

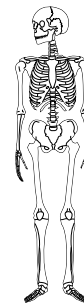
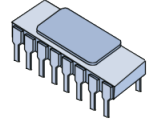
Microsoft
.net



Architecture des Systèmes d'Information



Framework Architecture



Traduction en cours

Framework



- "A **software framework** is an abstraction in which software providing generic functionality can be selectively changed by user code, thus providing application specific software. It is a collection of software libraries providing a defined application programming interface (API)".

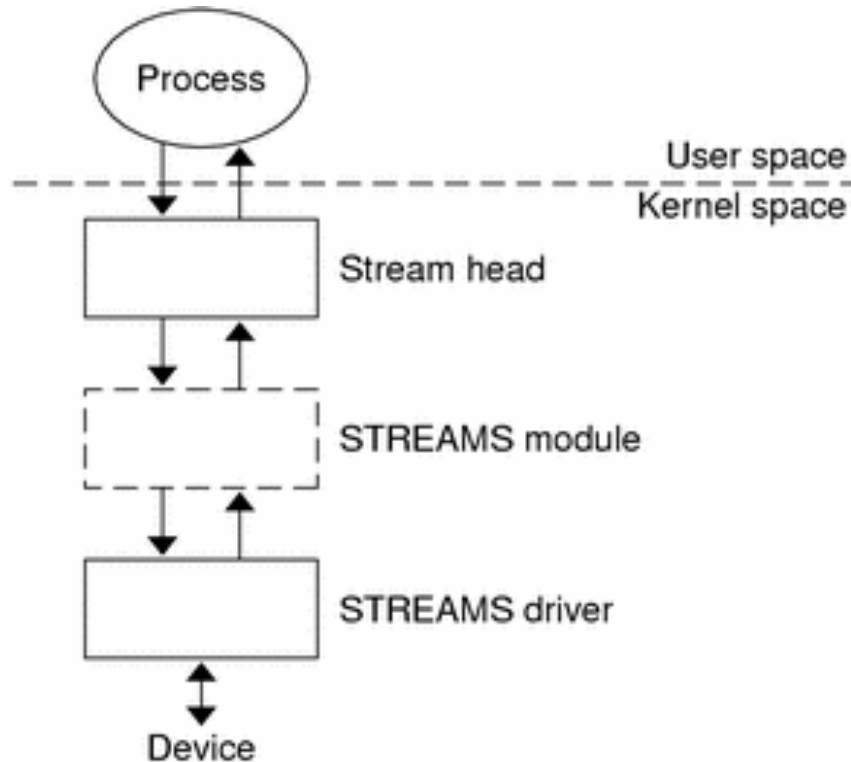
- AKA :
 - Middleware
 - Kit
 - Foundation software
 - Adaptation layer
 - ...

Well know framework

- .NET Framework
- J2EE, JEE
- COCOA
- STREAMS Unix System V driver framework.
- Motif graphical user interface (GUI) toolkit.



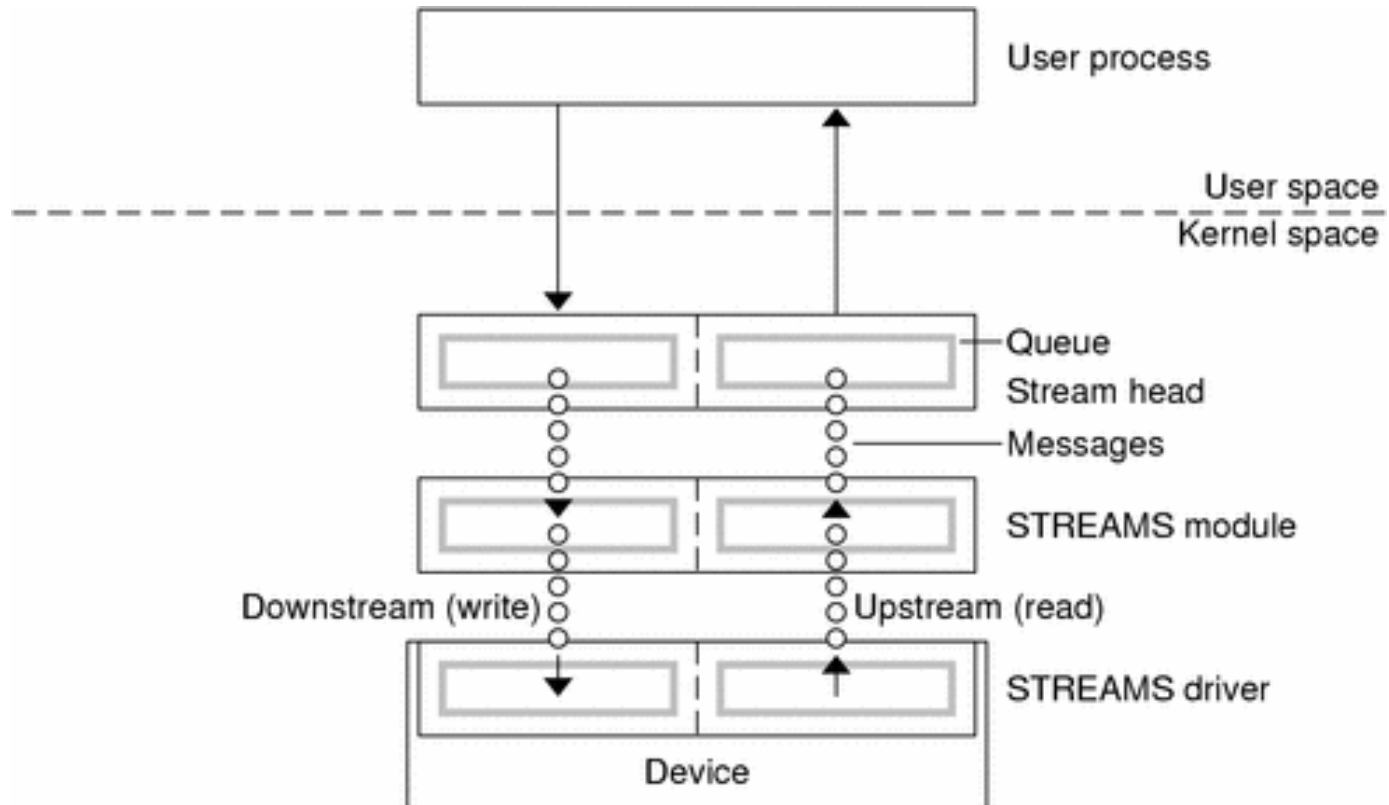
Streams System V



<http://docs.sun.com/app/docs/doc/806-6546/part1-1?a=view>

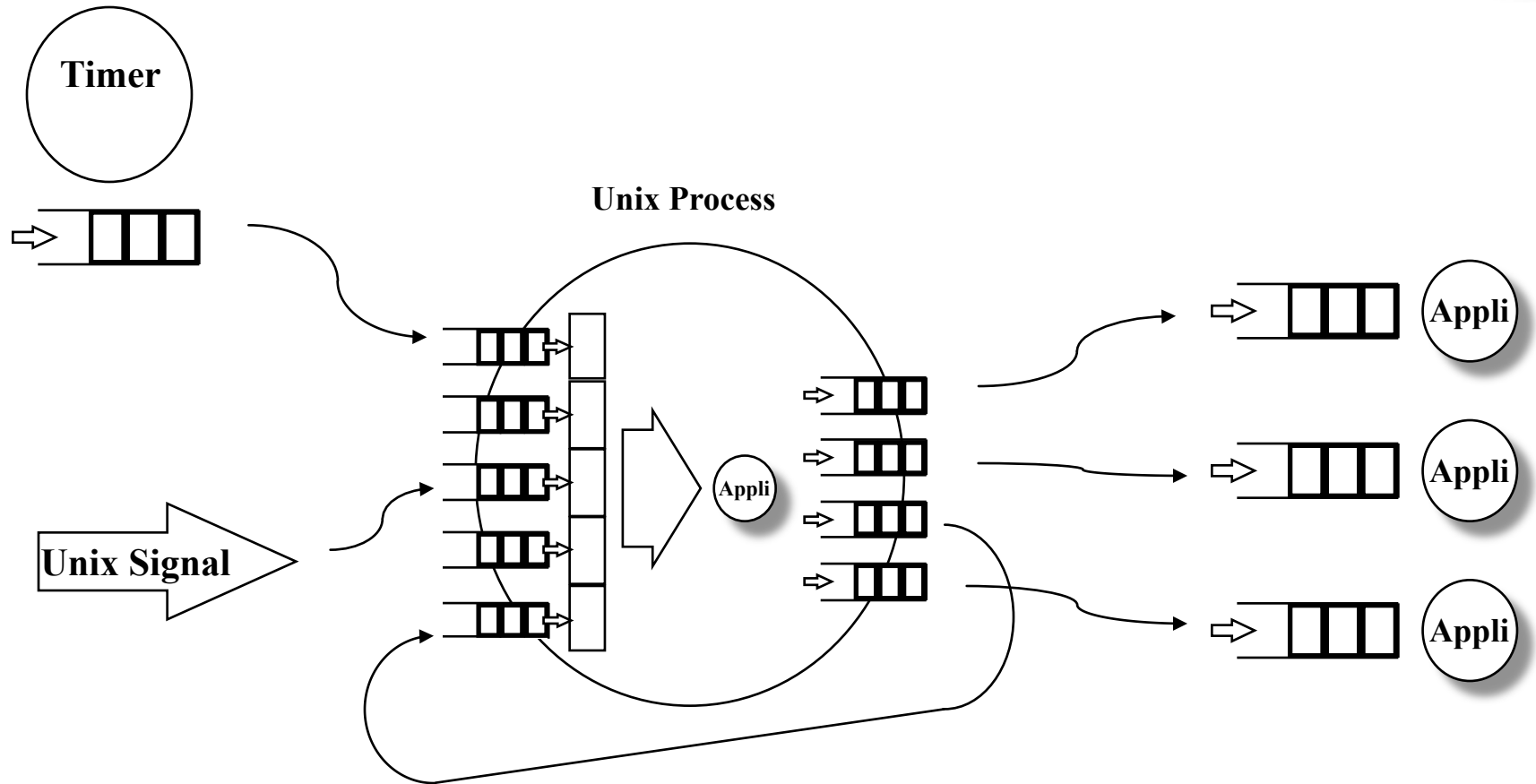


Streams System V : Queue



<http://docs.sun.com/app/docs/doc/806-6546/part1-1?a=view>

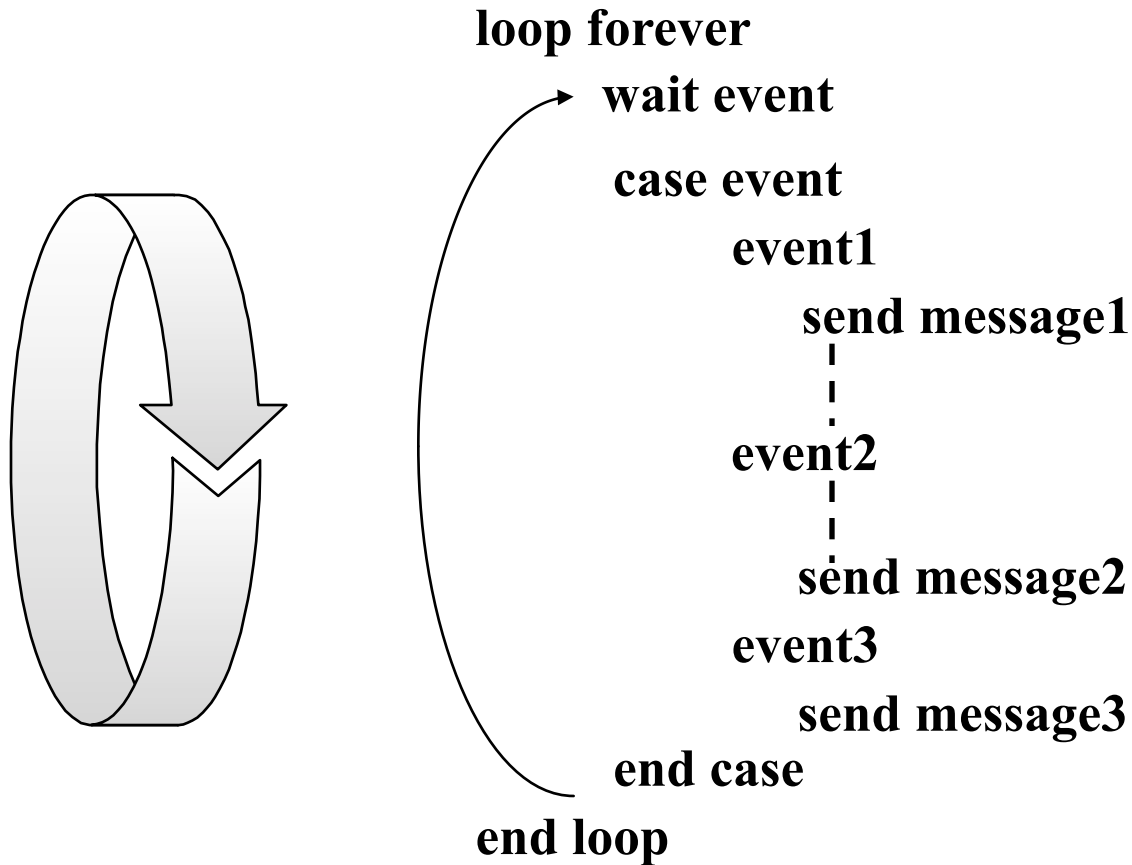
UNIX socket architecture : Message Passing





Application Software Architecture

Main Loop Event Processing

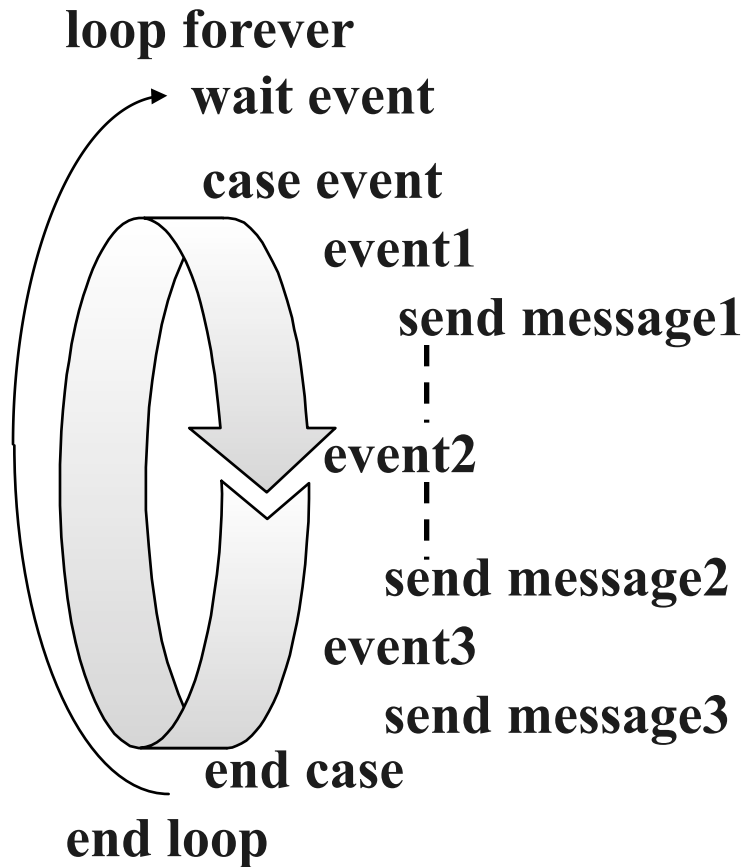


Asynchronous

Application Software Architecture



Loop Event Processing



Asynchronous

Sequential Event Processing

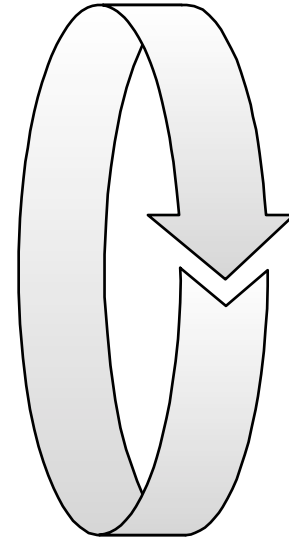
```
begin
    wait event1
    send message1
    |
    |
    wait event2
    send message2
    |
    |
    wait event3
    send message3
end
```

Synchronous

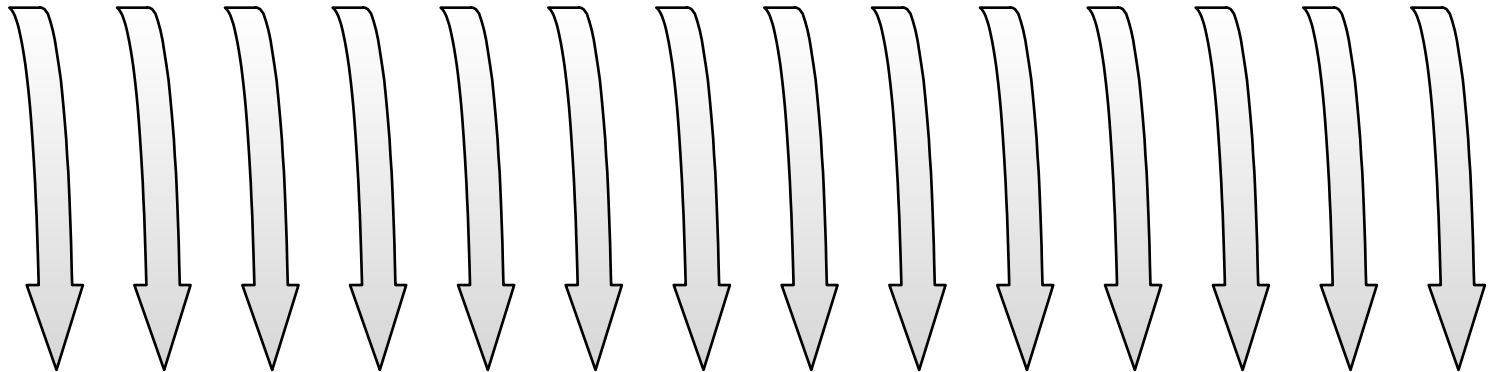
Synchrony and Threading



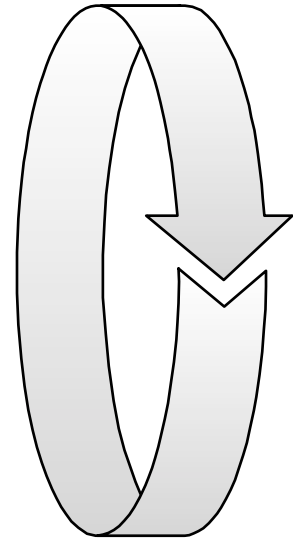
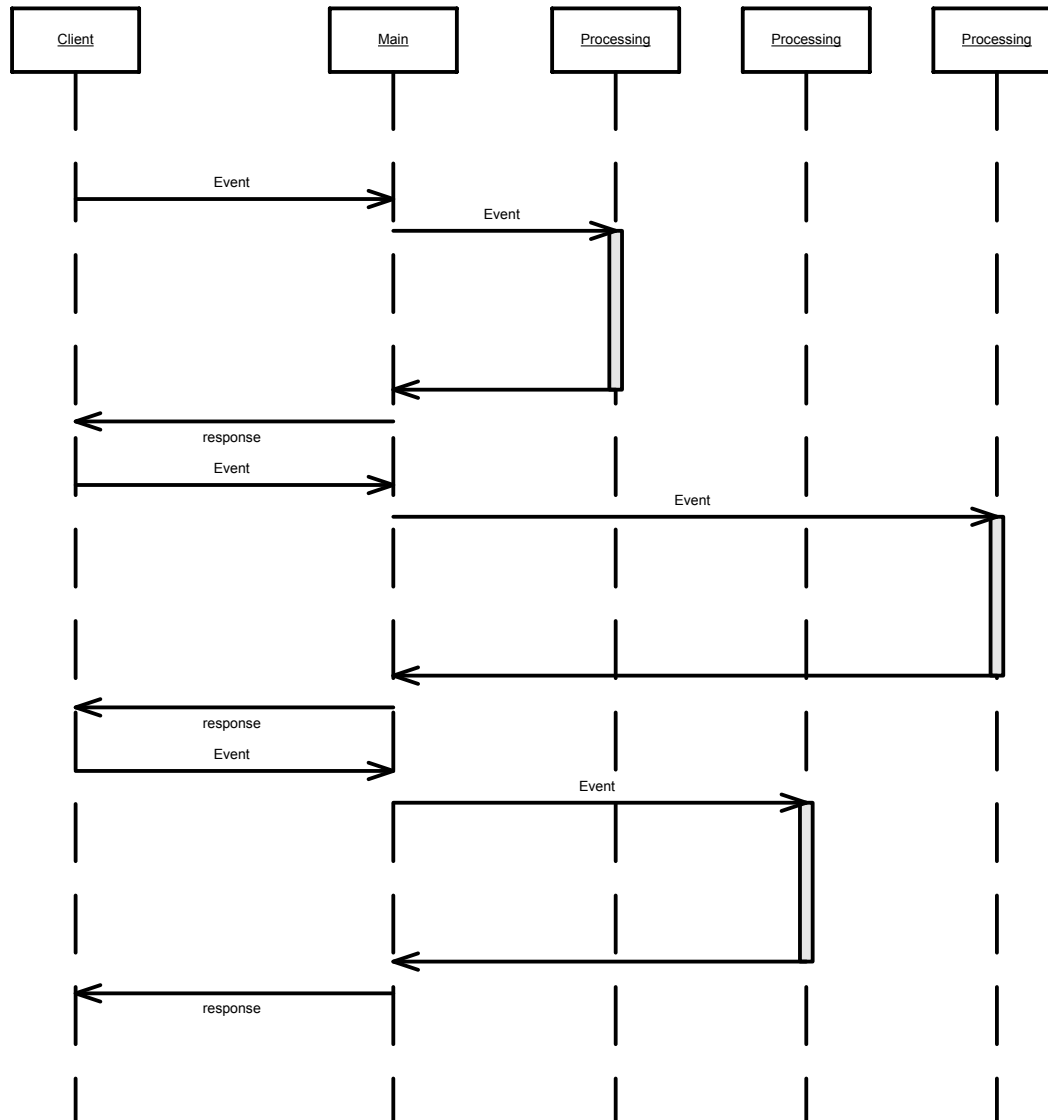
- Asynchronous : Mono thread



- Synchronous : Multi Thread

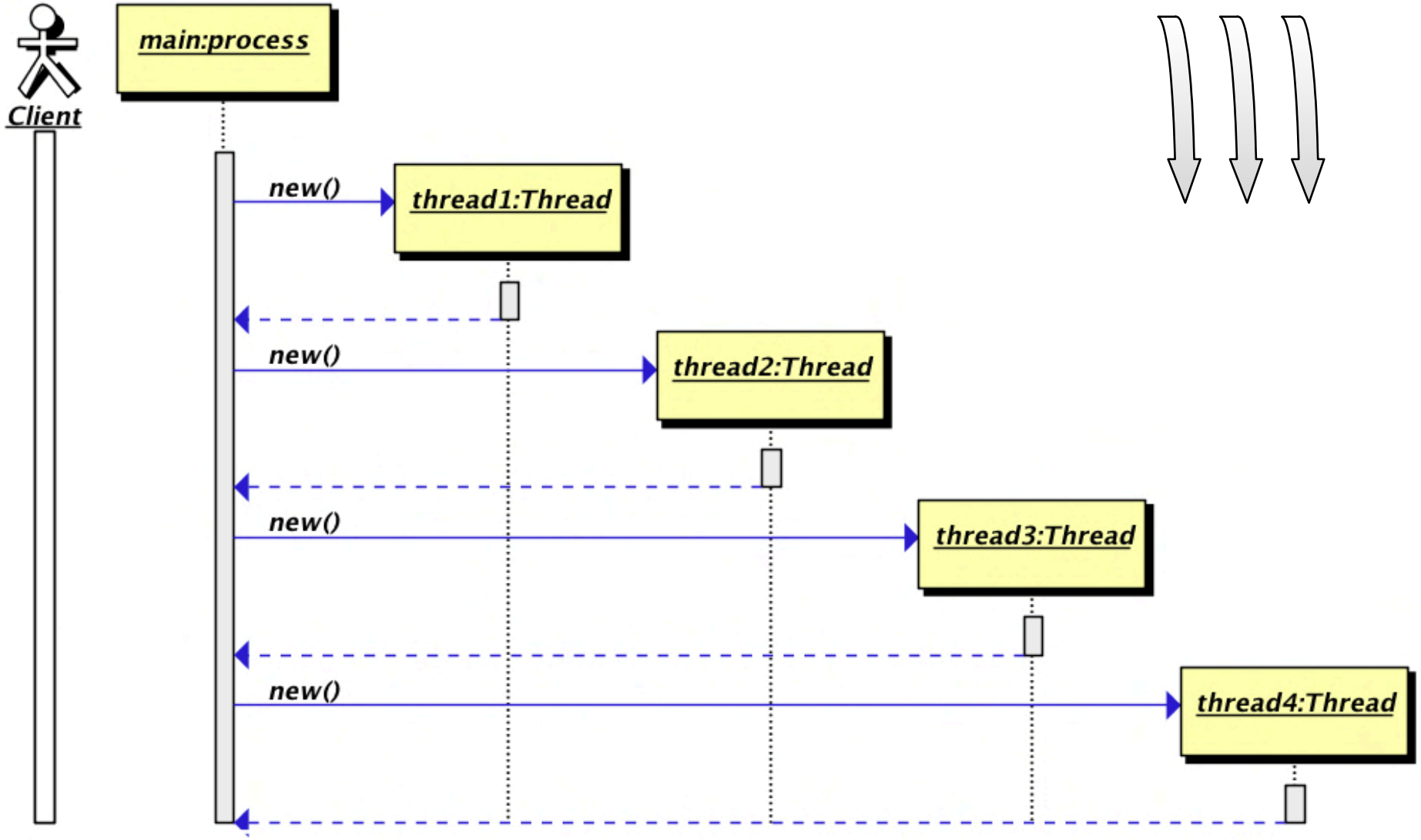


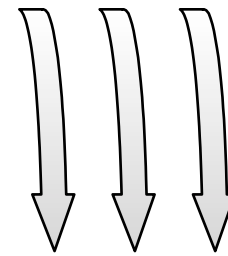
Software Application "Structure"



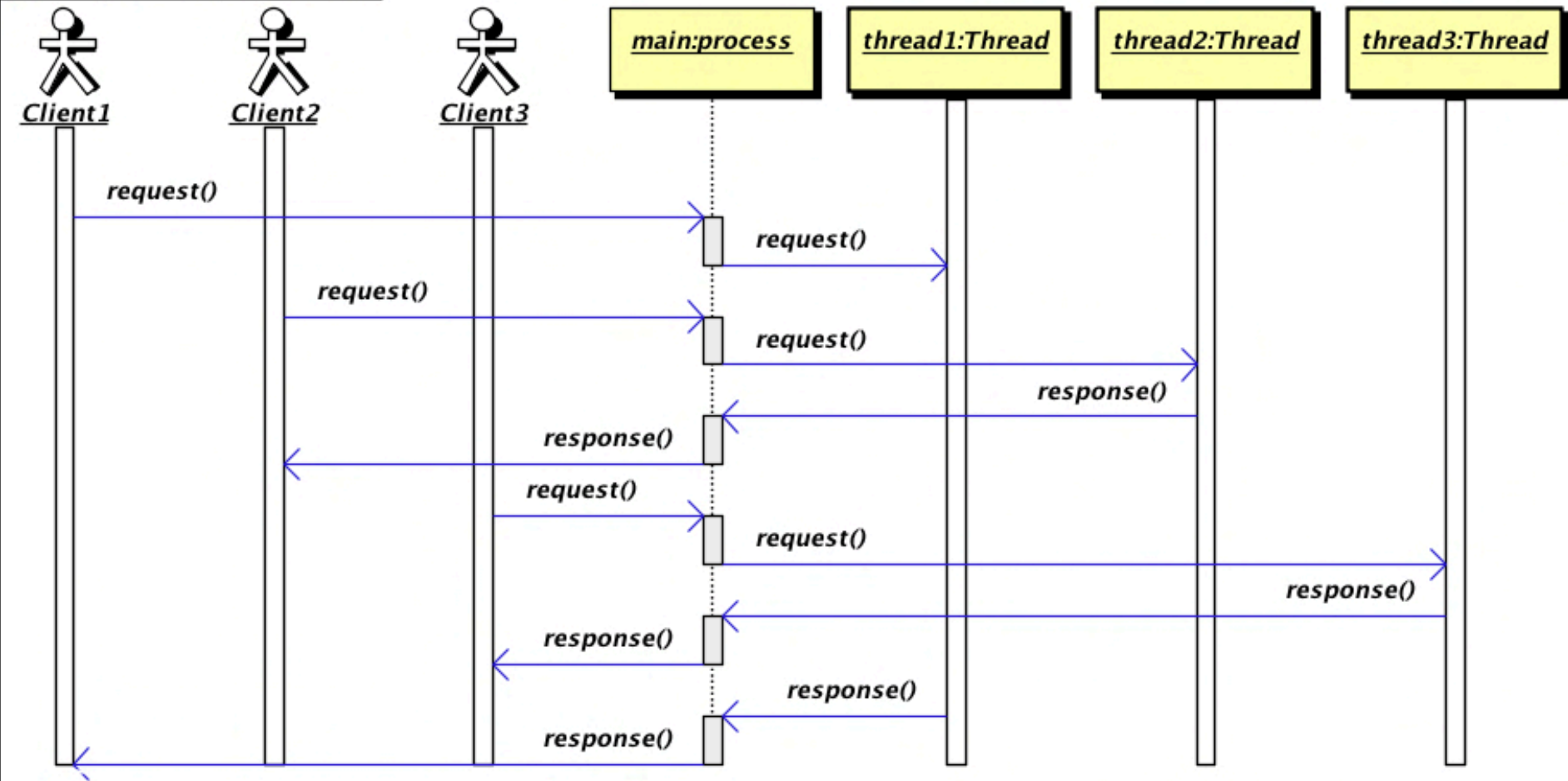


Thread Pool Creation





Interceptor filter Decorator

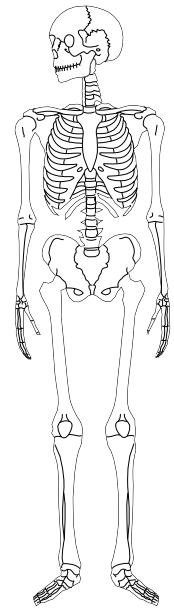




Component Dependency

- Server side Call-backs population
 - Inheritance
 - Delegation
 - POJO
- Application side technical code calls.
 - Trace
 - Performance
 - Transaction
 - Security
- Client side dependency resolution.
 - Container
 - Interceptor

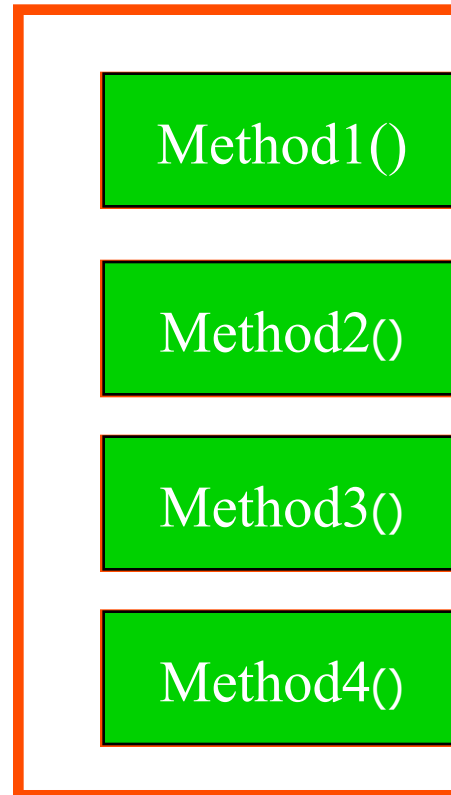
Server Side Calls back





Call back (Hollywood pattern)

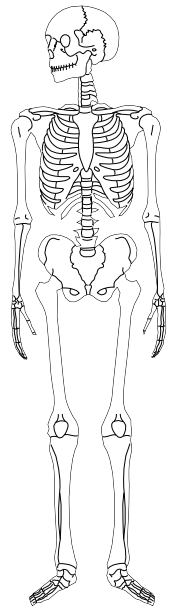
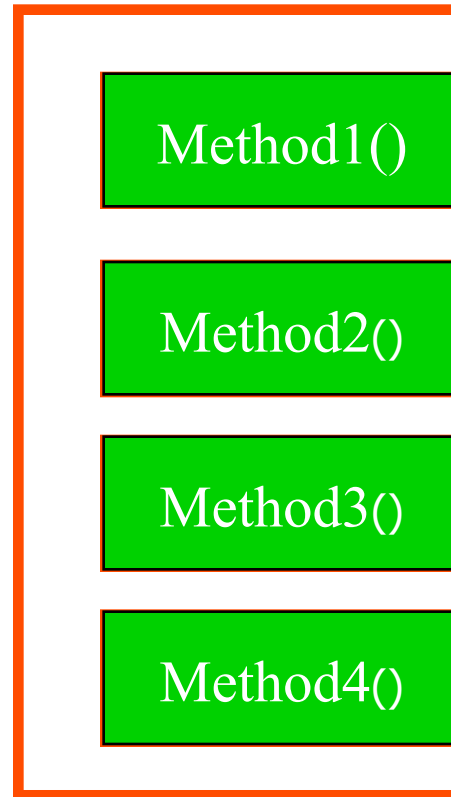
Container



Call back (Hollywood pattern) : skeleton



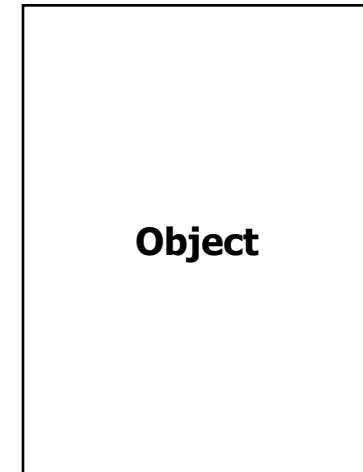
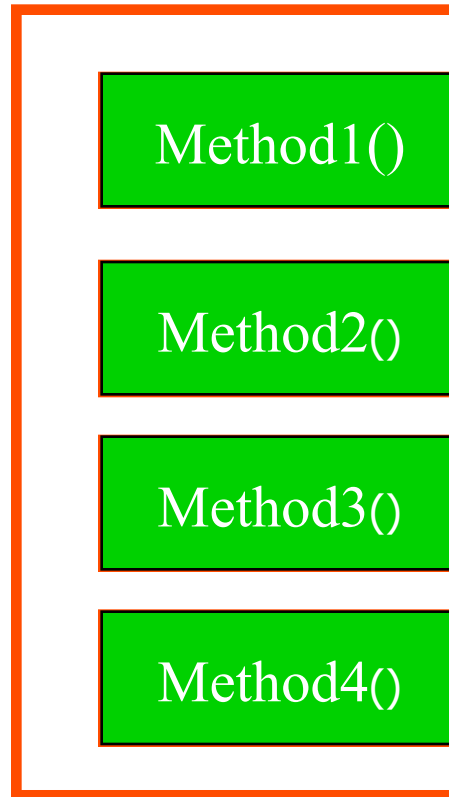
Container



Call back (Hollywood pattern) : skeleton



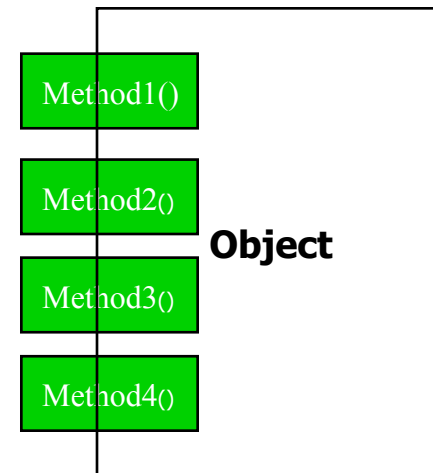
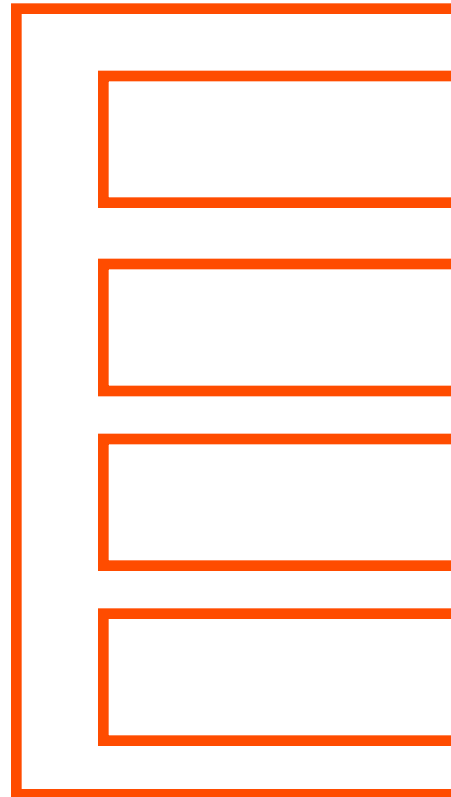
Container



Call back (Hollywood pattern) : skeleton



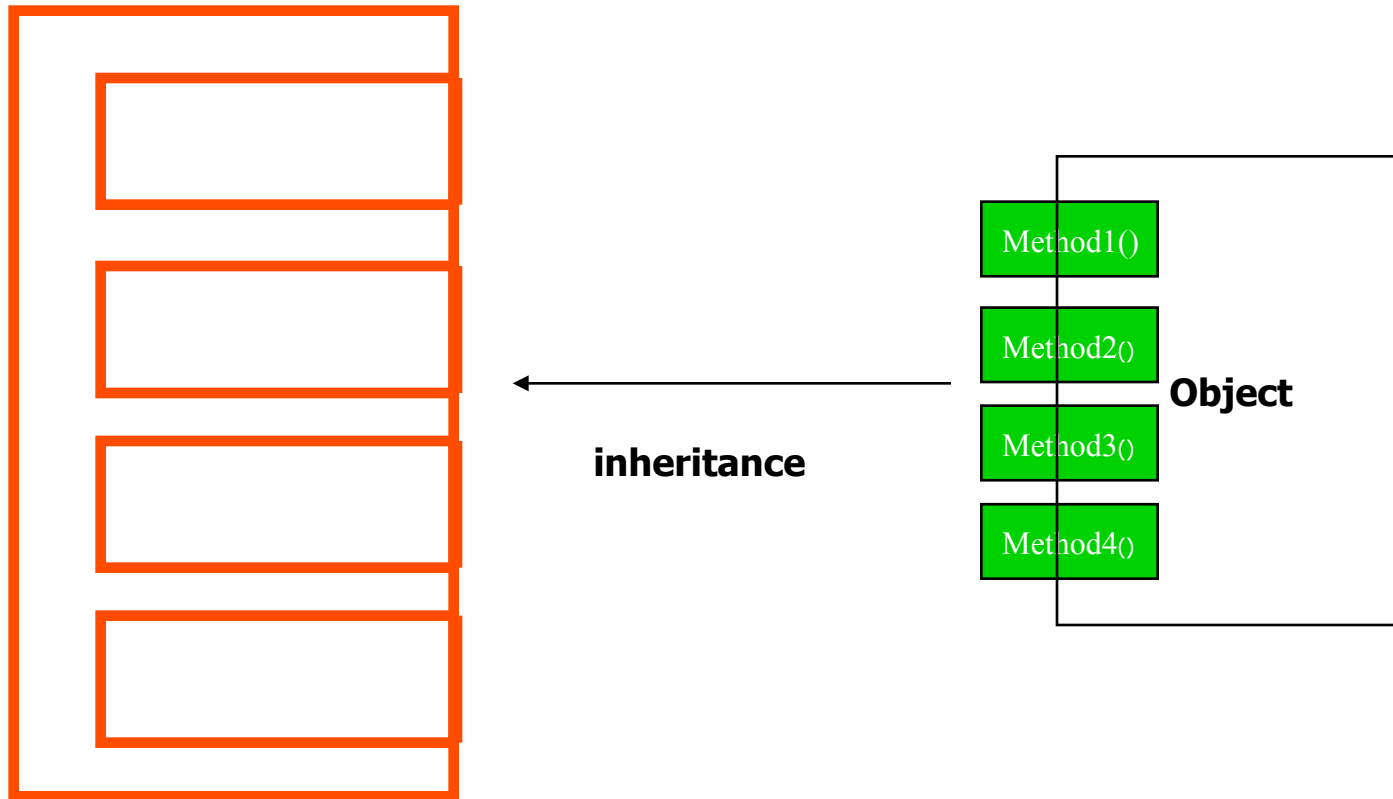
Container



Call back (Hollywood pattern) : skeleton



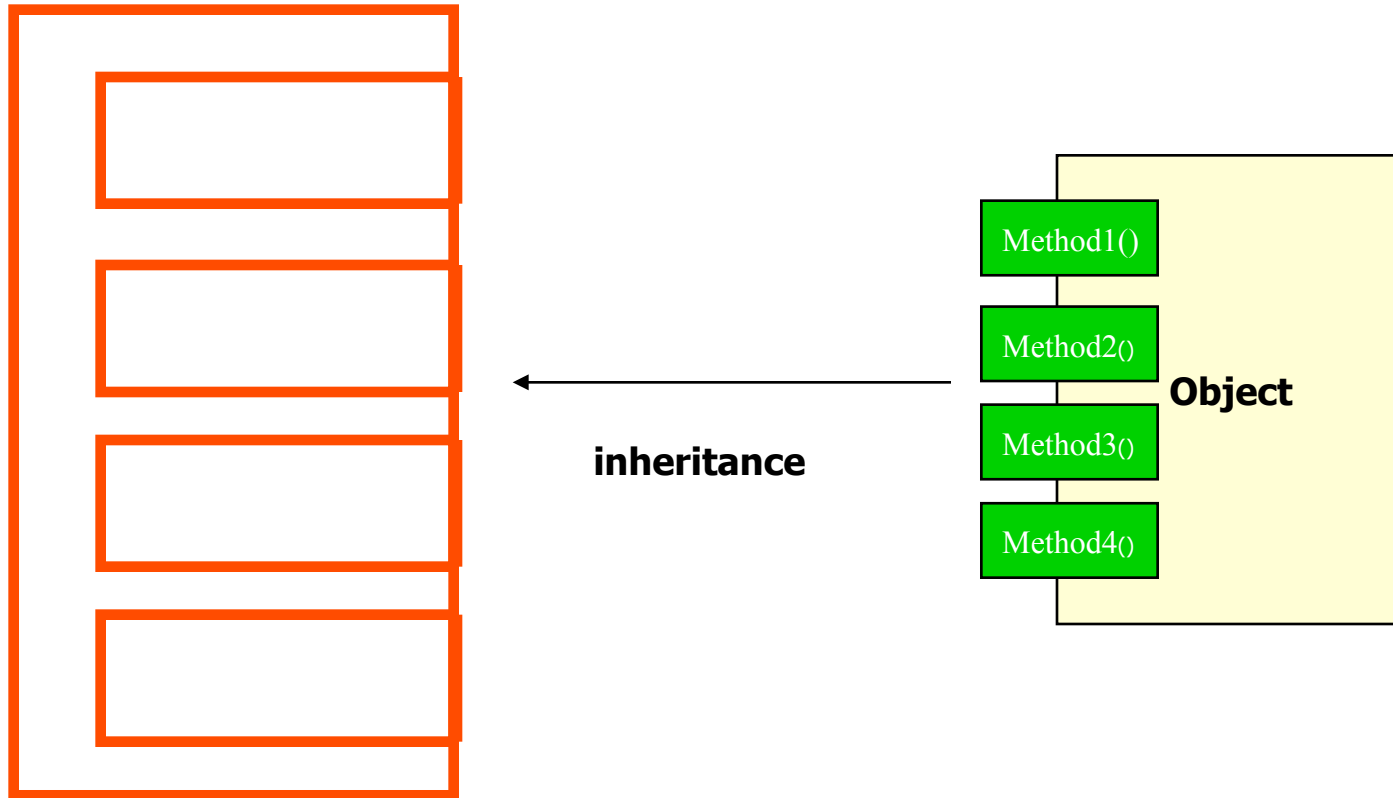
Container



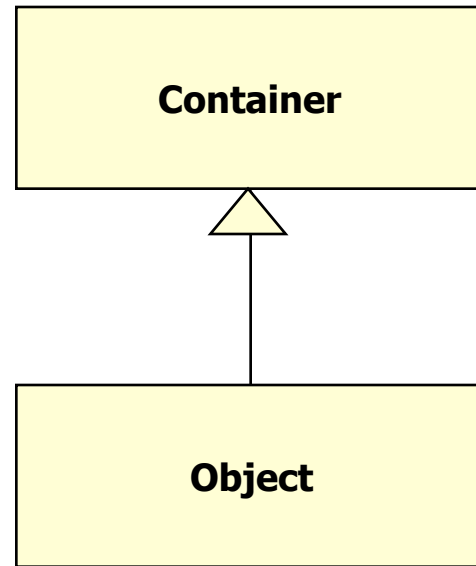
Call back (Hollywood pattern) : skeleton



Container



Inerithance



Delegation



Container

