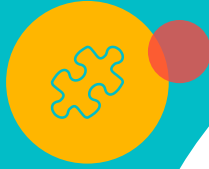


Chain of Responsibility

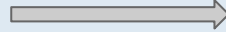
Anqi Wu



PROBLEM

- Need multiple handlers
- Request-handler mappings or Handler relationship
- Do not know which receivers handle the request
- Multiple requests - Inefficient

Client



Request

Handler 1

Handler 2

Handler 3

Handler 4

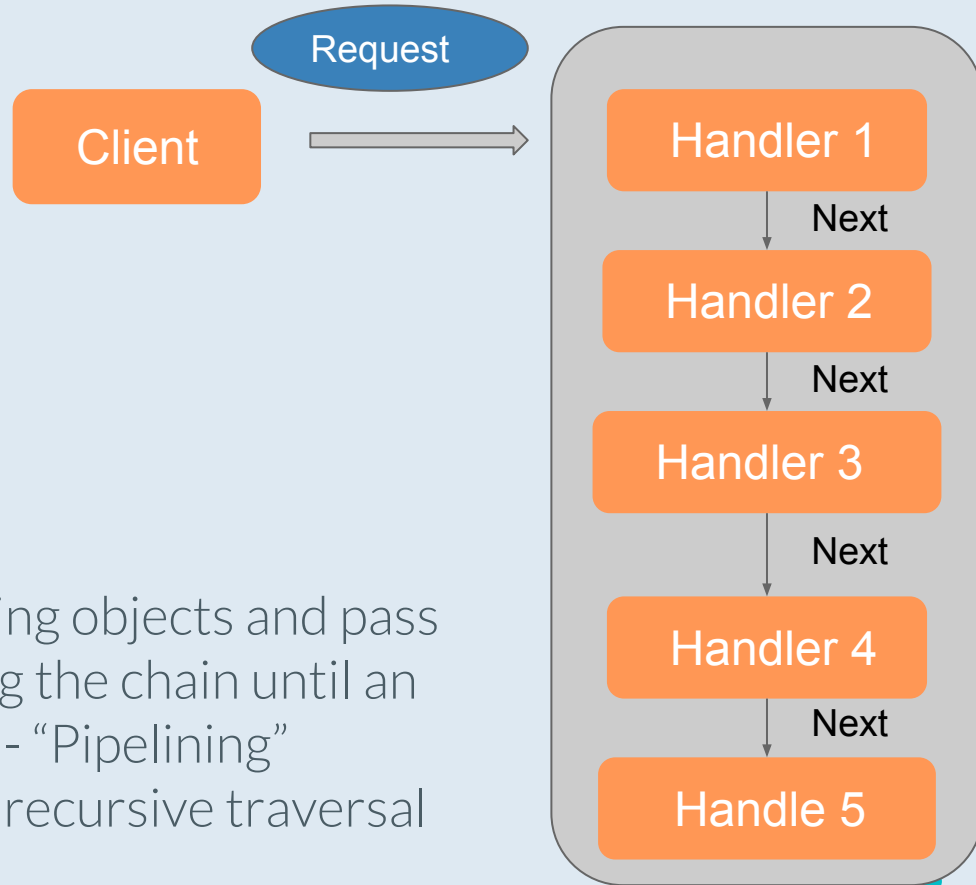


Handler n



SOLUTION:

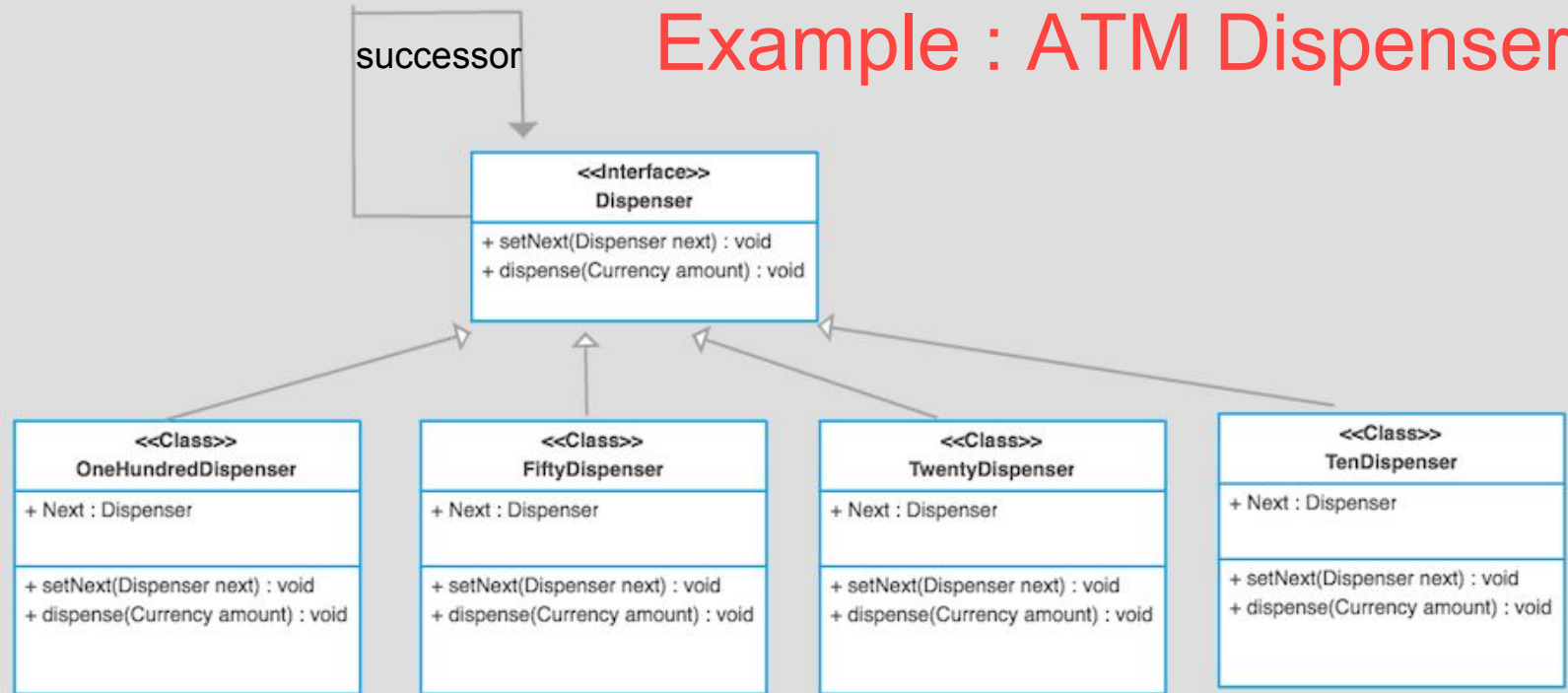
- Chain the receiving objects and pass any request along the chain until an object handles it - “Pipelining”
- A linked list with recursive traversal



Chain of Responsibility

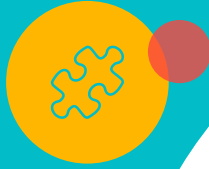
- Decouple the senders and receivers by giving multiple objects a chance to handle the request
- A single reference from the sender to the head of the chain
- Each receiver has a single reference to its immediate successor in the chain
- Java exception handling mechanism
- Cocoa touch

Example : ATM Dispenser



IMPLEMENTATION

ATM Dispenser



Benefits & Pitfalls



Reduced
Coupling

Simply
Interconnection

Flexibility in
assigning the
responsibilities
to objects

No guarantee
the request
would be
handled /
Broken chain





Thanks!

Any questions?

