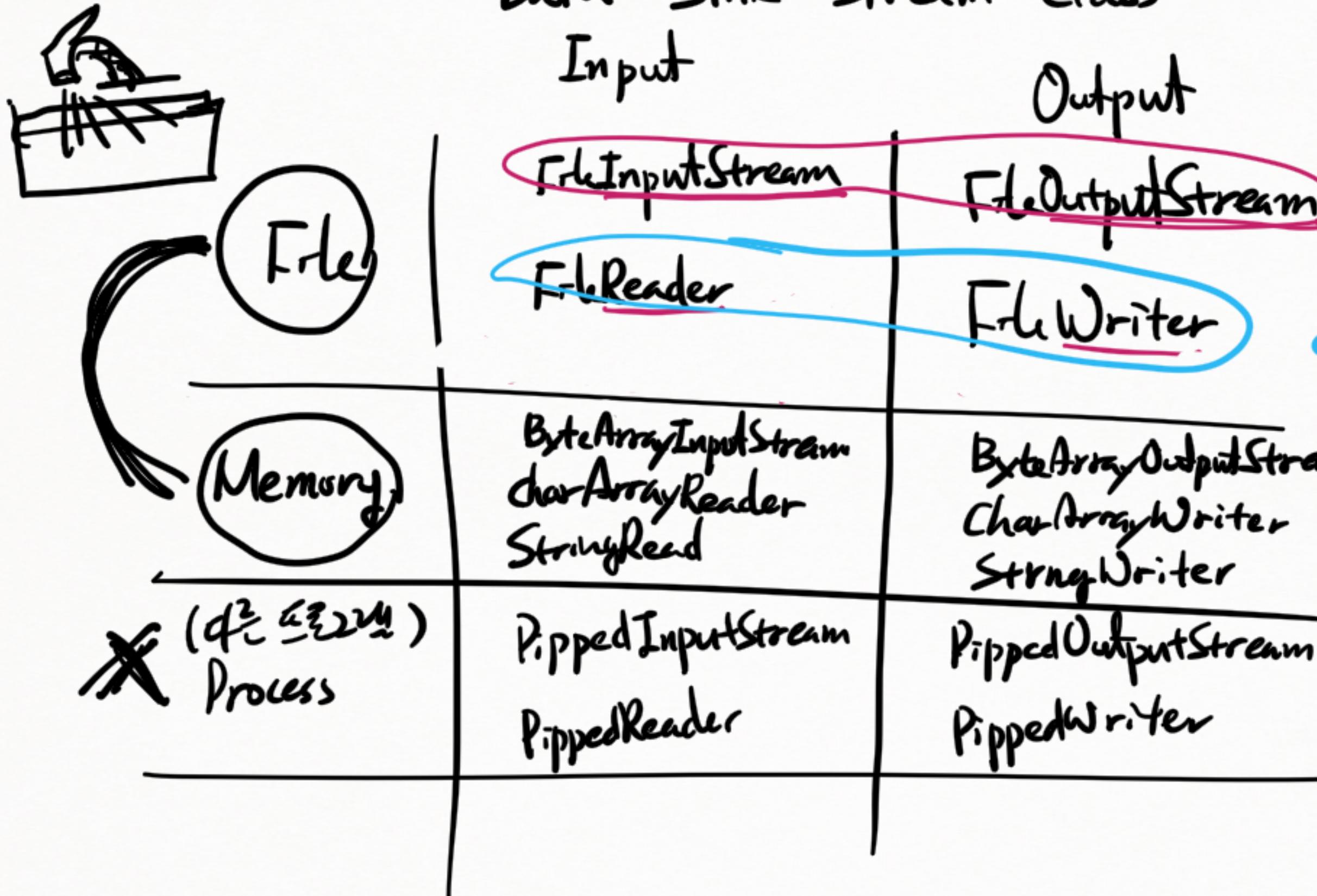
Reader

↗ I ↗  
↓ ↘

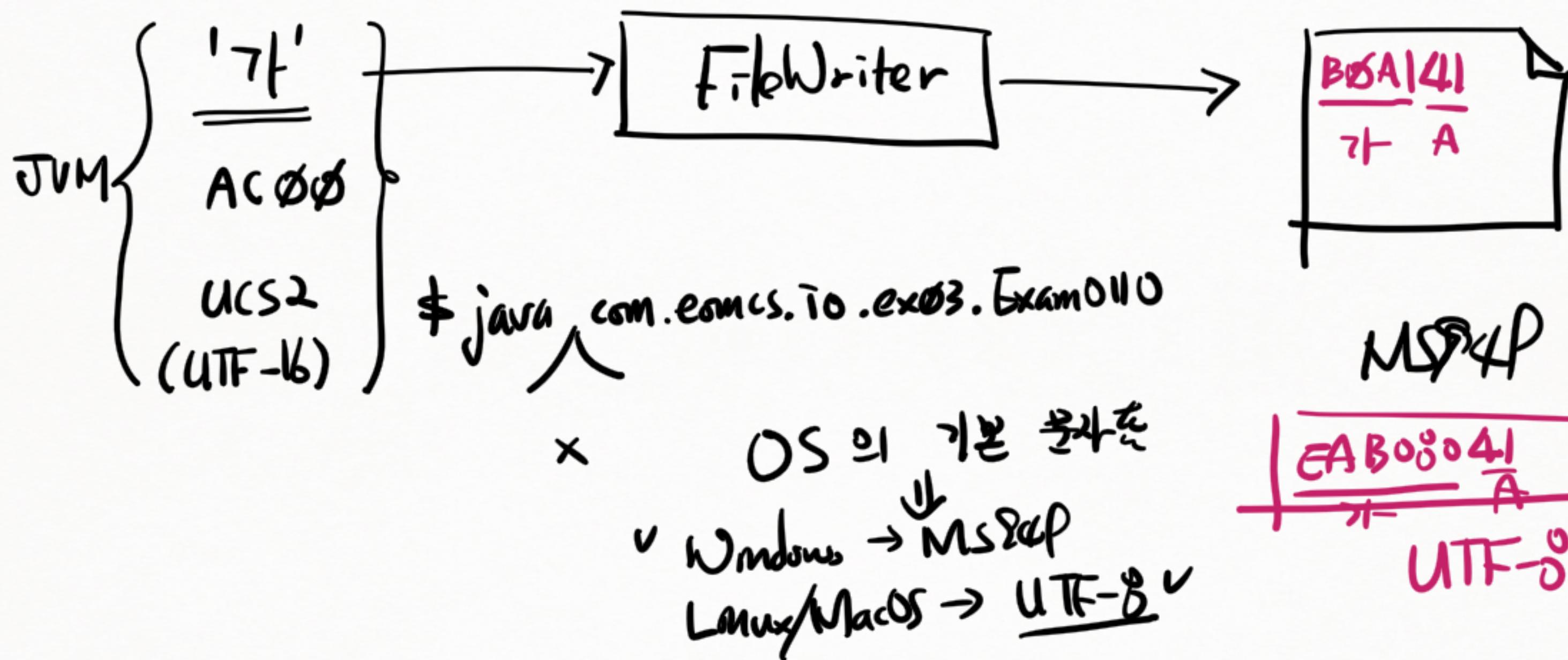
OutputStream

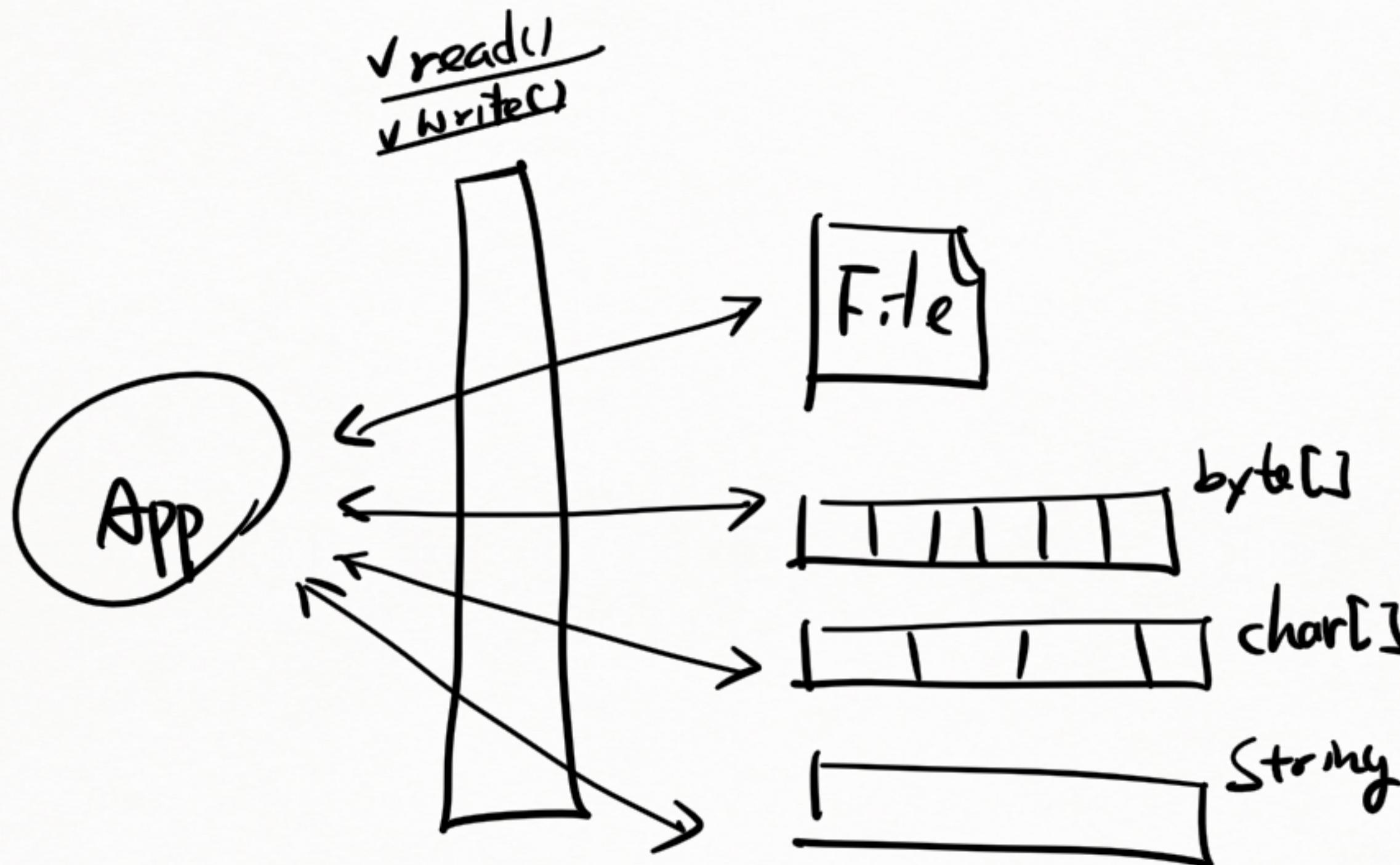
Writer

# 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

"

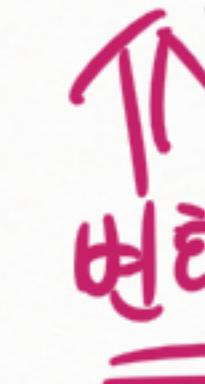
UTF-16BE

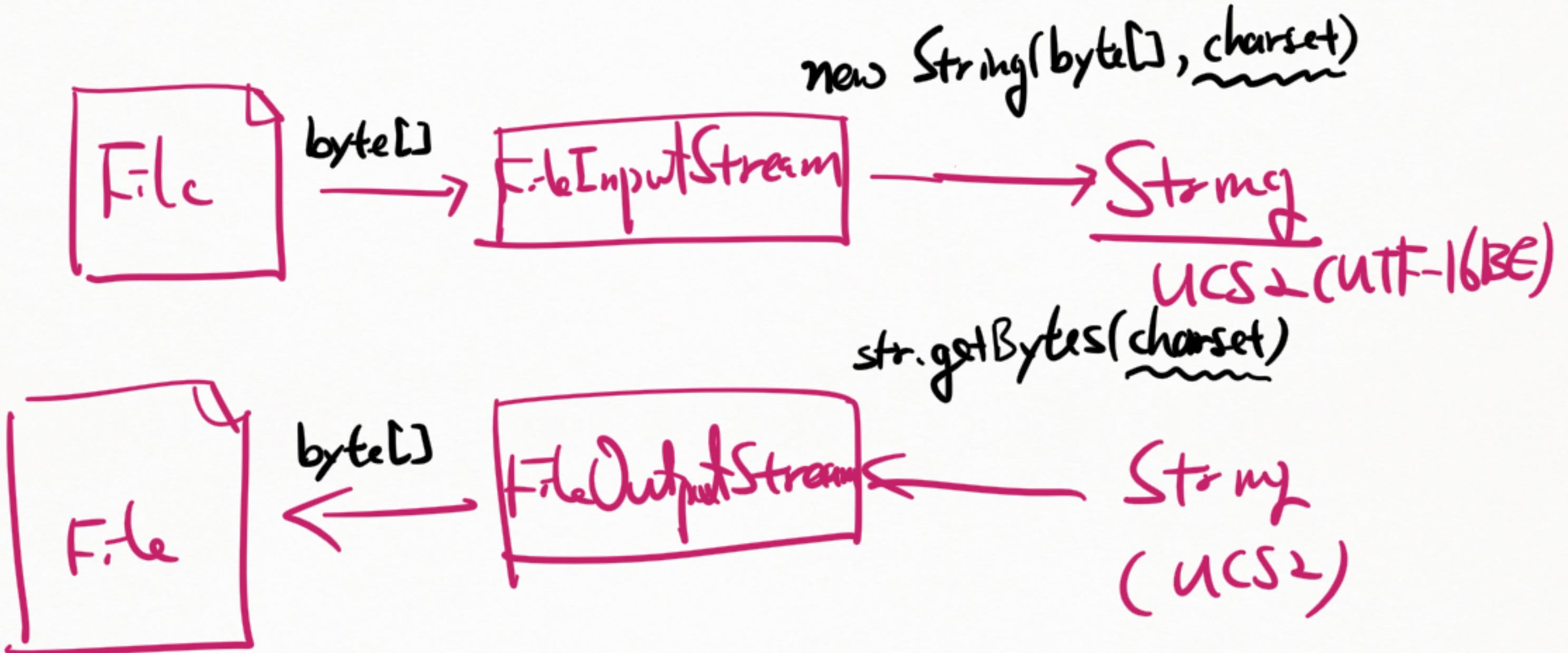
"

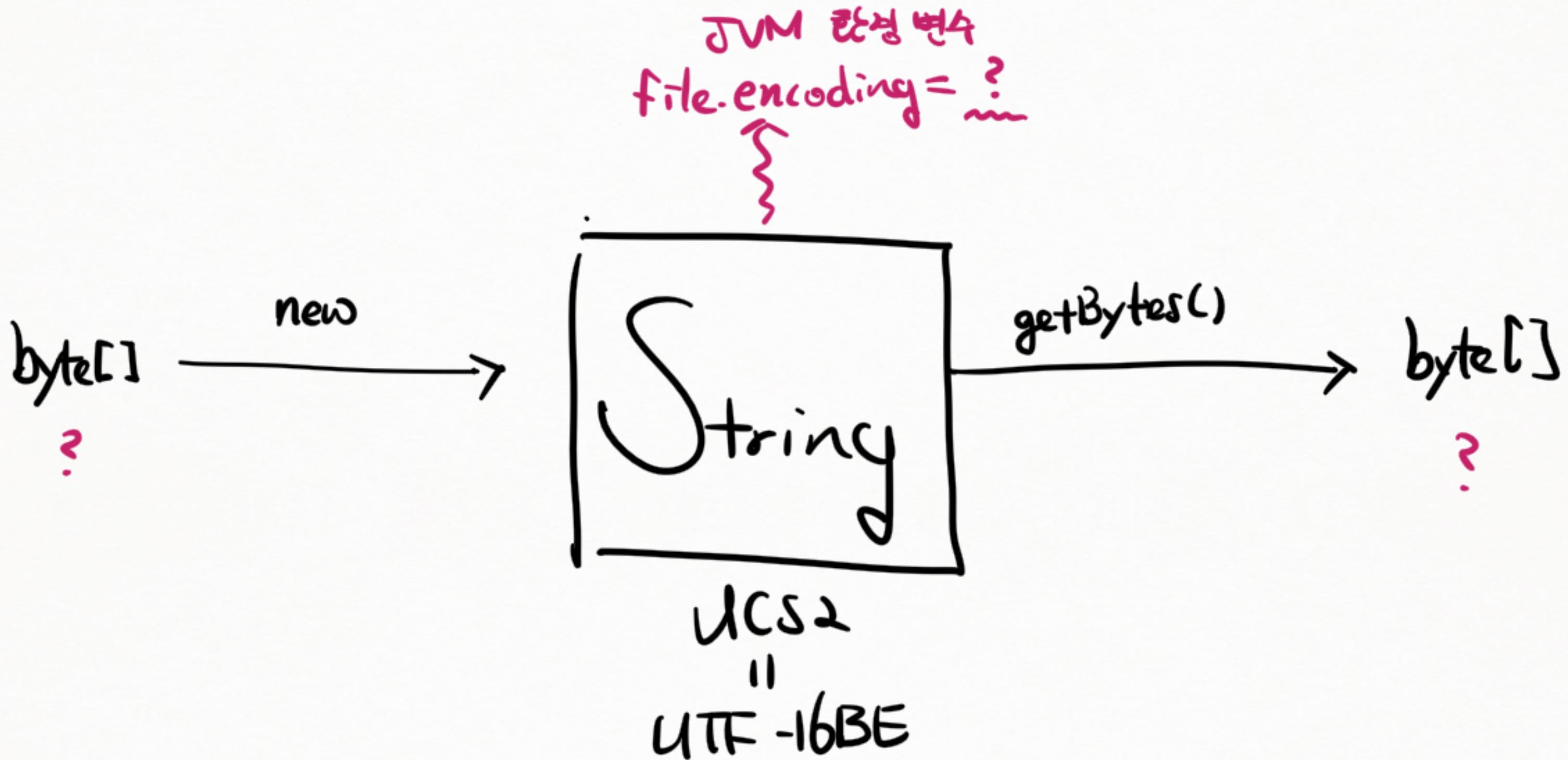
char c;  
~~~ 'A' → 0041  
'가' → Aced

File/Network

MSP430  
✗  
EUC-KR  
**UTF-8**







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

2×XX

중식

34XX - 30XX 헌식

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

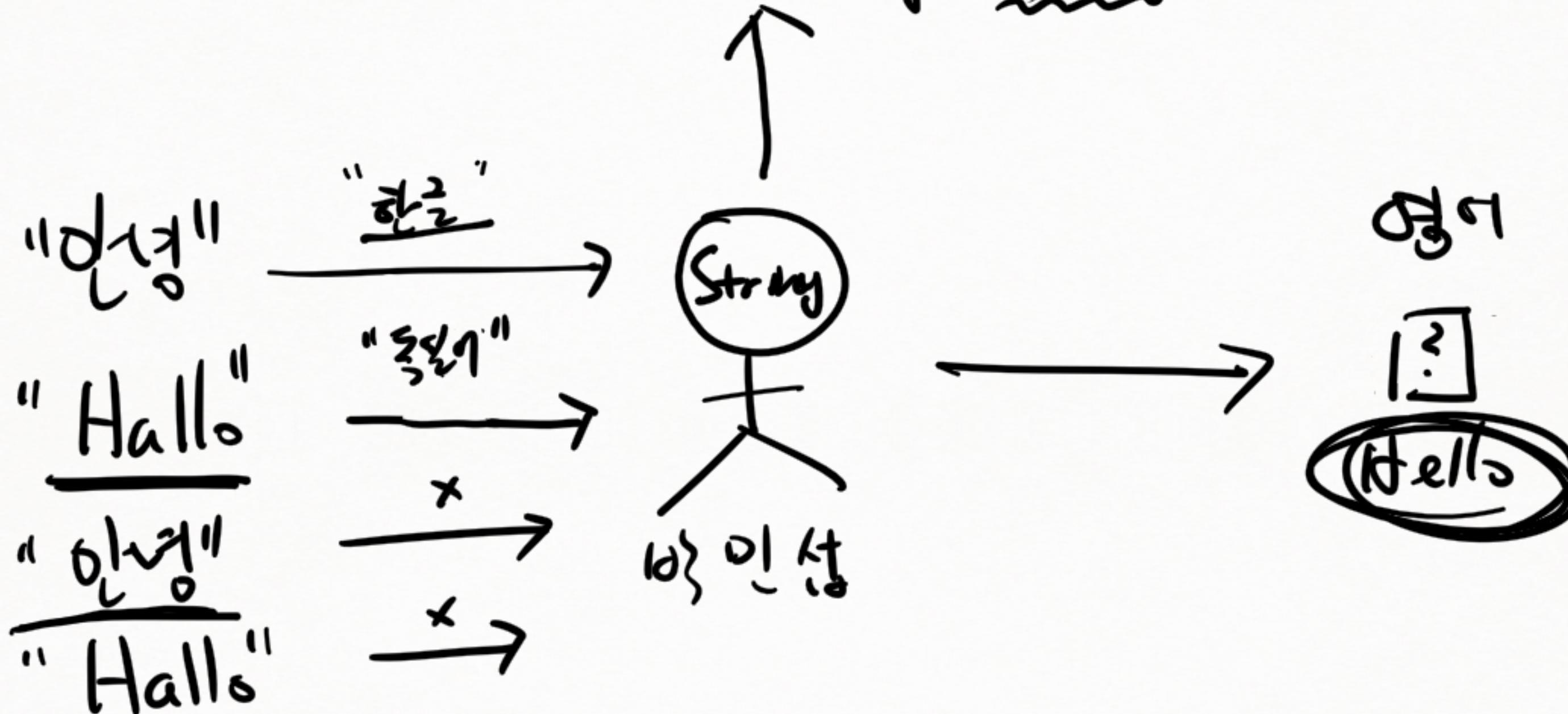
✓ A  $\Rightarrow \begin{array}{r} 2134 \\ 3418 - 3012 \\ \hline 12 \end{array}$

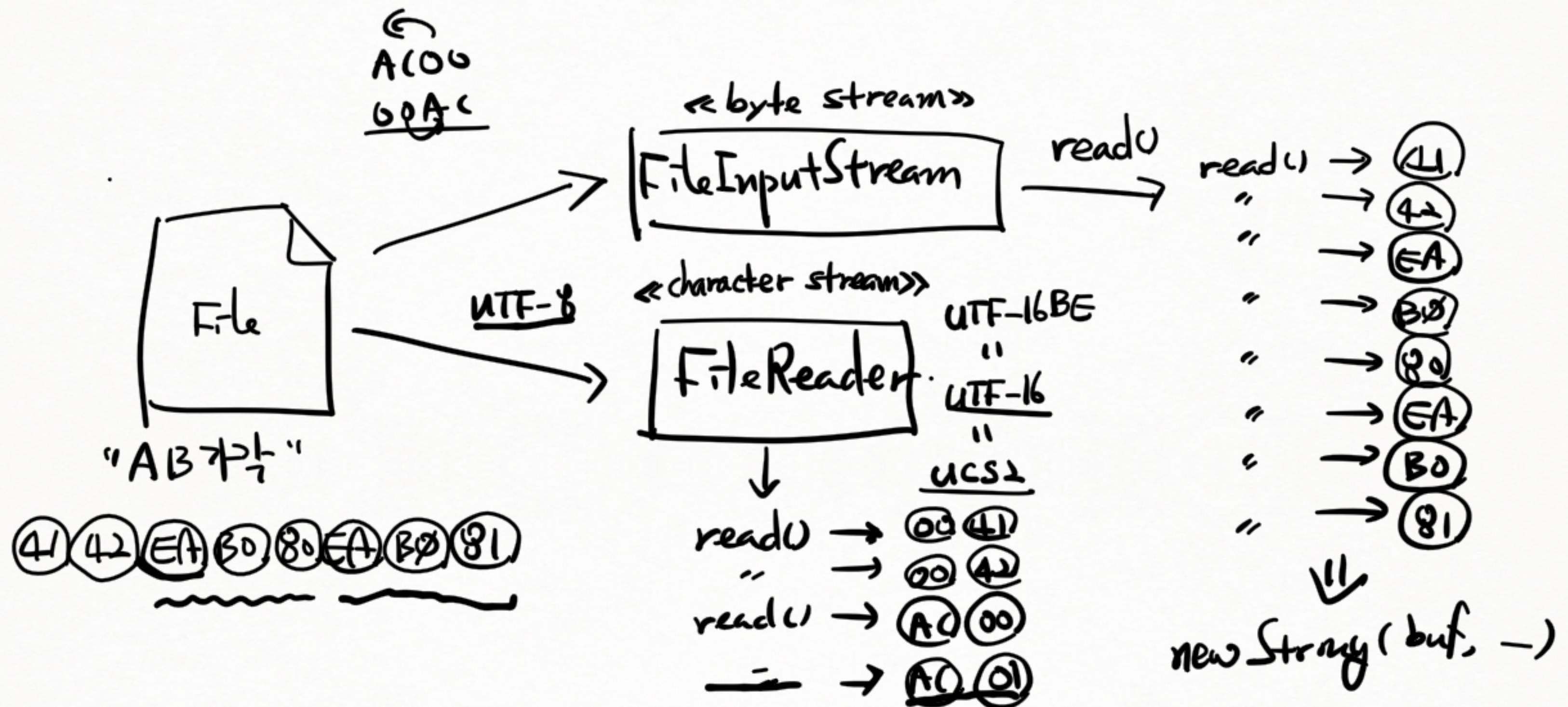
✓ B  $\Rightarrow \begin{array}{r} 3418 - 3011 \\ 4119 - 3011 \\ \hline 12 \end{array}$

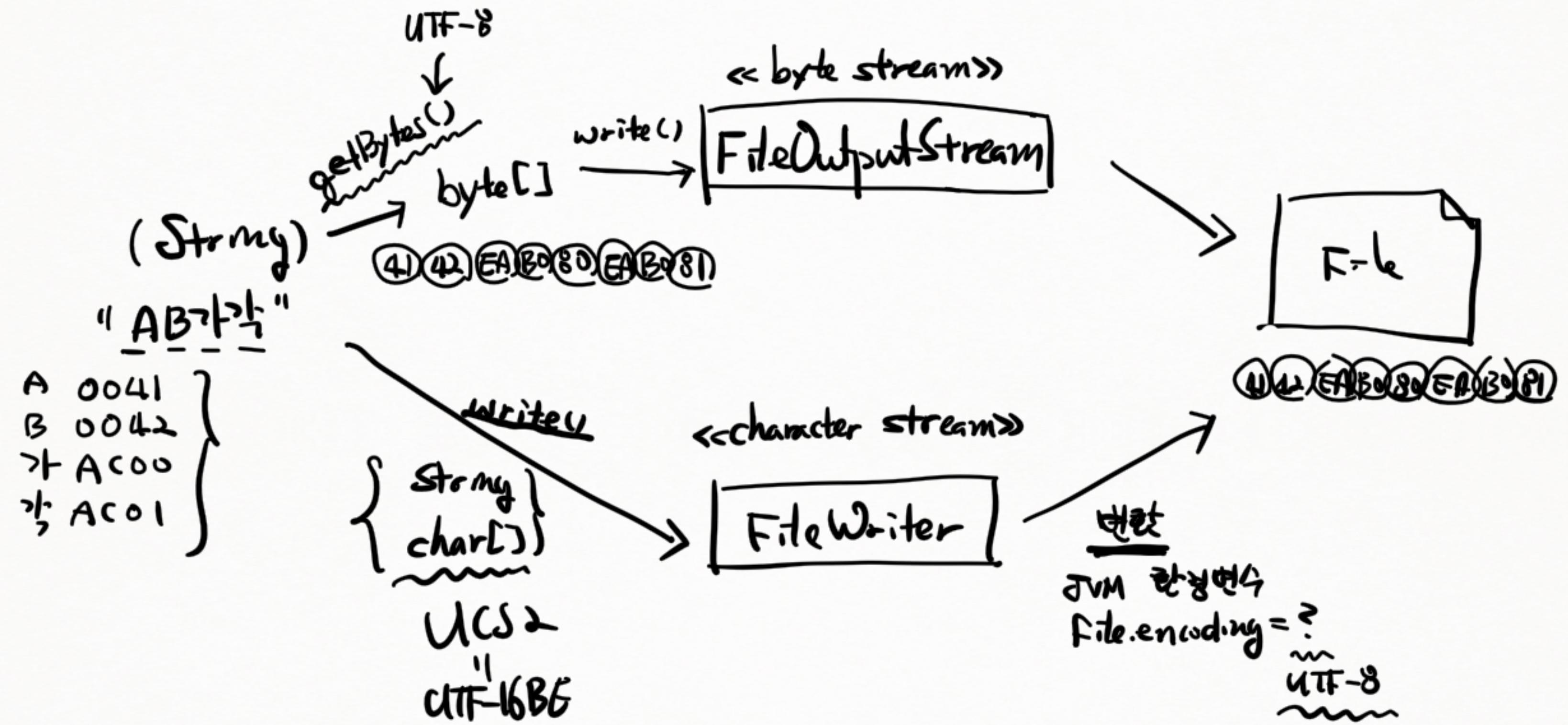
✓ C  $\Rightarrow \begin{array}{r} 4119 - 3011 \\ 9999 - 3011 \\ \hline 12 \end{array}$

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

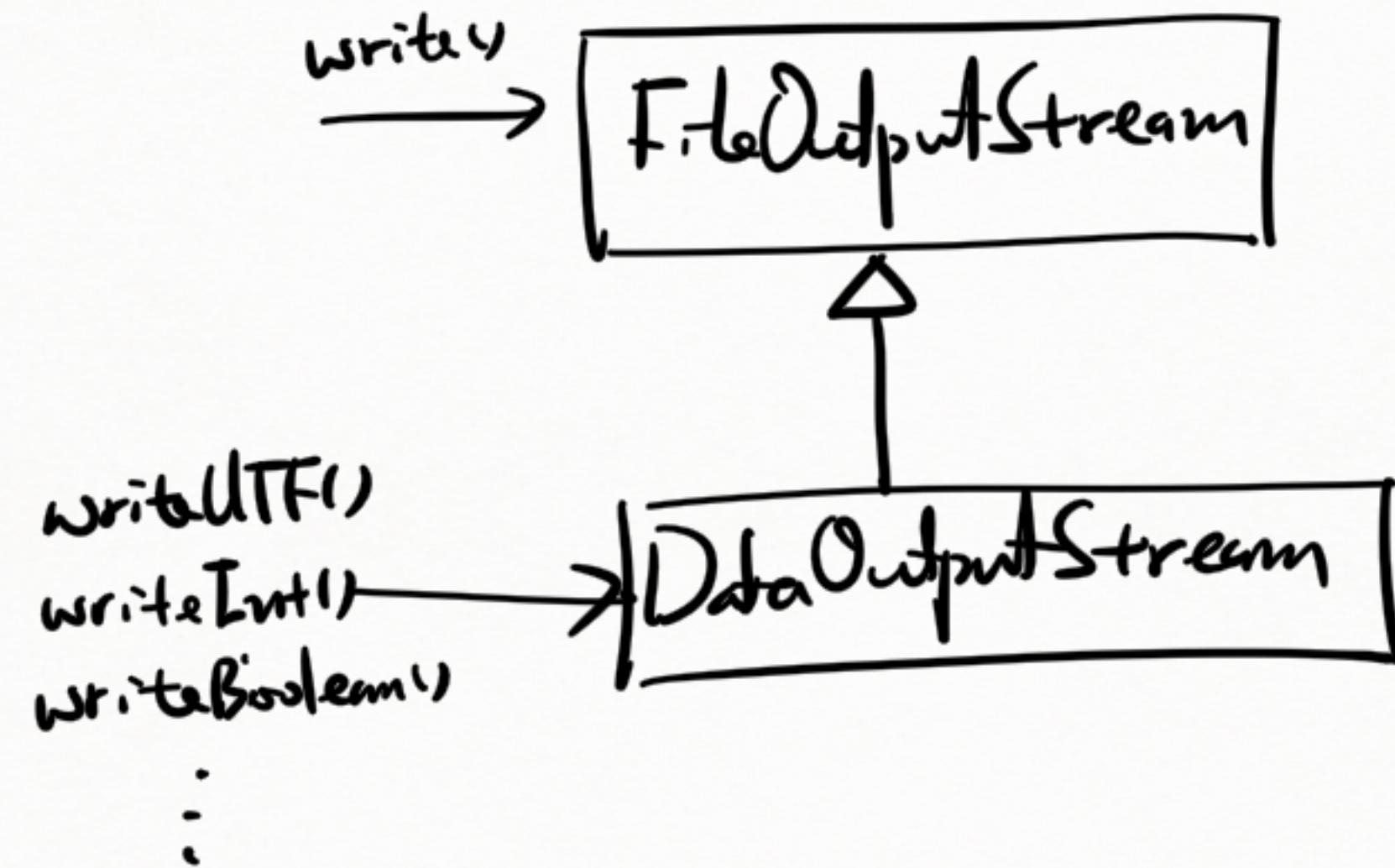
file.encoding = UTF-8

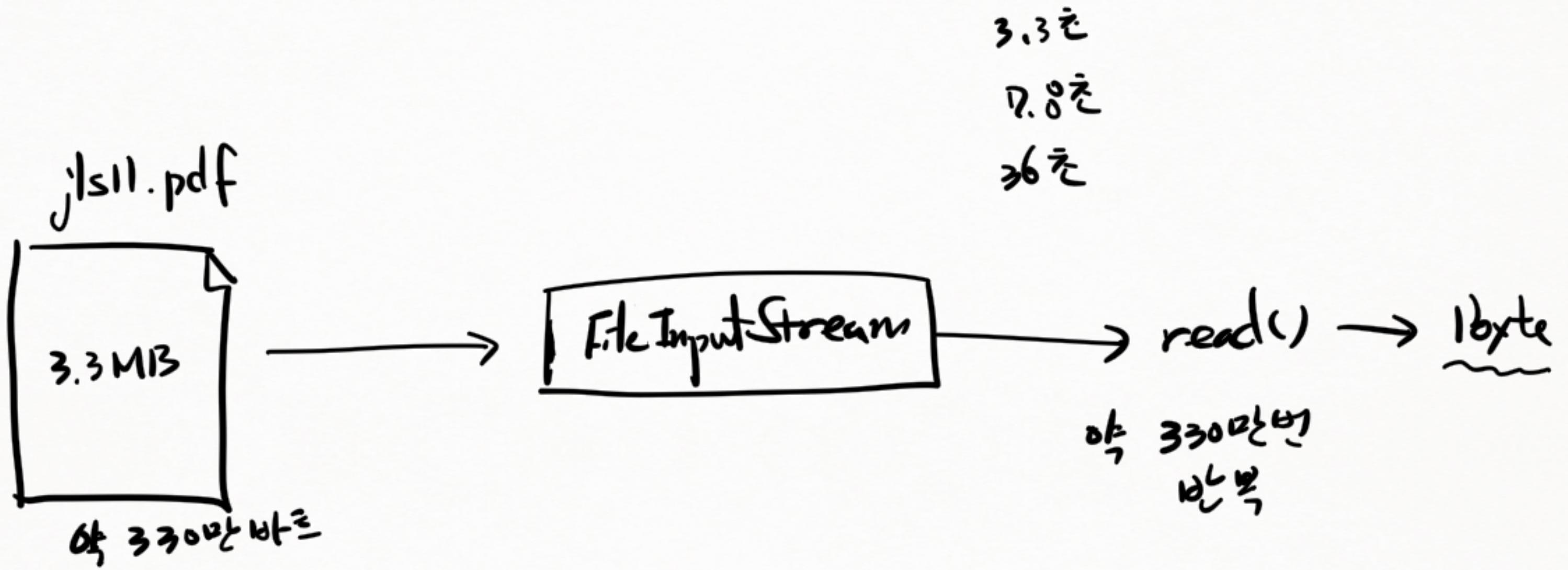


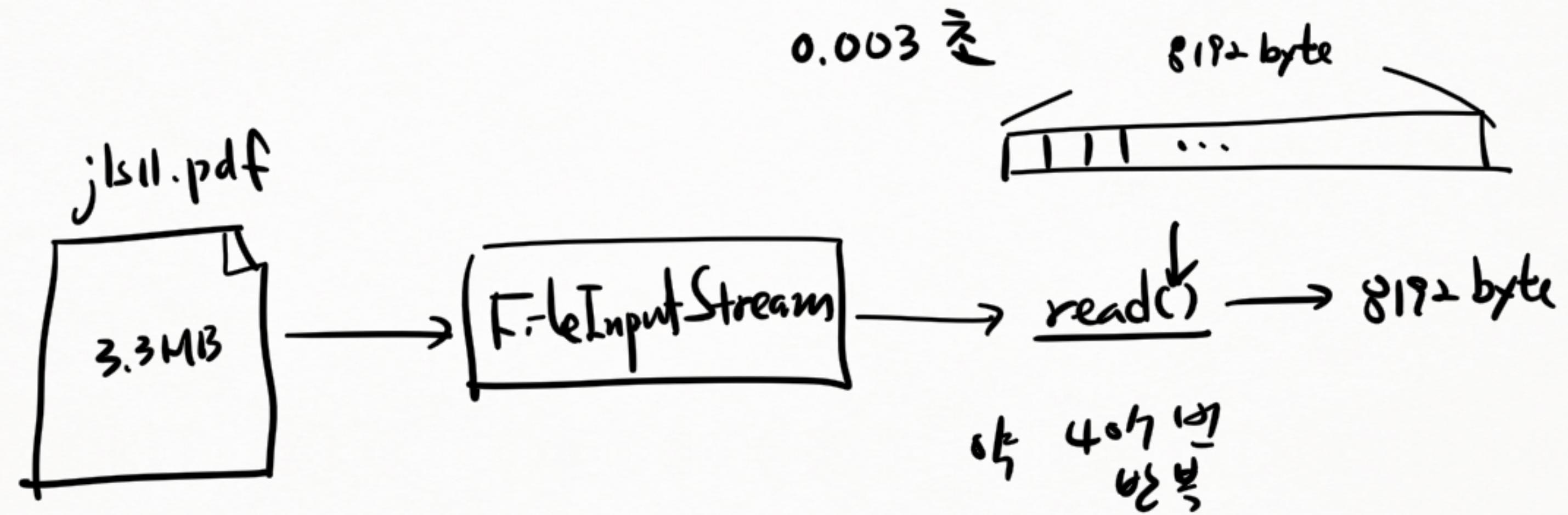


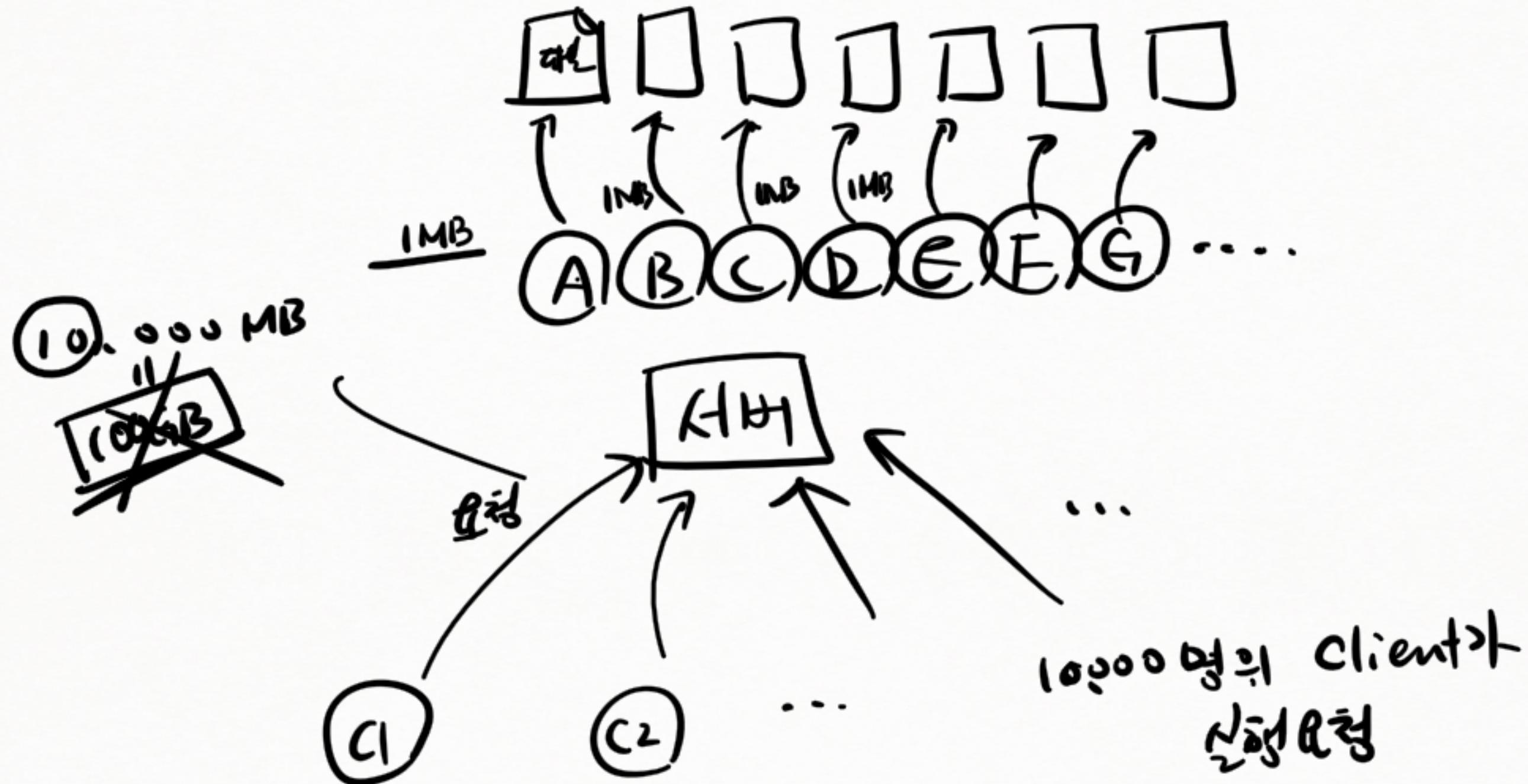


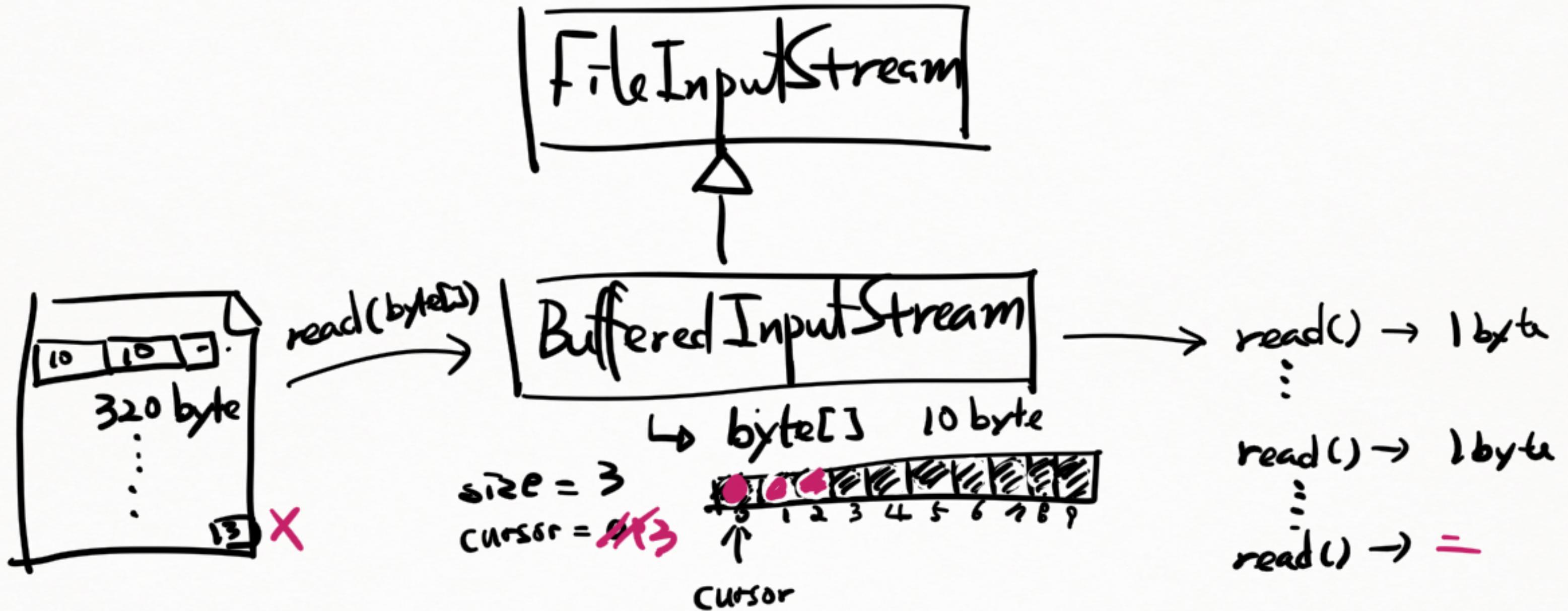


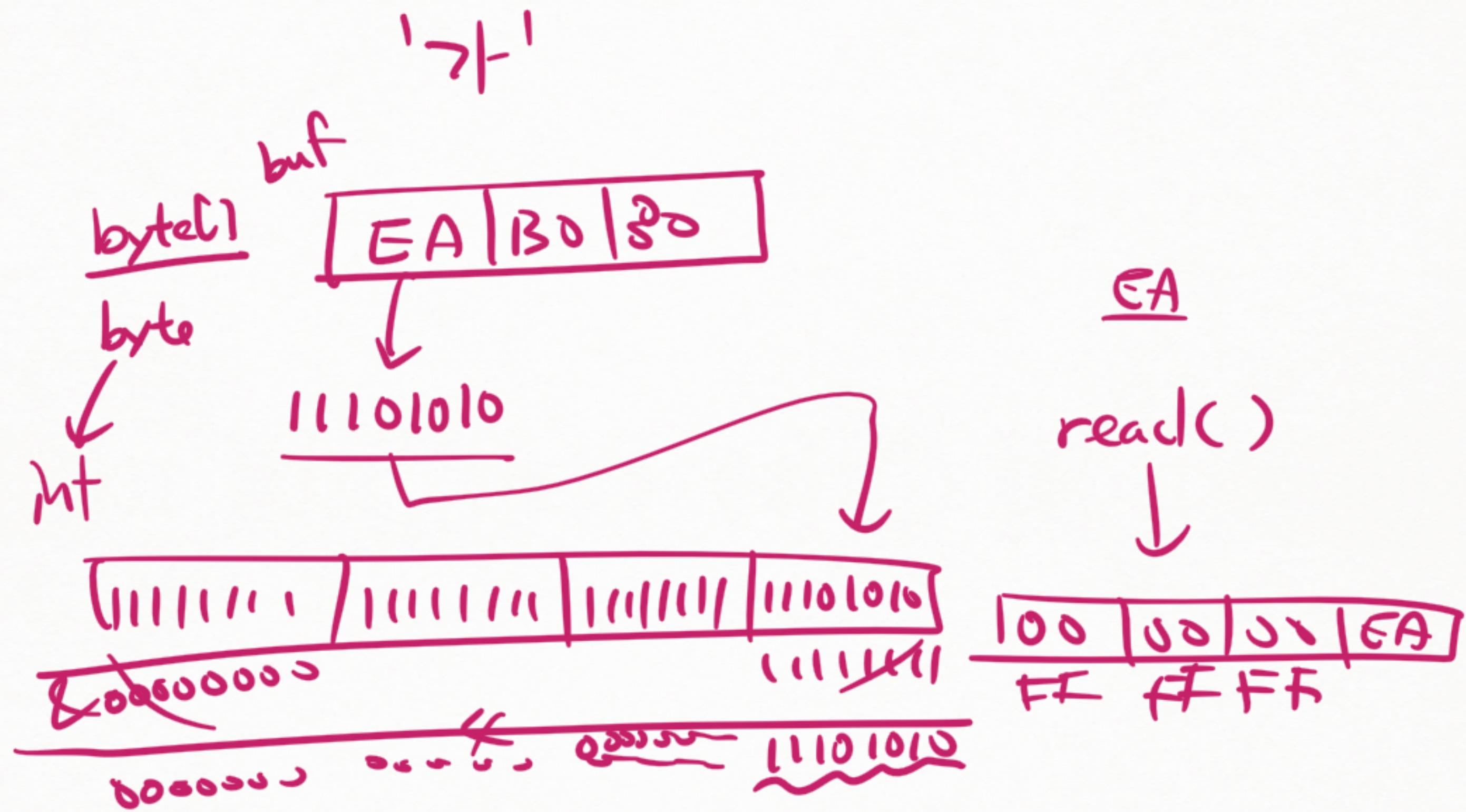


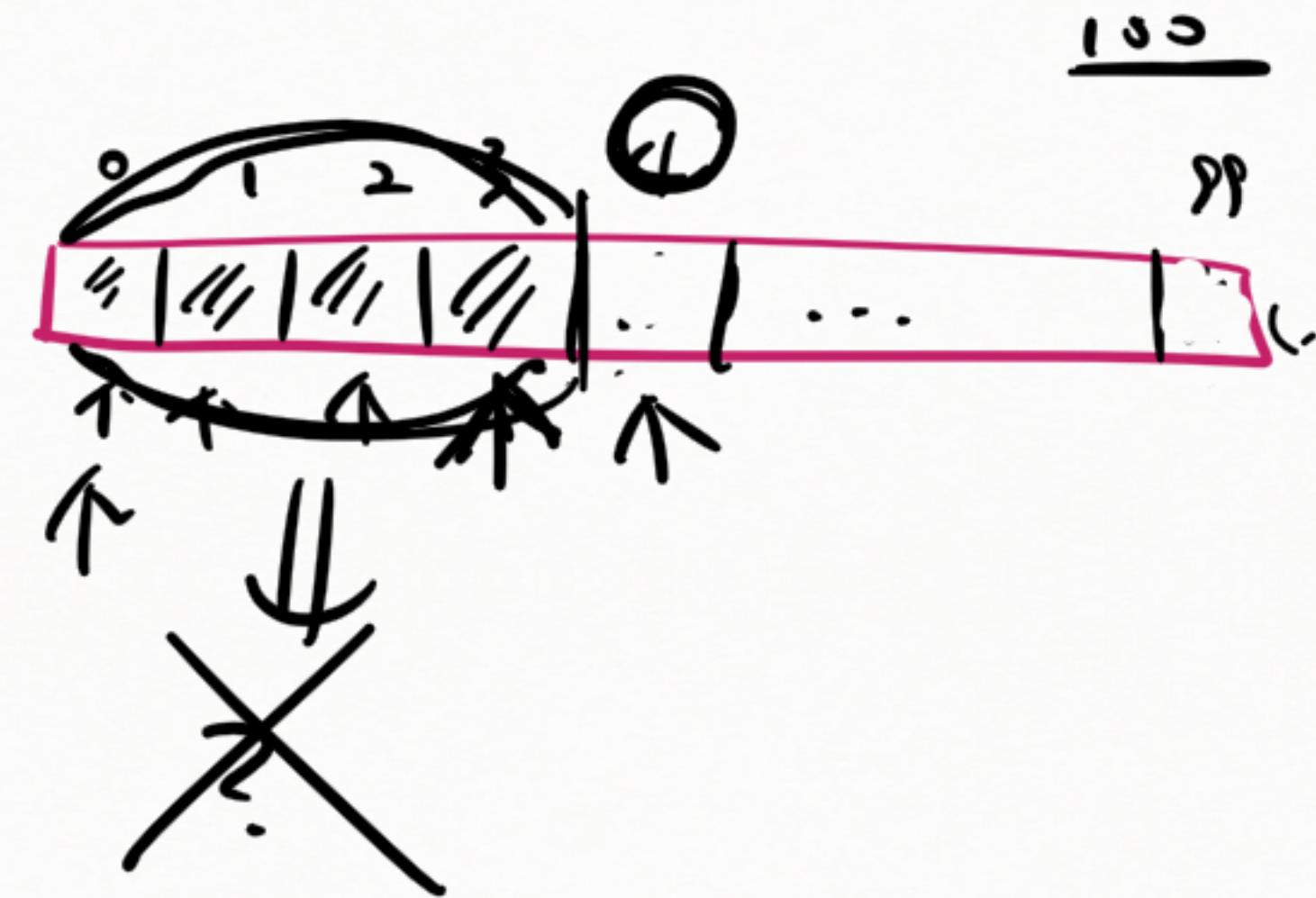


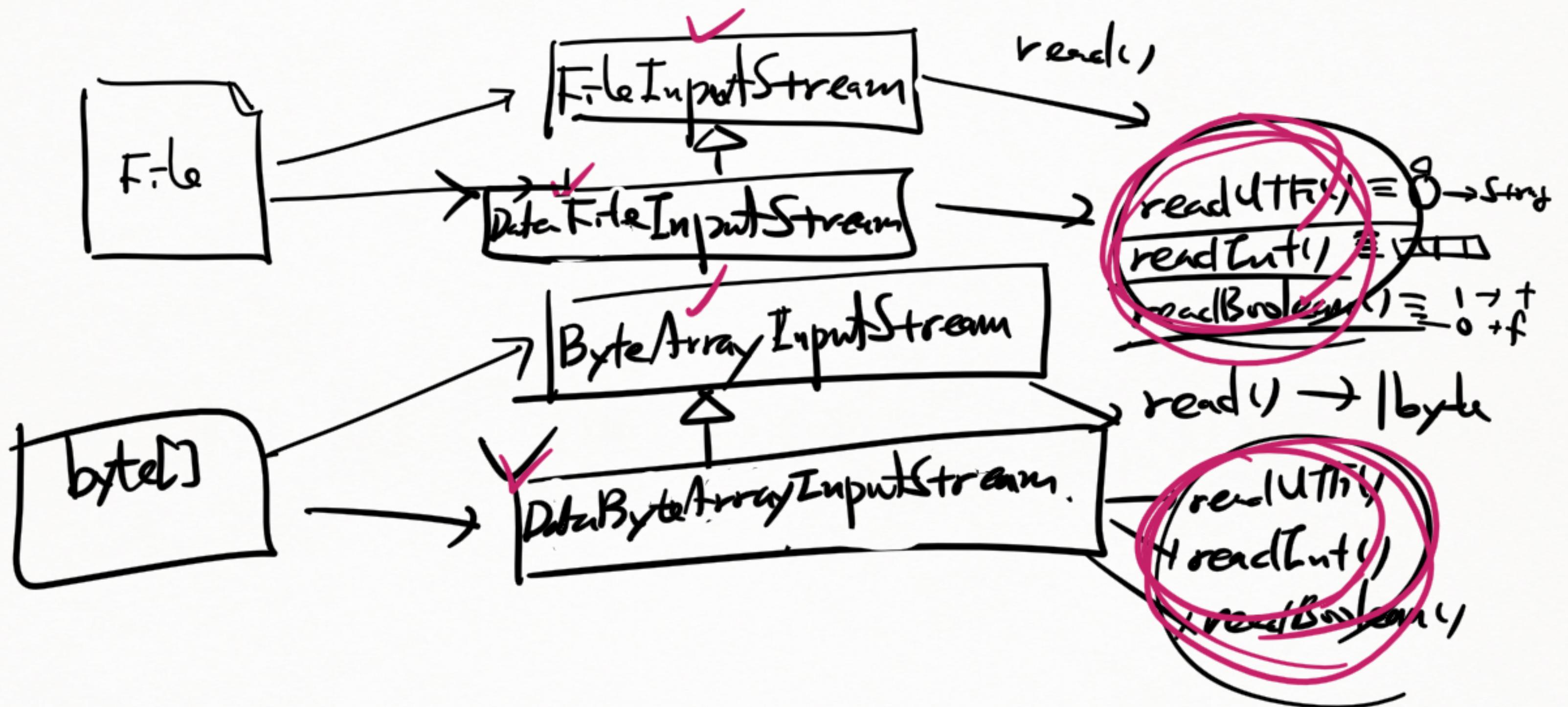


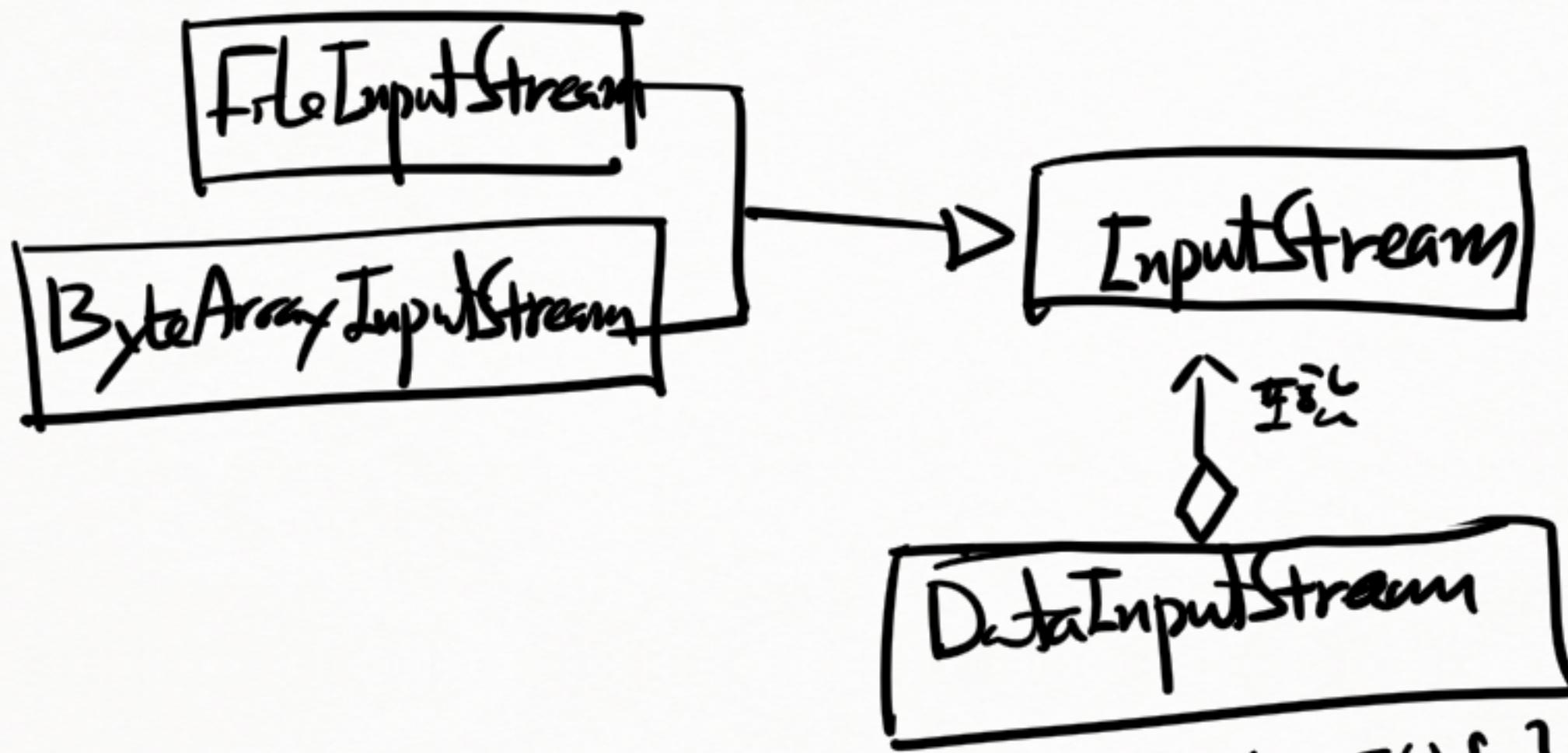






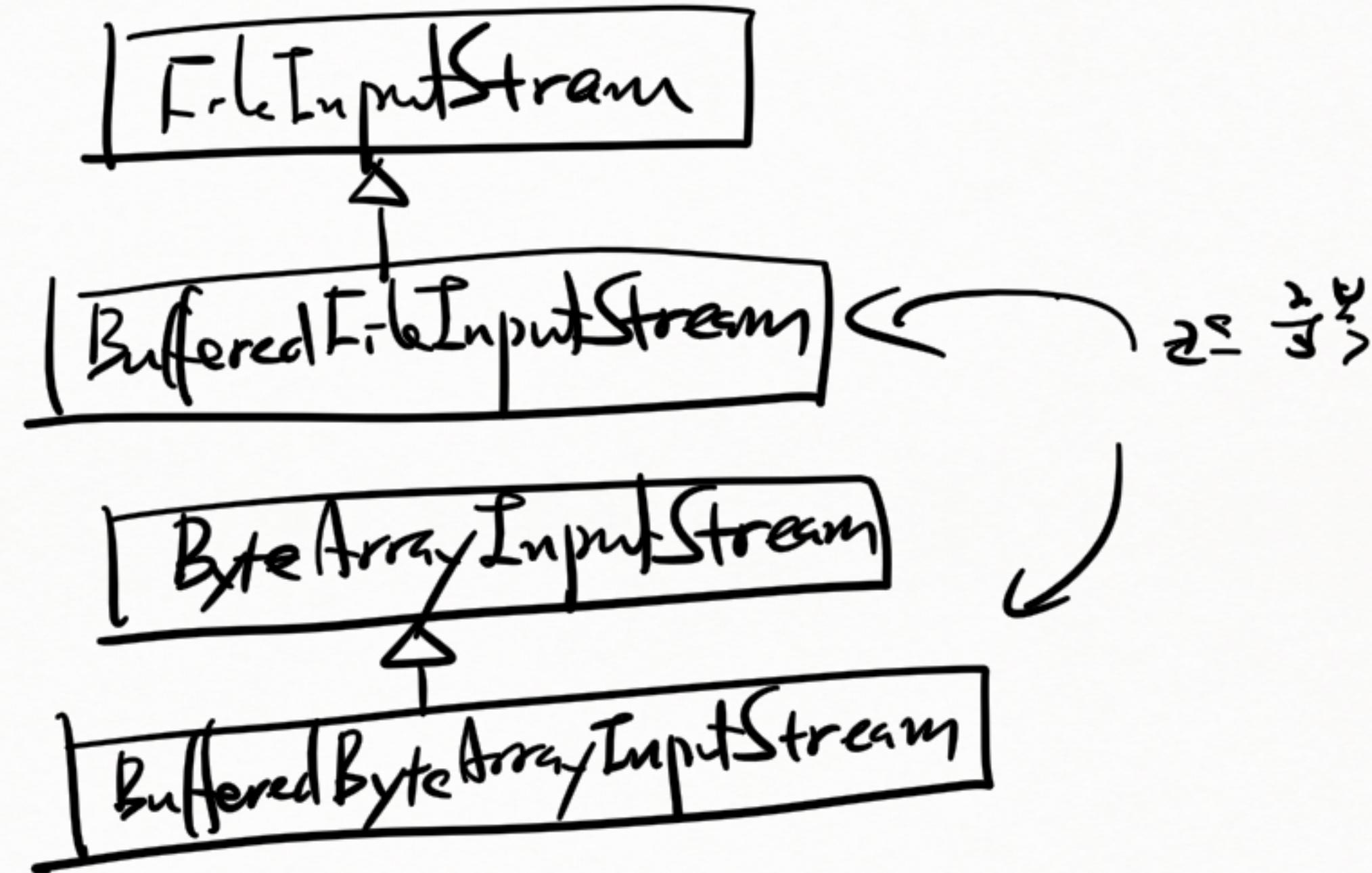


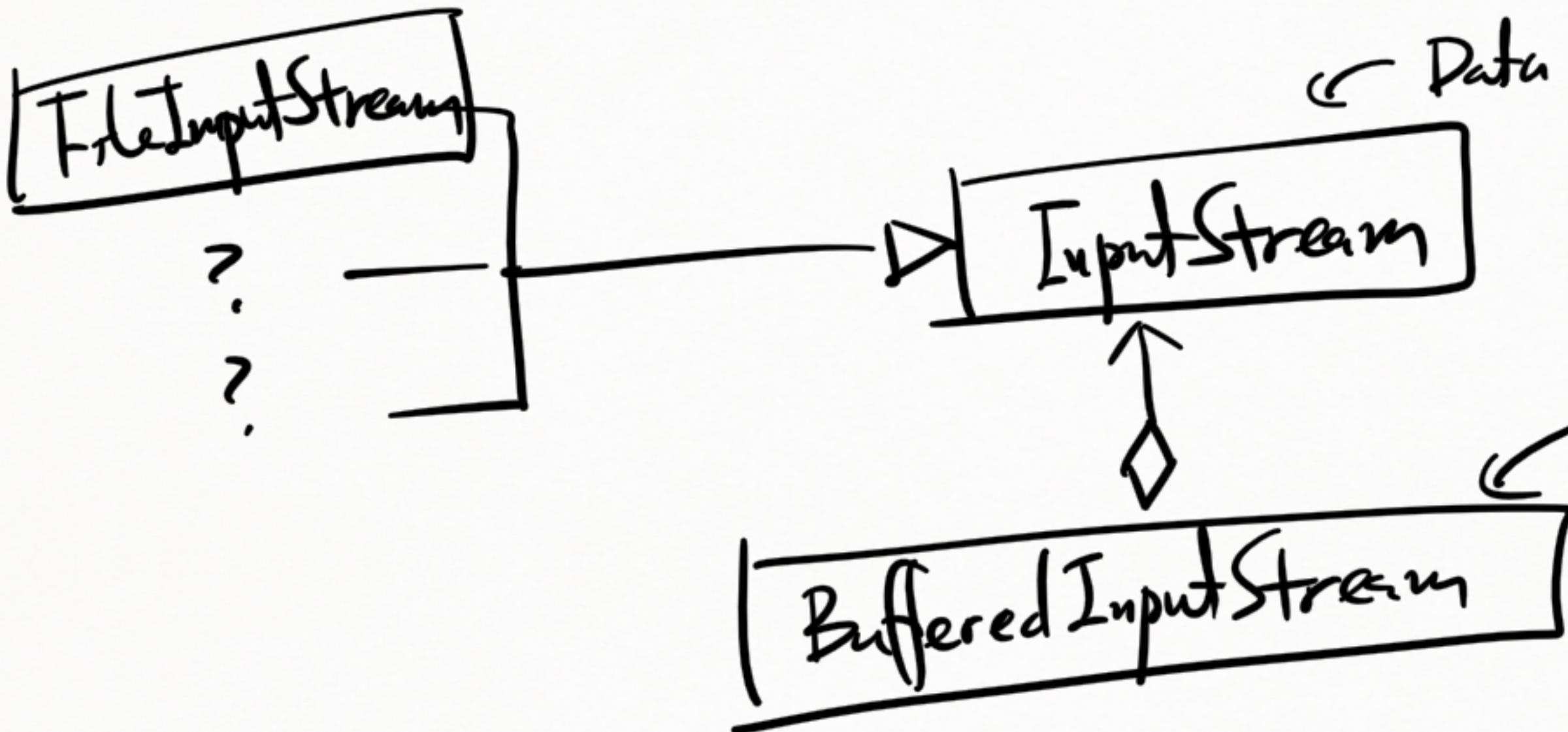




장식구 (Decorator)

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





↪ Data Sink Stream class

Data processing  
stream class