

Agenda

- Creational : ~~Factory~~ Prototype
- Structural : Flyweight
- Behavioural : Strategy
Observer

Wednesday : ~~↓~~ ~~↓~~

Sunday :

OPTIONAL

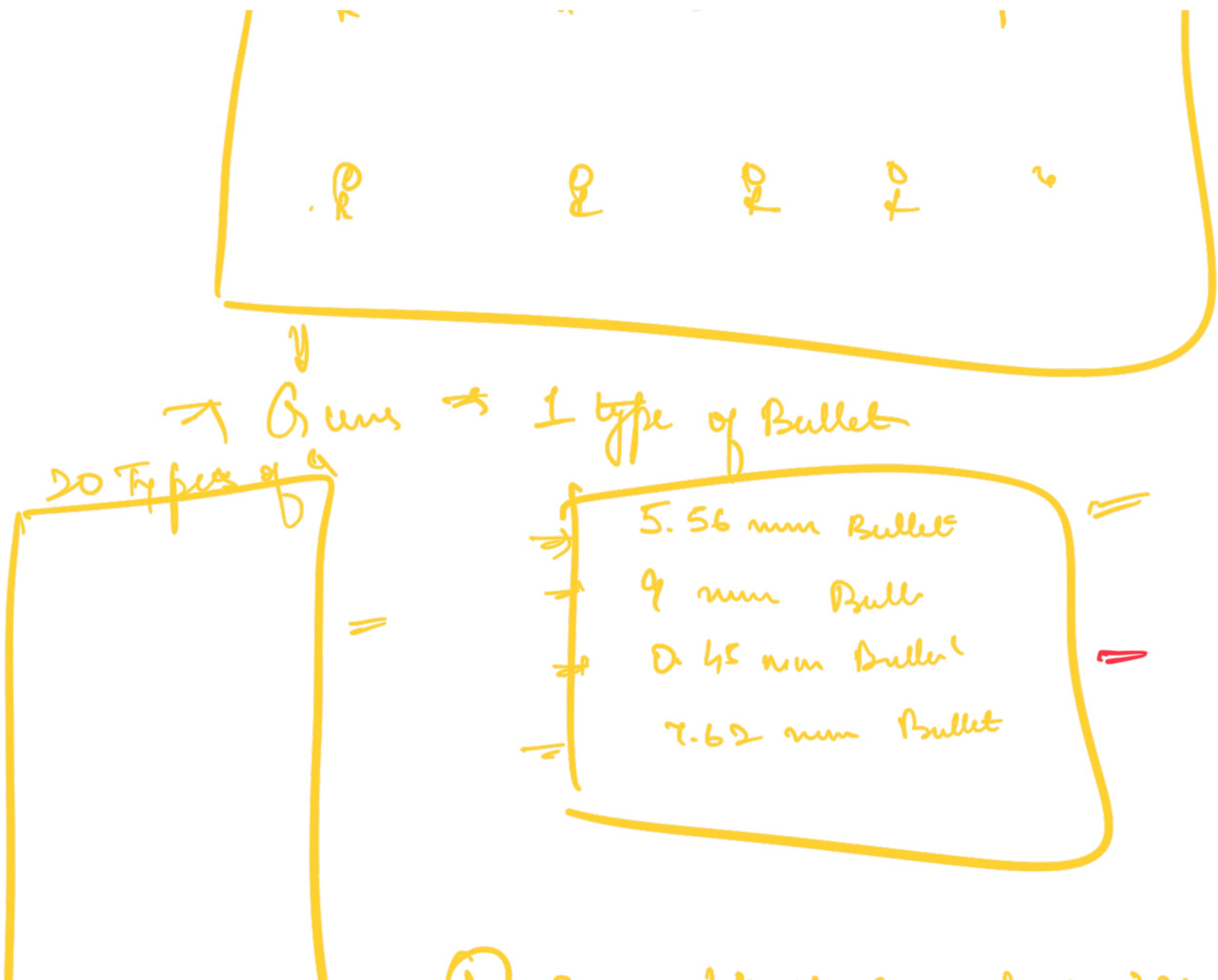
Adapter

Decorator

Flyweight Design Pattern

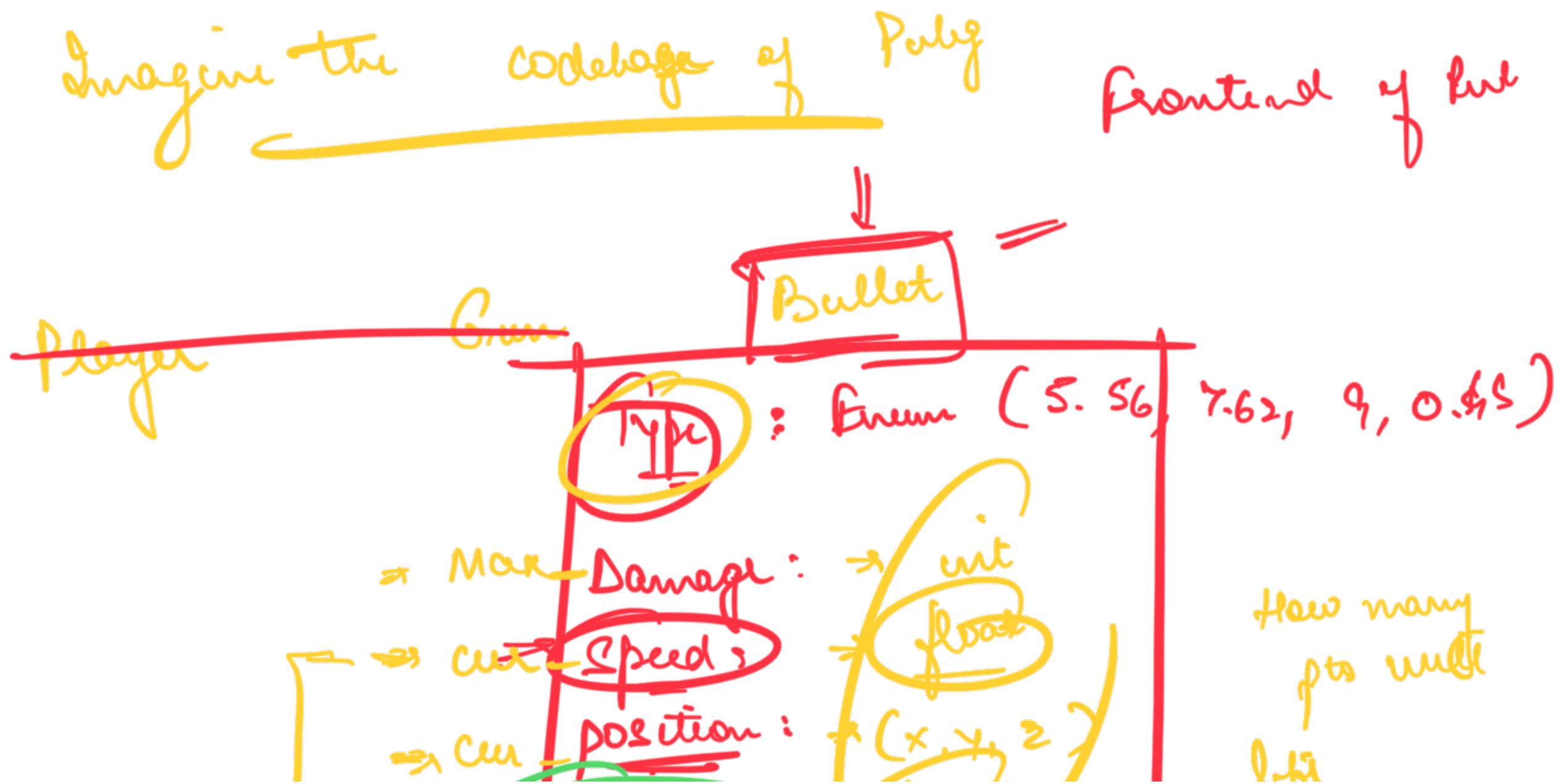
Pub G

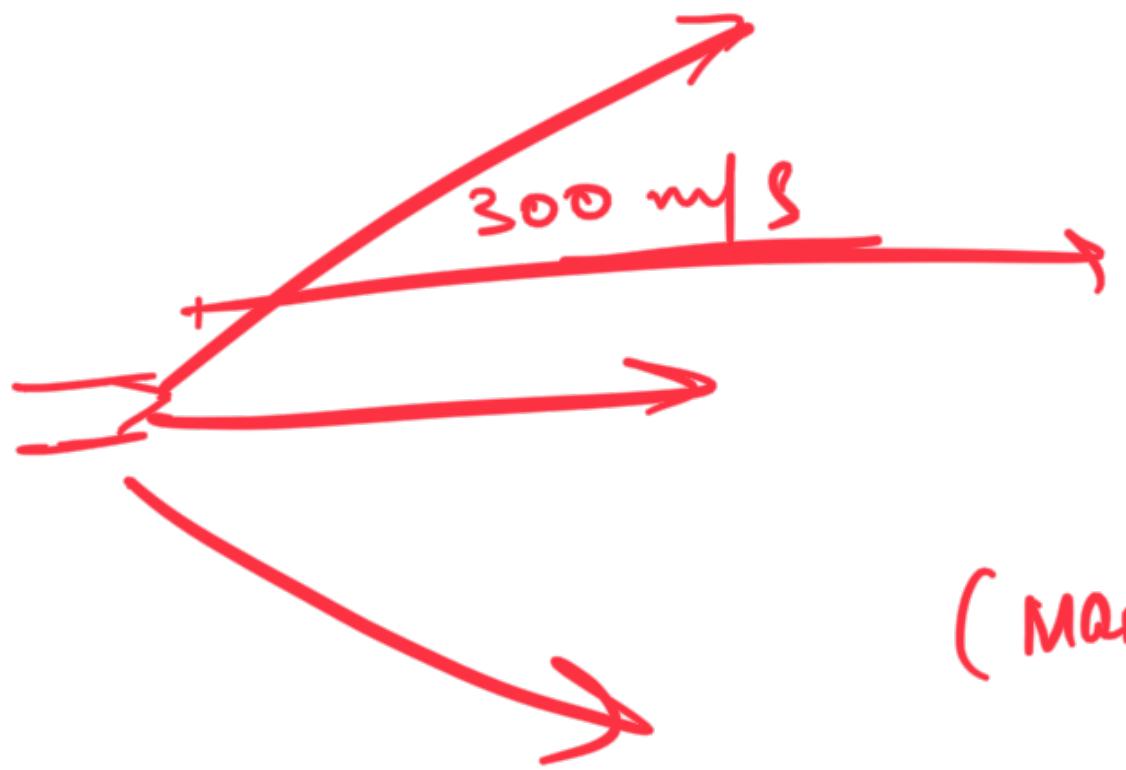
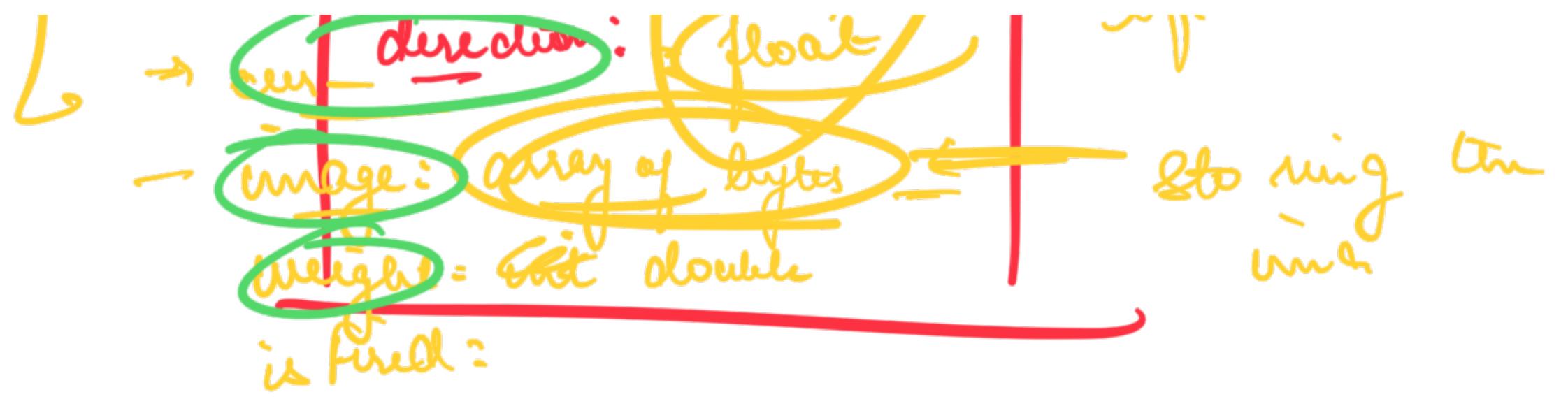
→ every player can have at most 2 gears
→ each player can have 45 min
bullet can be stored in a very safe

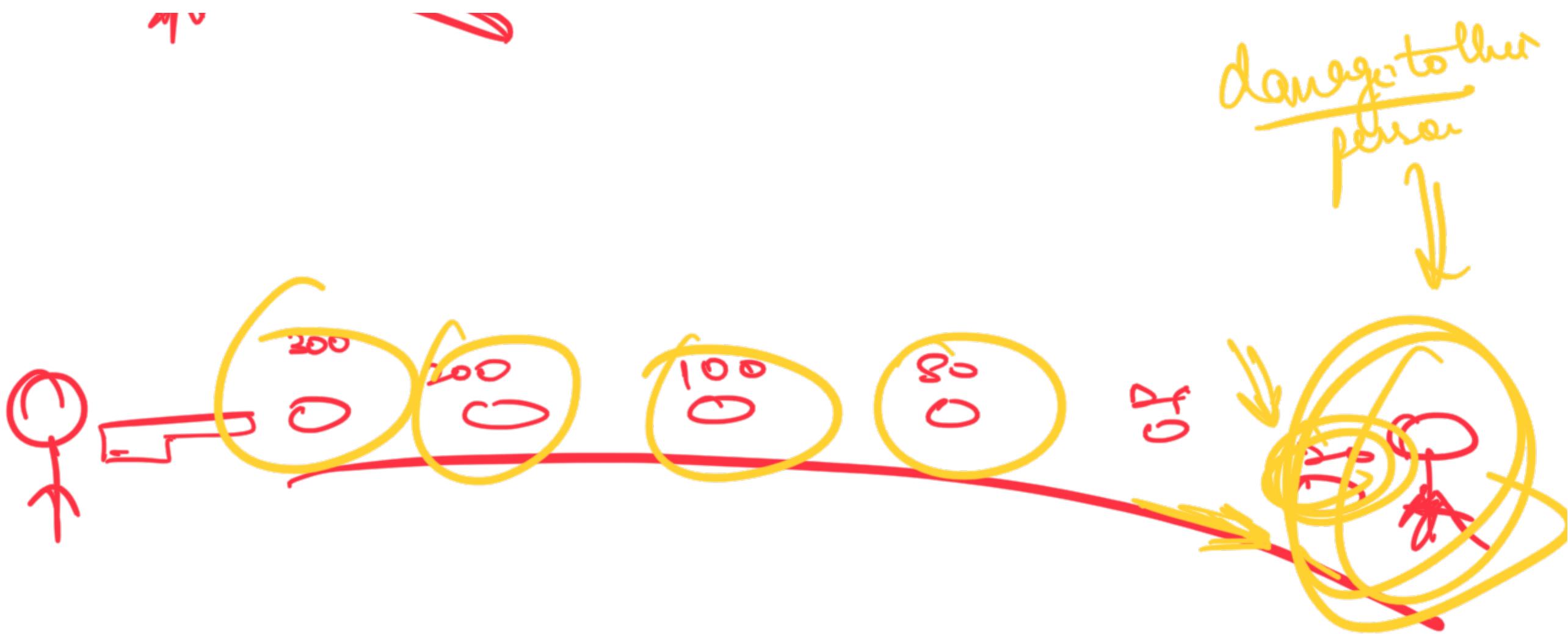




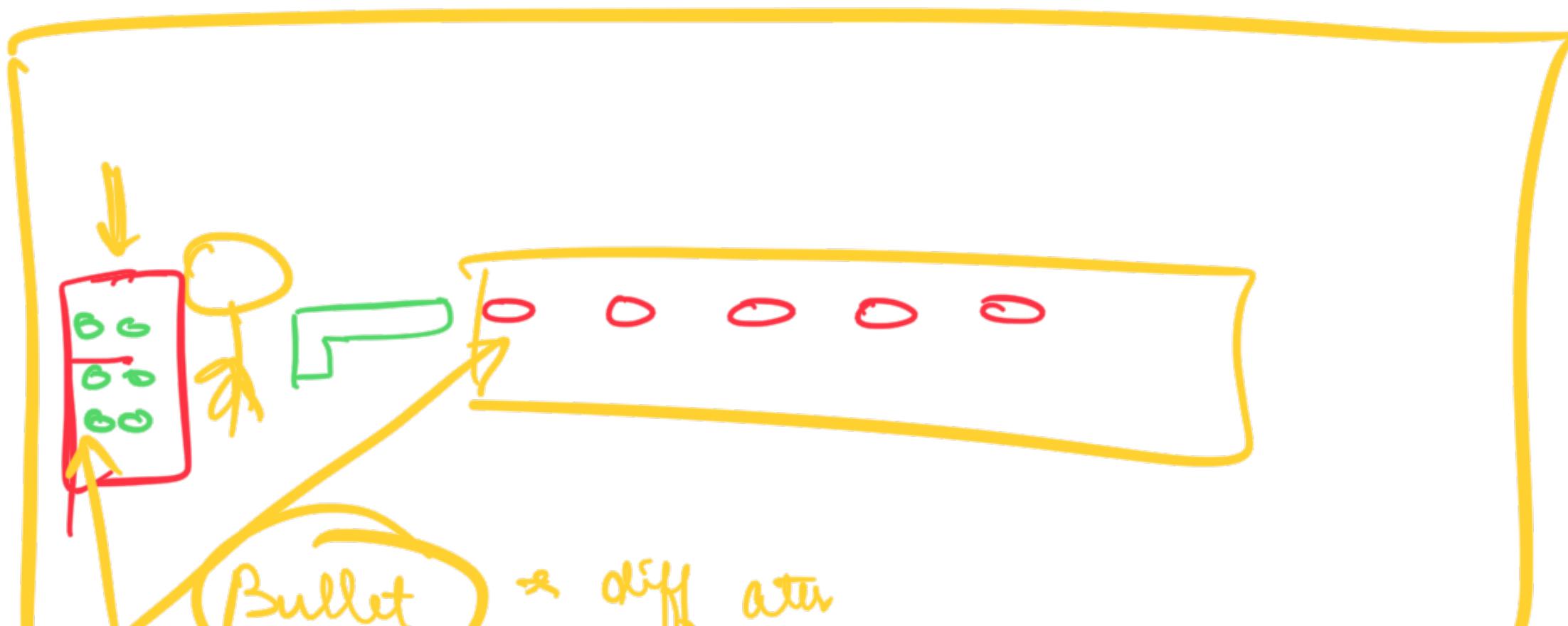
≈ 1000 bullet per person







How will a bullet class look in front end
of Pubg



VP

(x, y, z)
double or



enum BulletType {
 FIVE,
 SENGUN,
 ZERO,
 NINE,

What will be the memory used

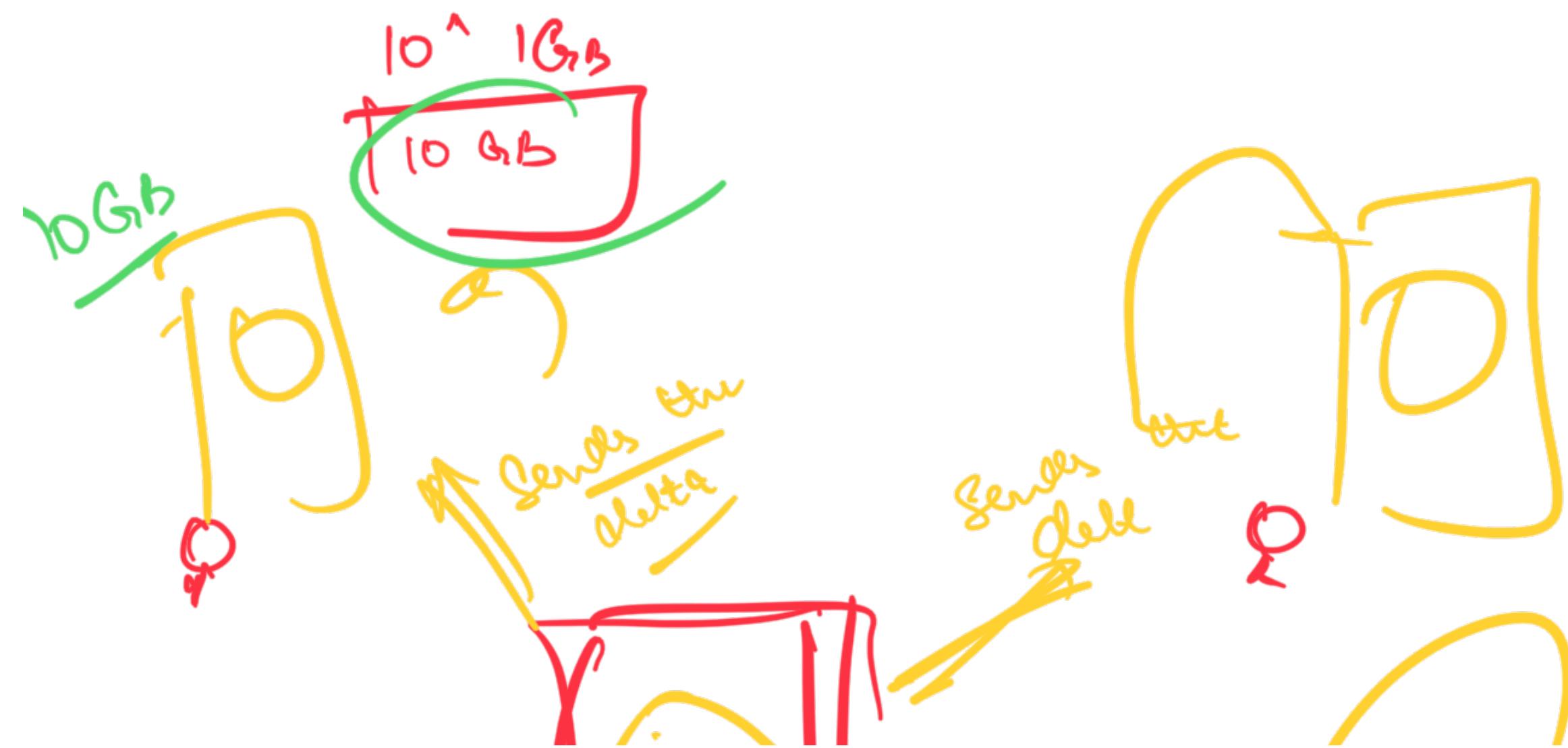
by 1 bullet obj

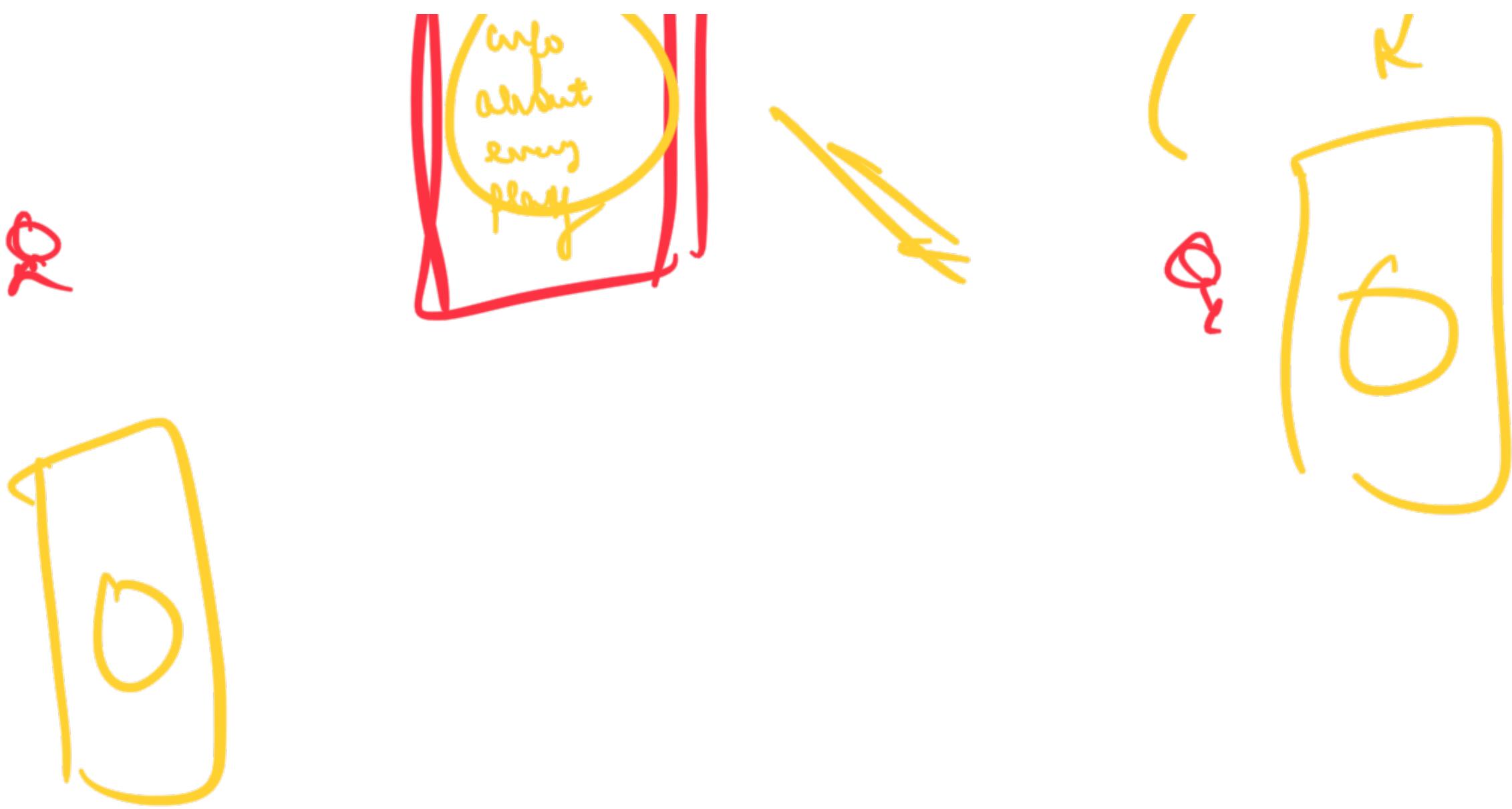
of player
in box

of bullet
per player

Size of 1 bullet
object

$$\frac{100 \times 1000 \times 100 \text{ KB}}{10^6 \times 100 \times 1 \text{ MB}}$$





Flyweight-DP

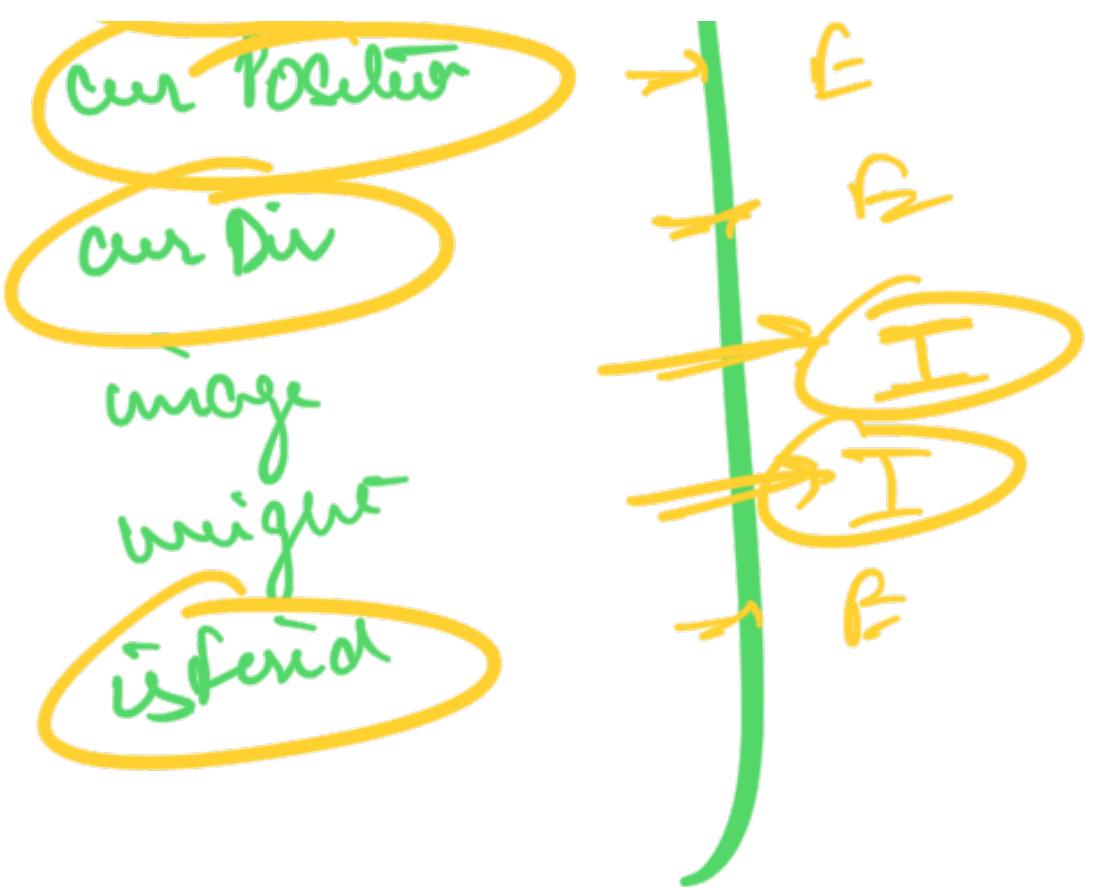
Many times we end up creating close with
• tether or tether

↳ ~~Properties~~
⇒ ① Intrinsic Properties (Going to remain same for all obj of a particular type)

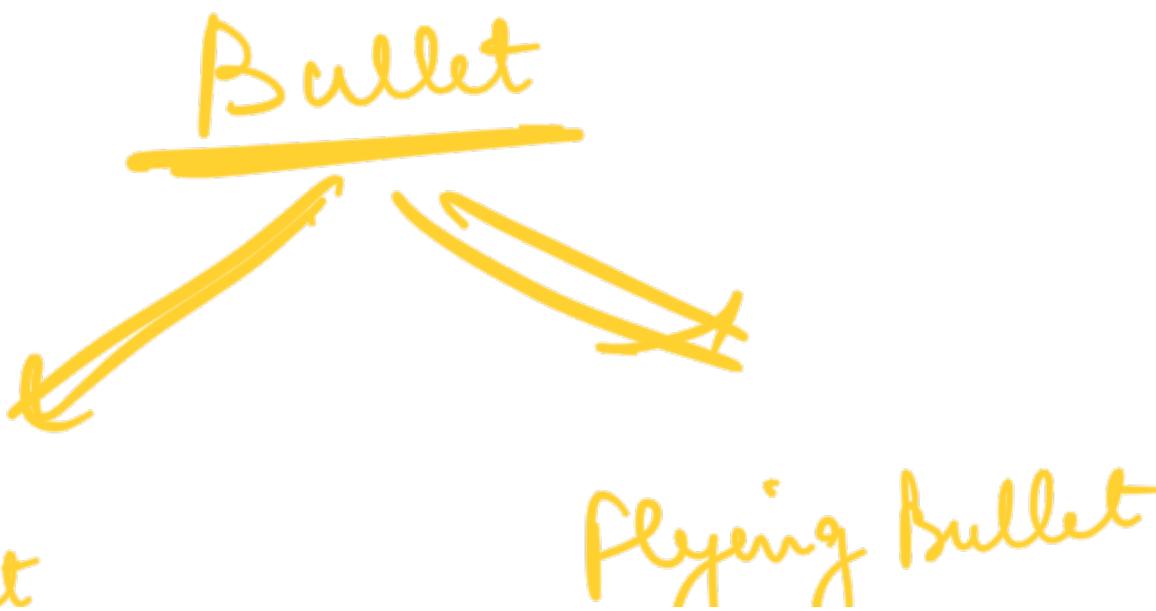
② Extrinsic Properties

That keep on changing based on environment (external forces)



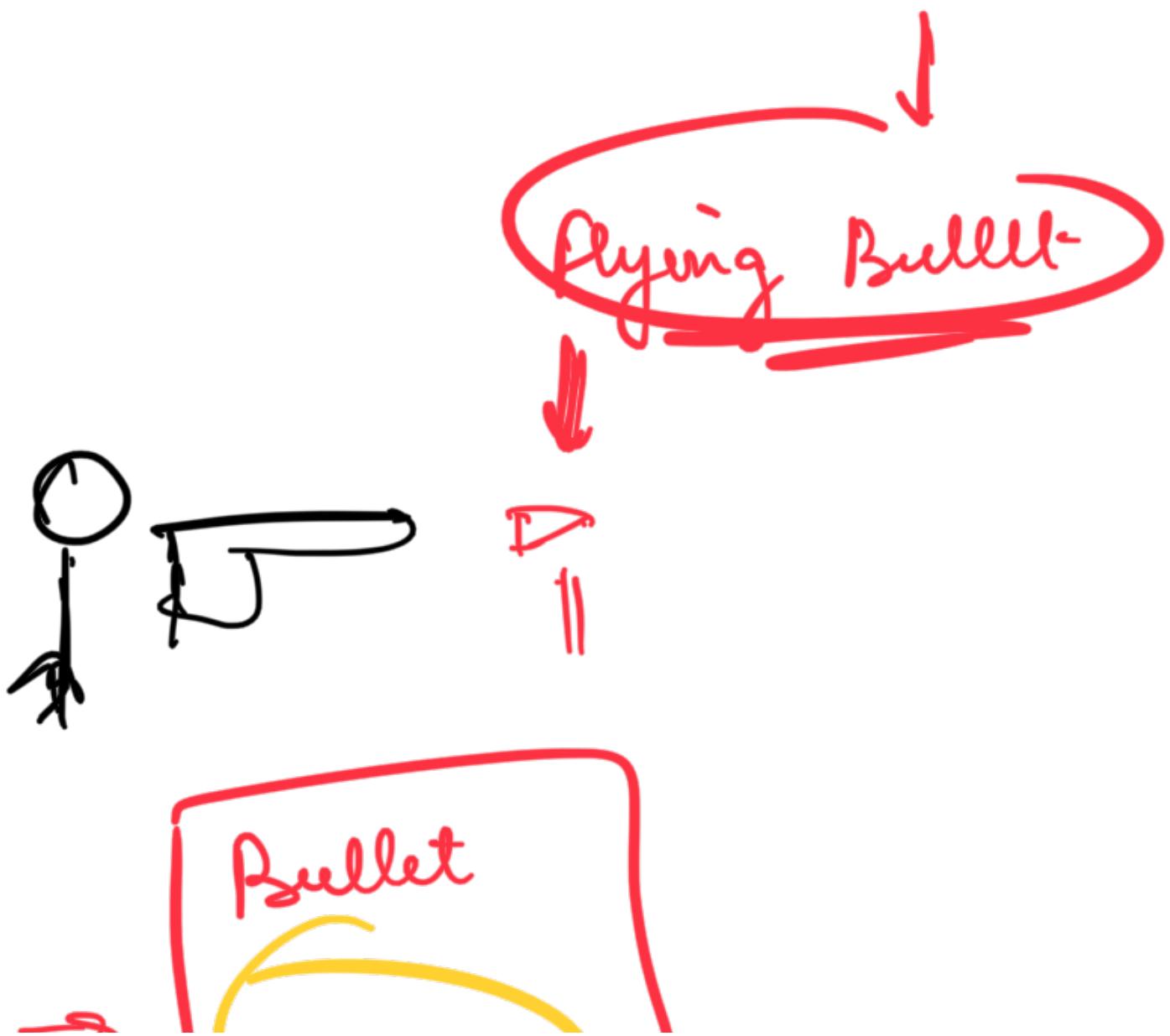


damage On Person = $f(C_{MAX}, \text{cur Speed}, \text{cur Post}, \text{weight})$



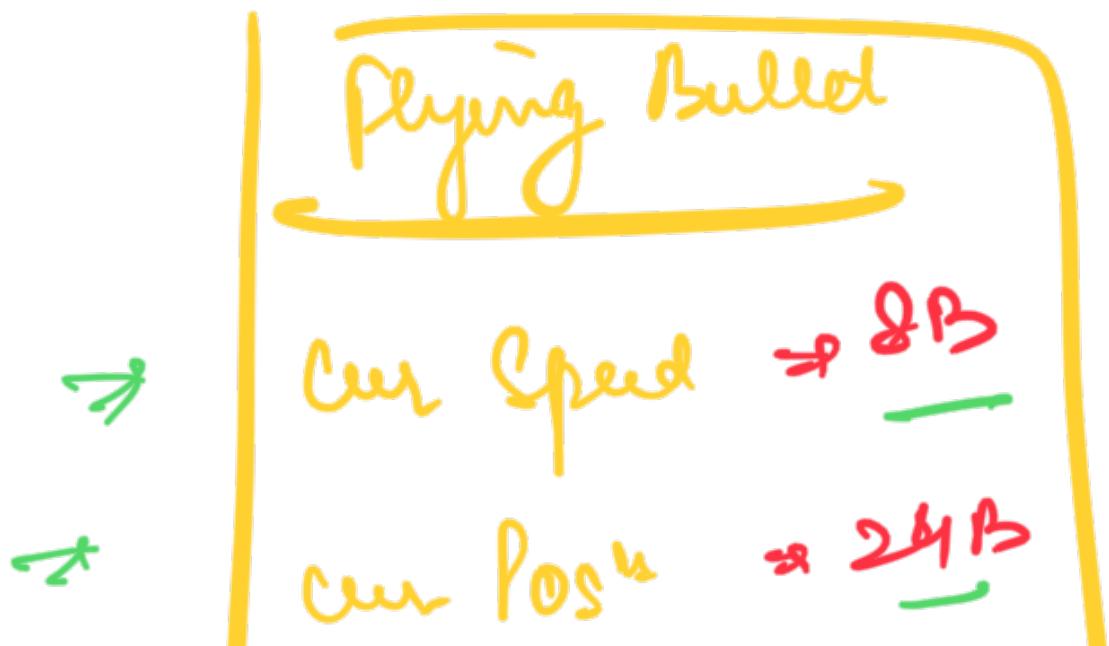
(Only bone
Intrinsic)

Moving Bullet
(Only Extrinsic
bullet)

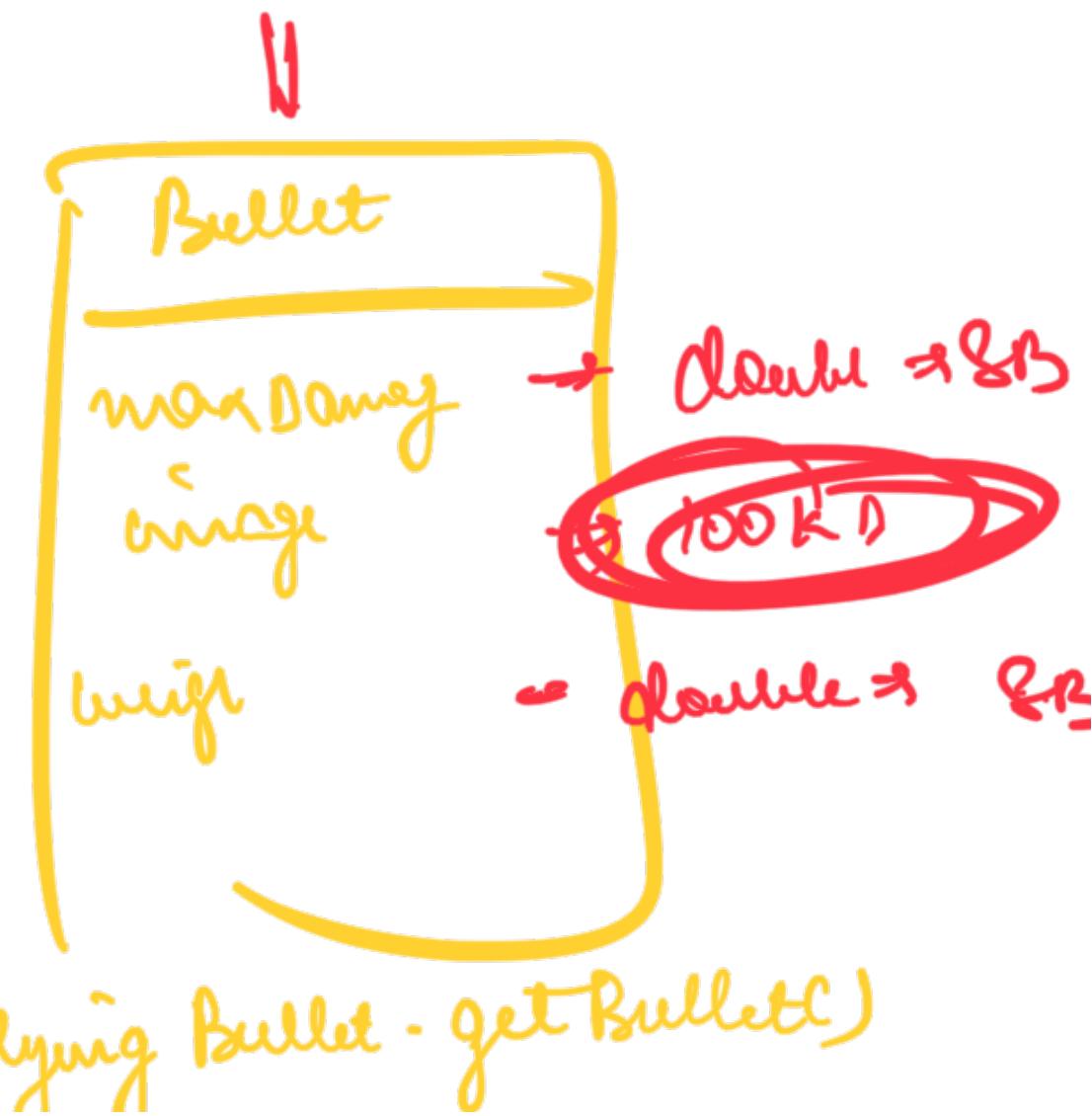


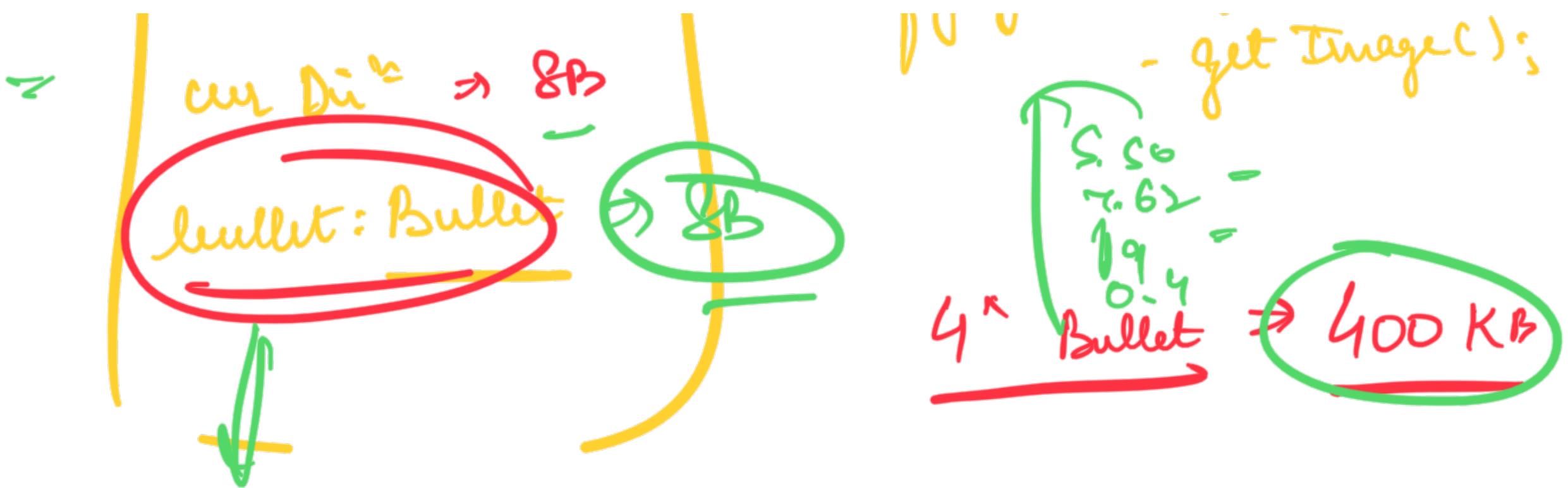


Flying Bullet



If you see an inheritance
Size of obj of child
 \Rightarrow Size of parent attr^t
Size of child attr





Obj in memory \rightarrow 32 Bits \Rightarrow 4B
 64MB \Rightarrow 8B

100¹ 1000¹ Flying Bullet -

100¹ 1000¹ 4B

100 \wedge 48 kB

\rightarrow 4800kB

4.8MB

$$+ 400 \text{ km} \approx 0.4 \text{ M}$$



flying bullet (bullet bullet)

this . bullet = bullet



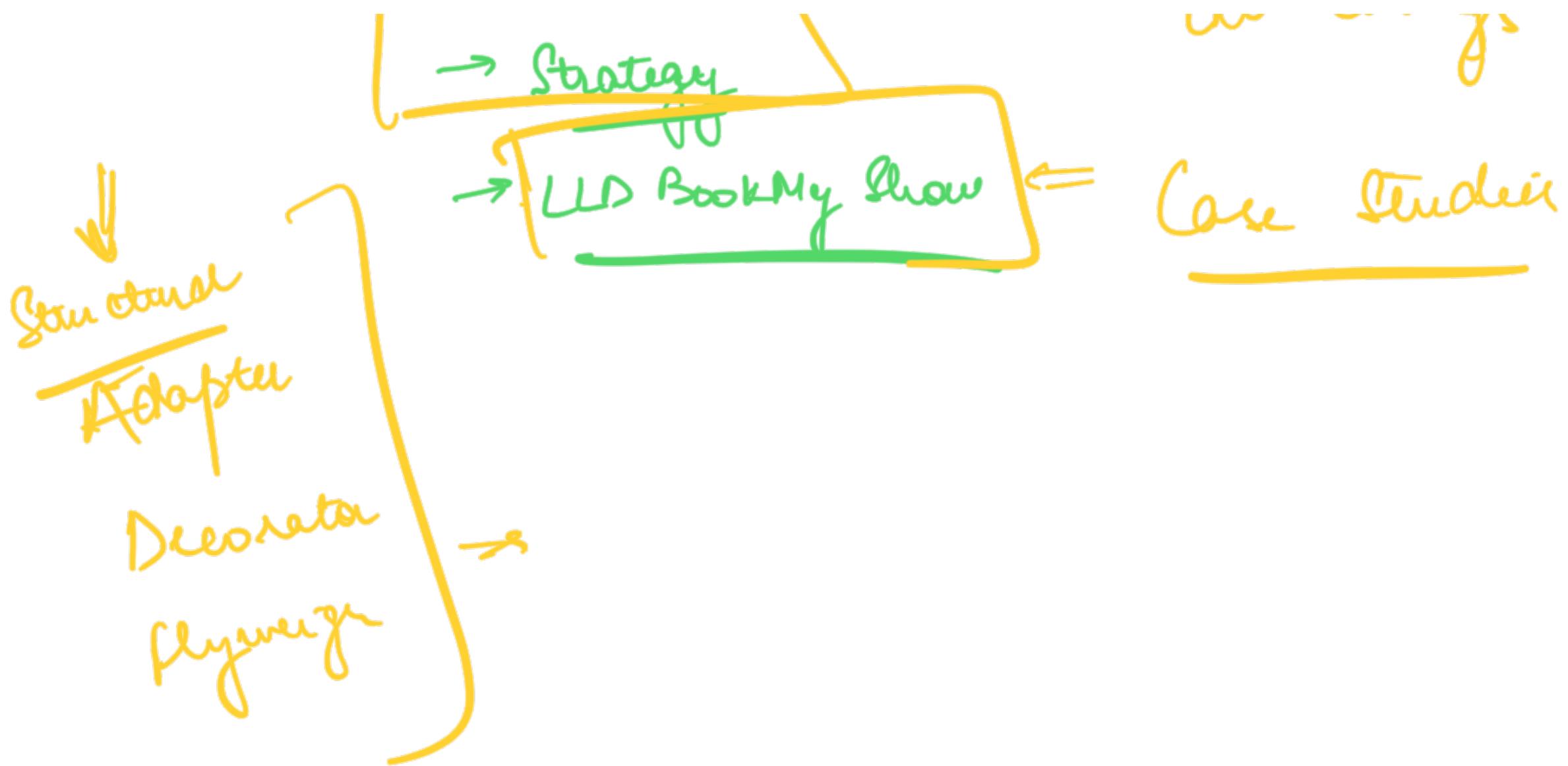
Profiling
Monitor

→ what are the diff b/w
Size of Memory

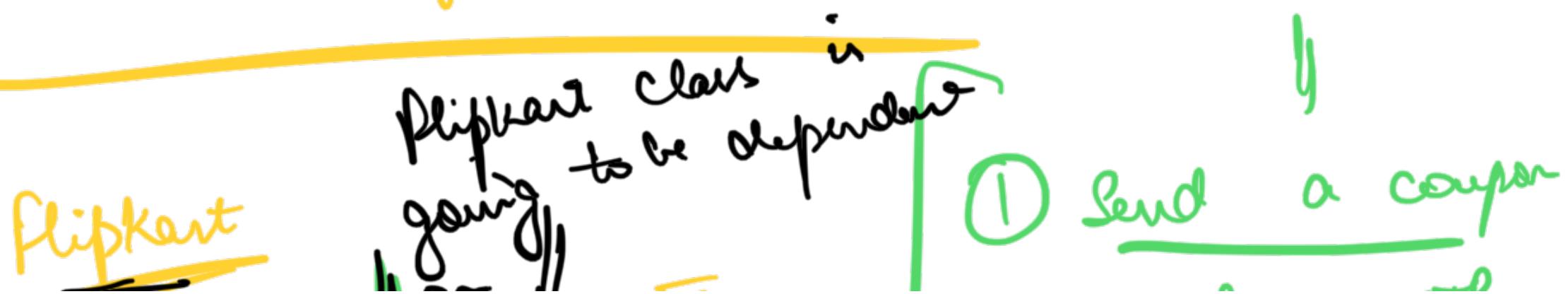
Behavioural Design Pattern

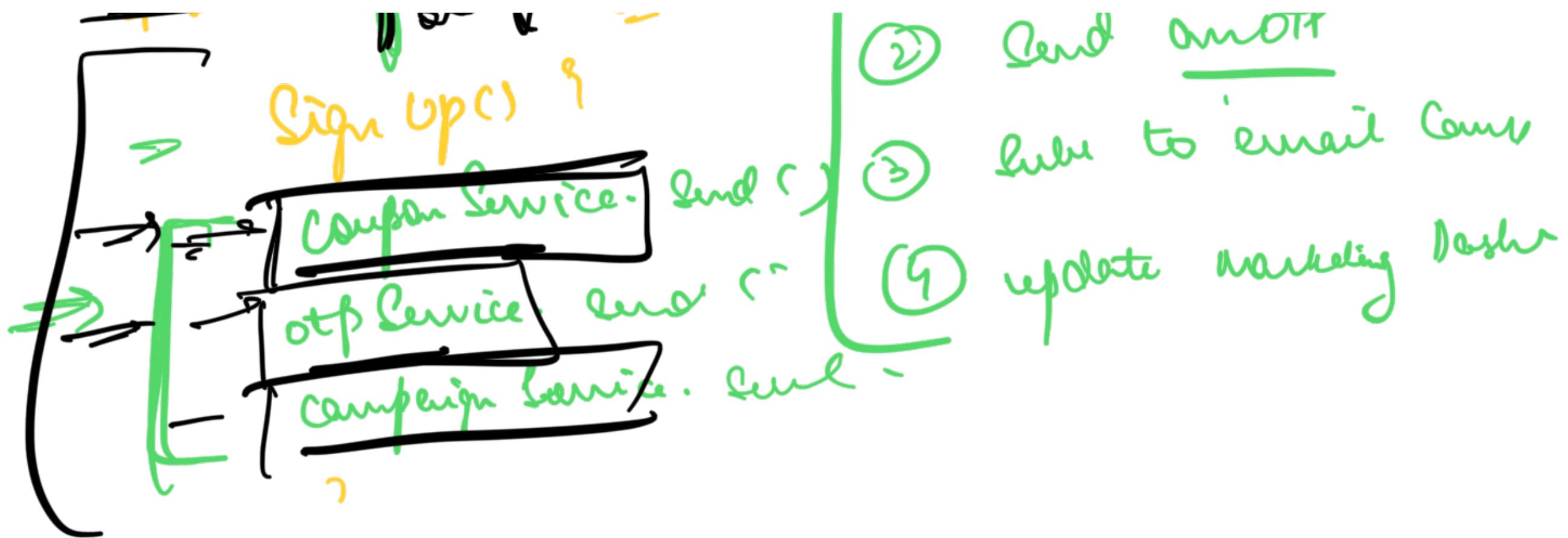
→ Observer

how should classes
perform actions/
no. times



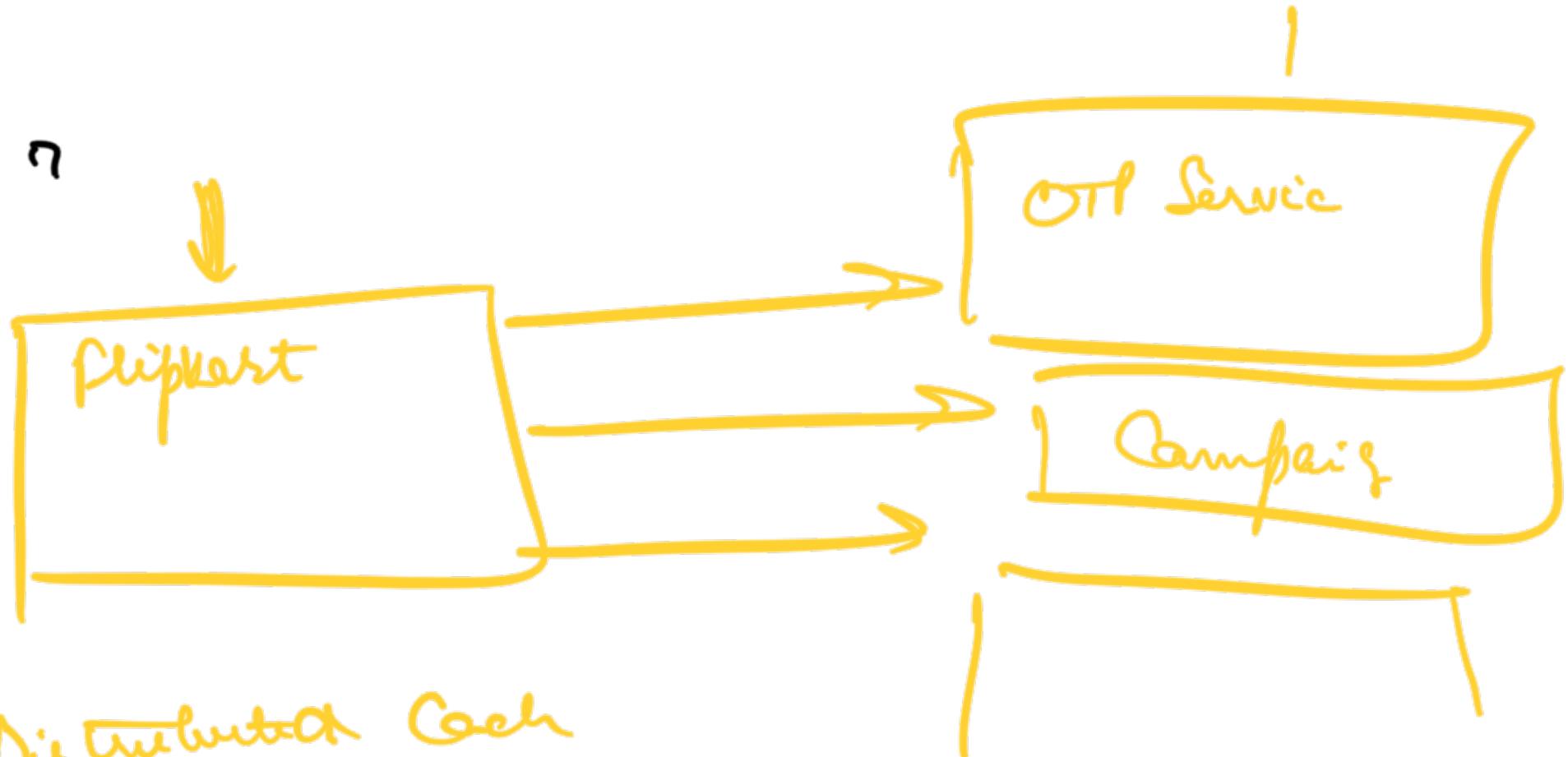
Observer Design Pattern



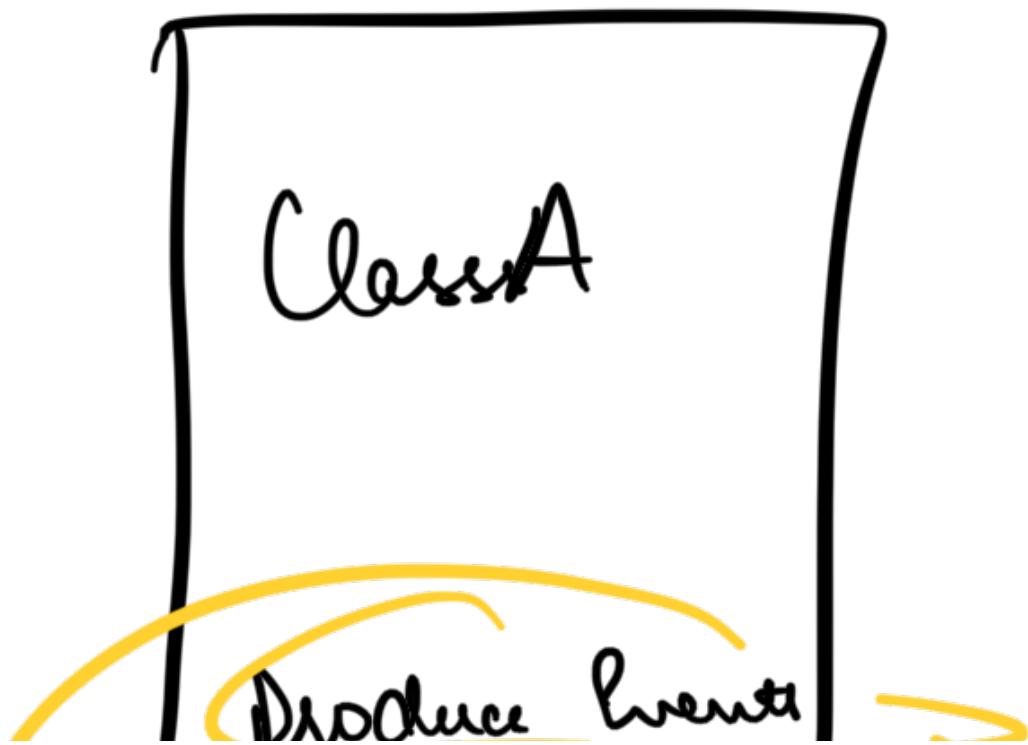


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Coupon Service Coupon Service
 otp Service otp Service
 campaign Service campaign
 Sign Up() Coupon Service .

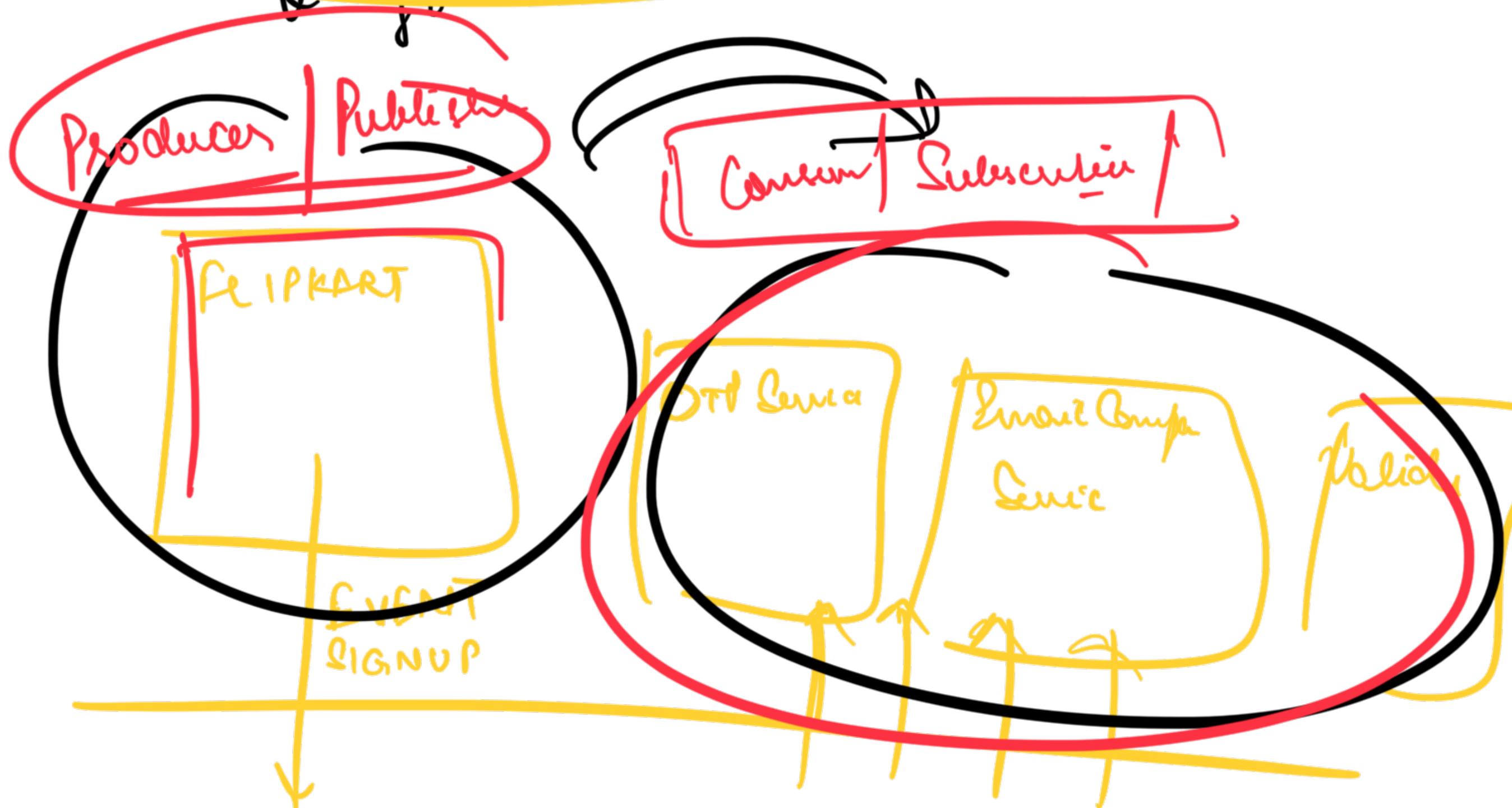


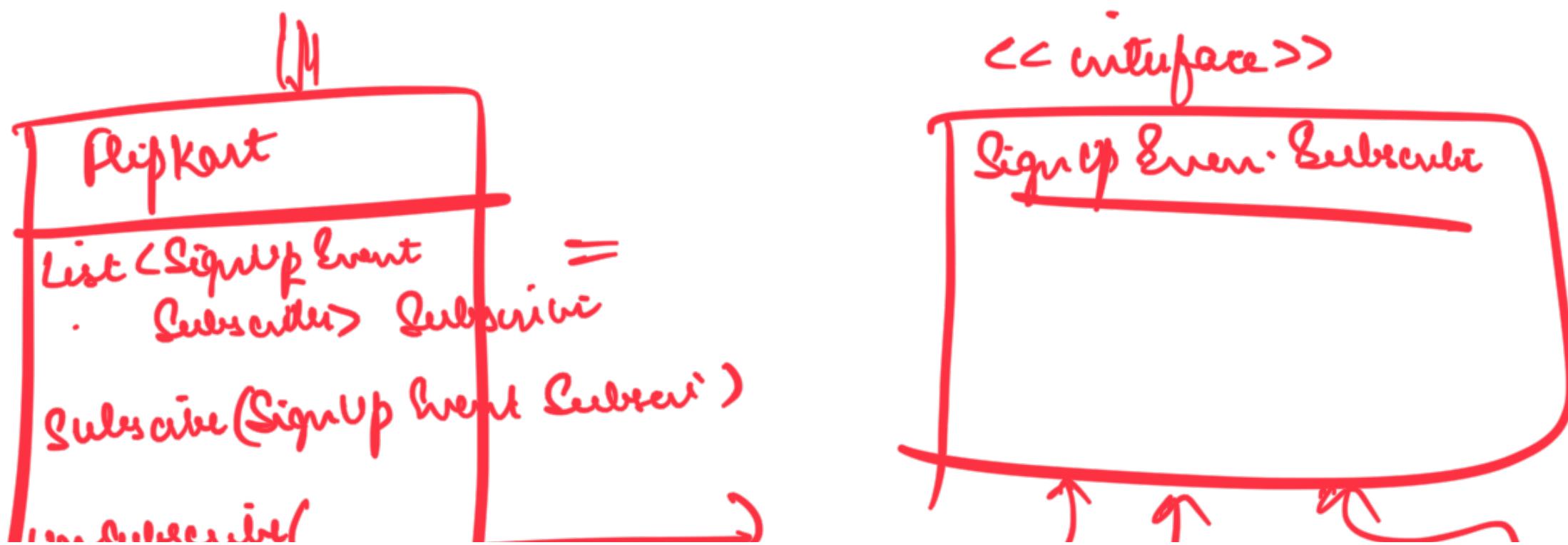
Design a Distributed Cache



~~I that other classes
might want to~~

~~know about to do their
job~~







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list < Signup Event Listener > Signup Event Listener

register SignupEventSub (Signup Even)

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