

Heap, off you go

Plumbr

Who am I

- Nikita Salnikov-Tarnovski
- Founder and Master Developer from **Plumbr**
- We solve performance problems
- @iNikem, <http://github.com/iNikem/jpoint>

JVM and memory

- One of the reasons Java became so popular back in 90s is automatic memory management
- No malloc and free
- You just create objects and let JVM handle all the rest

Garbage goes to Heap



Garbage Collector



Garbage Collector

- A subsystem of JVM
- He handles garbage
- In a “transparent” way
- Or so they thought

When much is too much

- If you have too much garbage, cleaning it is expensive
- More objects - more time to clean

Solution?

- Litter where no one sees :)
- Off the heap
- Which means in native memory

Why is this good?

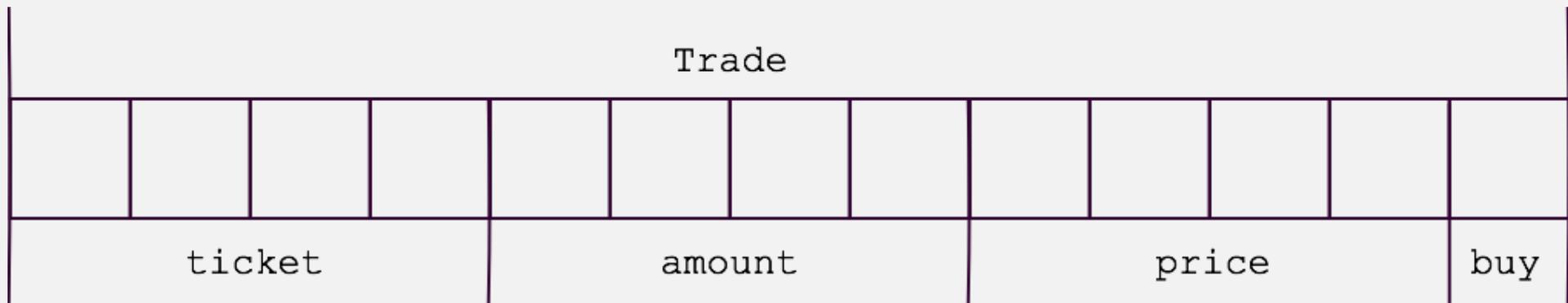
- You can throw things around all the way you want
- And no one will say a word

But...

- You still have to clean things yourself eventually
- You have to break your objects into tiny flat pieces

Flat object

```
public class Trade {  
    public int ticket;  
    public int amount;  
    public int price;  
    public boolean buy;  
}
```



Stop talking! Show me the code!

- Demo time

Solving performance problems is hard.
We don't think it needs to be.

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