

Aspect-Oriented Programming

OO
↳ programming
encapsulating functionality
into components

→ localizing
references to implementation
details

Still aspects of program
that are referenced throughout
source code

↳ non-functional specifications

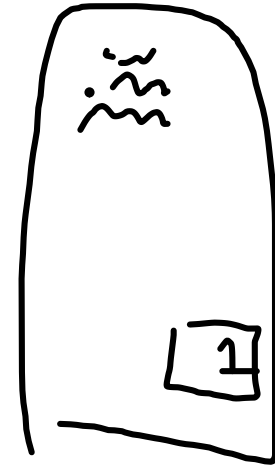
efficiency
responsiveness;

security
lossing

monitoring

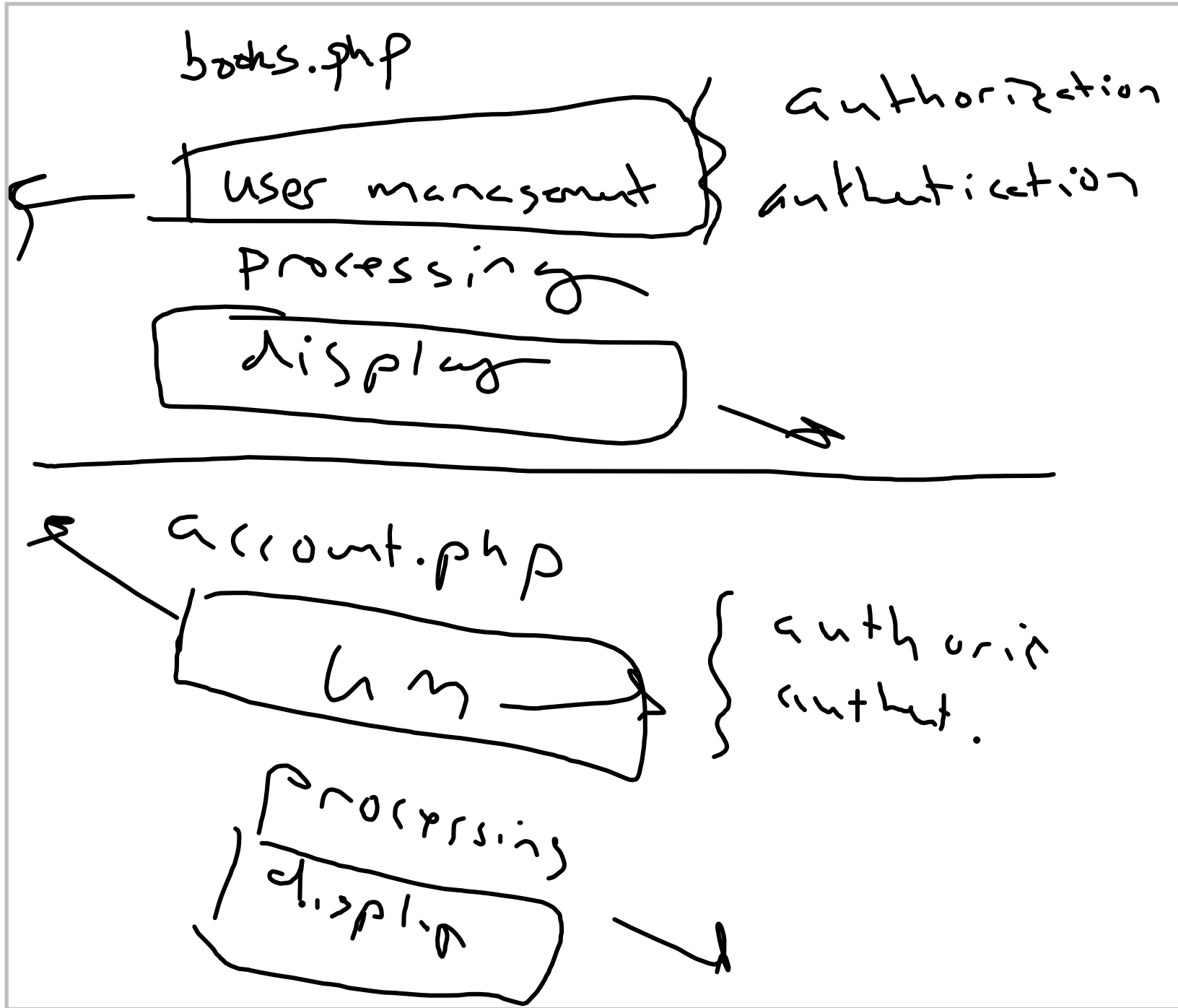
Web Framework

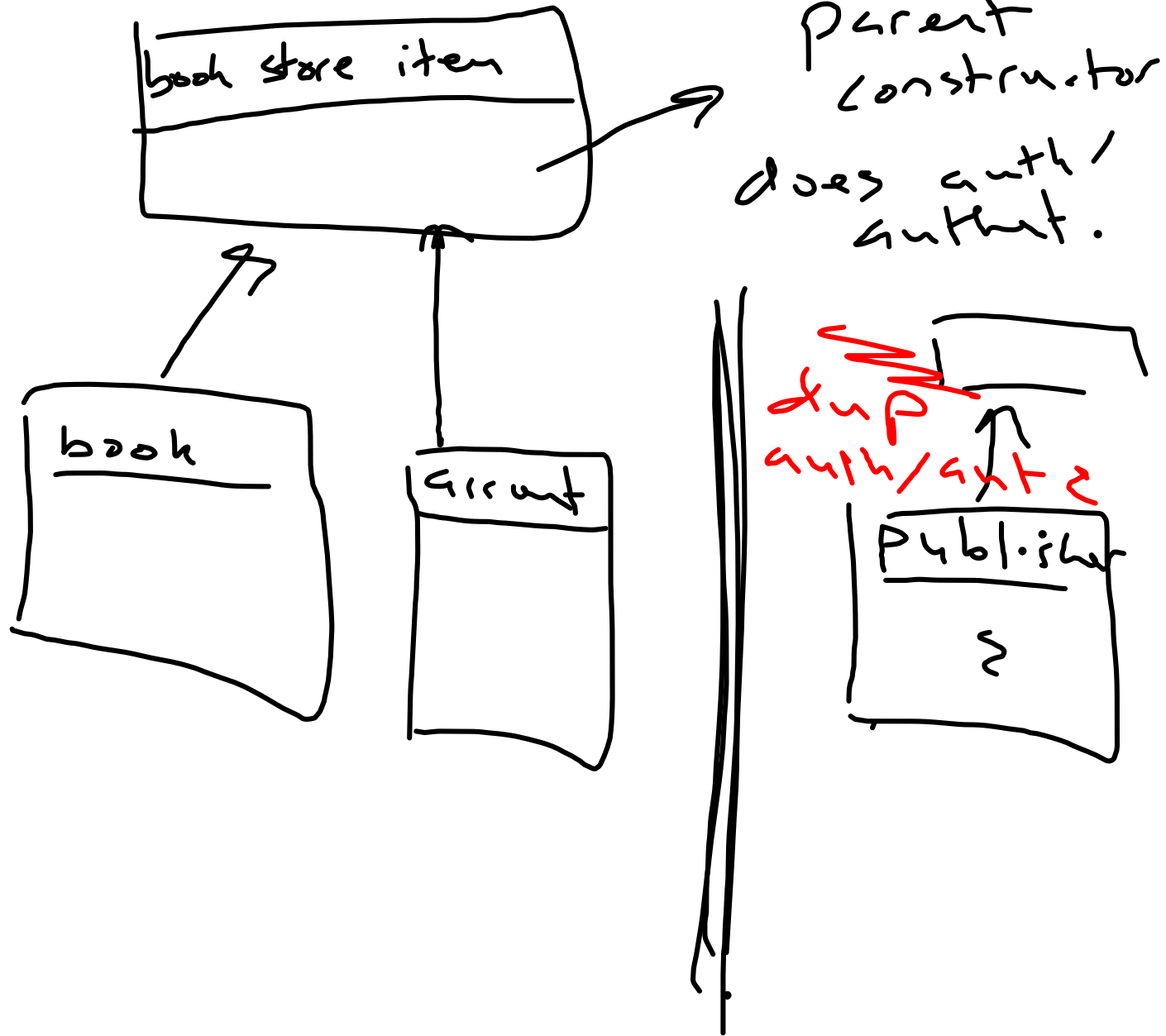
URL \longleftrightarrow Script



books.com/book?isbn = xyz

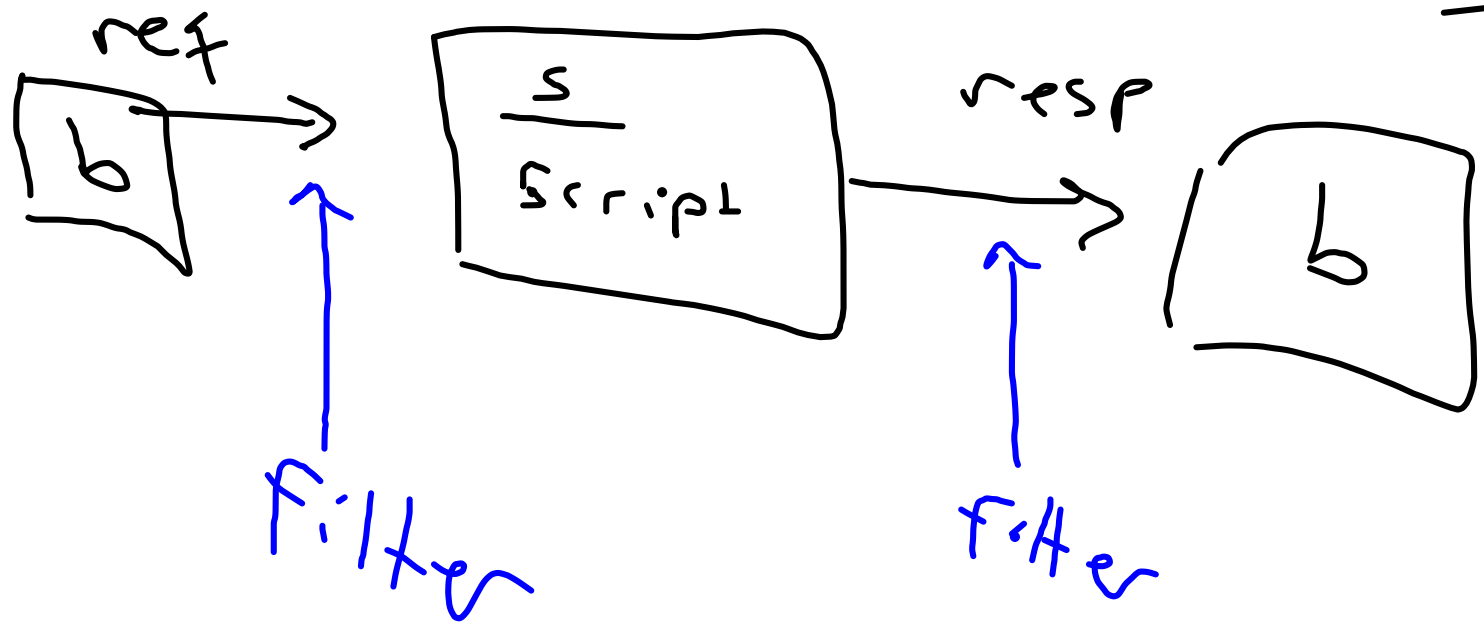
books.com/account?id = mno,p





Non-Web Frameworks

[non-framework solutions // Apache httpd]



AOP

↳ aspects of
functionality

relating to control
flow

```
public void someMethod() {  
    System.out.println("Starting some method");  
}
```

```
}  
s.o.println("ending some method");  
}
```

Lisp →

before

after

surrounding

} advice

TCL

↳ procs (function)

↳ we defined by a proc

redefining how

procedures are

related.

↳ some things in FORTH
functions defined "..."

↳ redefining "..."

TCL

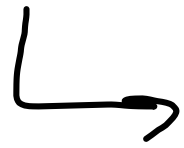


trace

variable

Another AOP use case
is persisting data.

In Java



AspectJ

replacement for

javac



Aspectwerkze

ClassLoader

↳ a Java object
that pulls class
definitions into
the JVM process