

Mojito

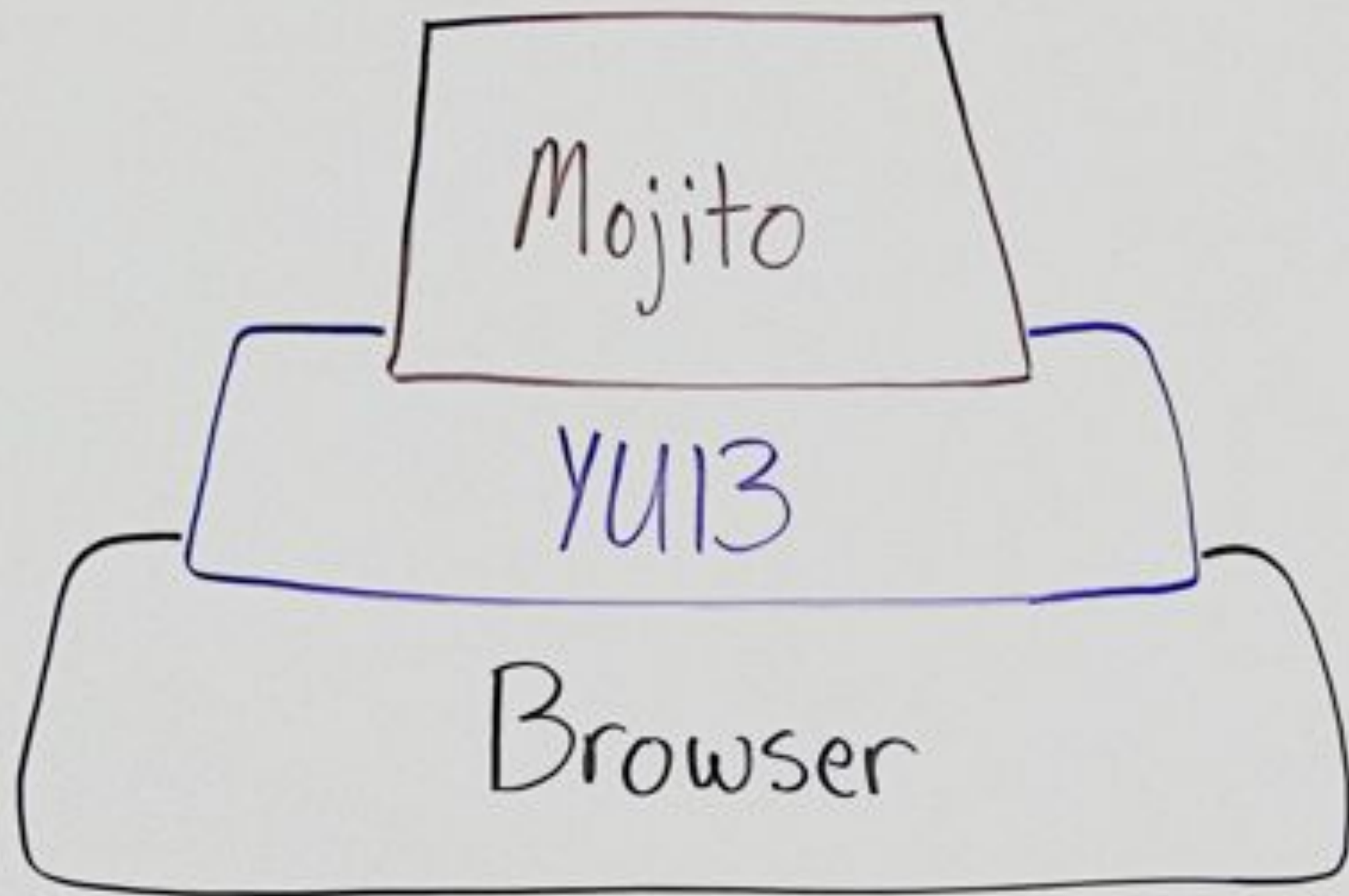
A Tale of Two
Runtimes

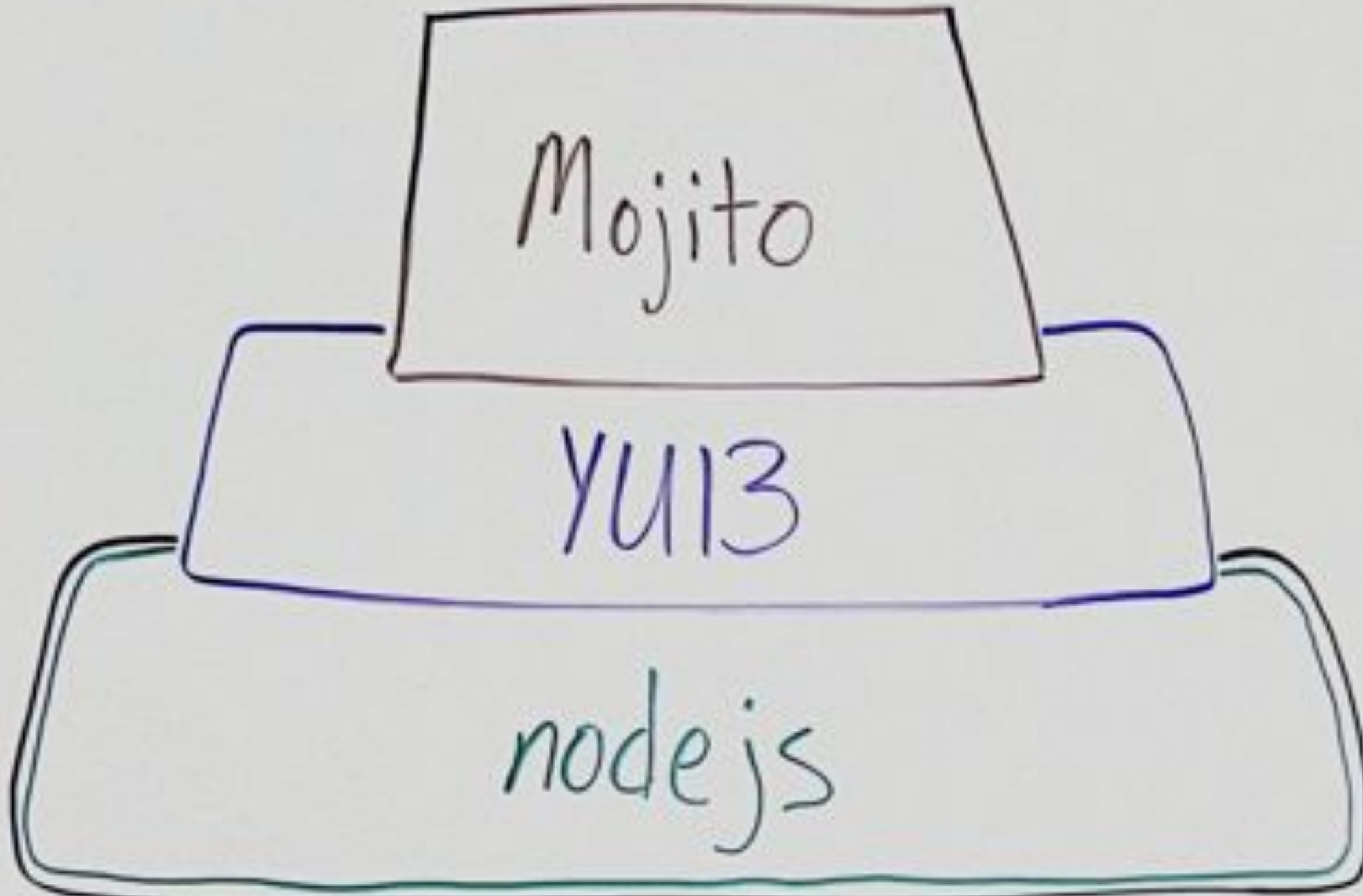
@rhyolight

Matthew Taylor
YAHOO!

Mojito is a Web Application Framework

- ★ 100% JavaScript
- ★ Client + Server
- ★ Presentation-Centric

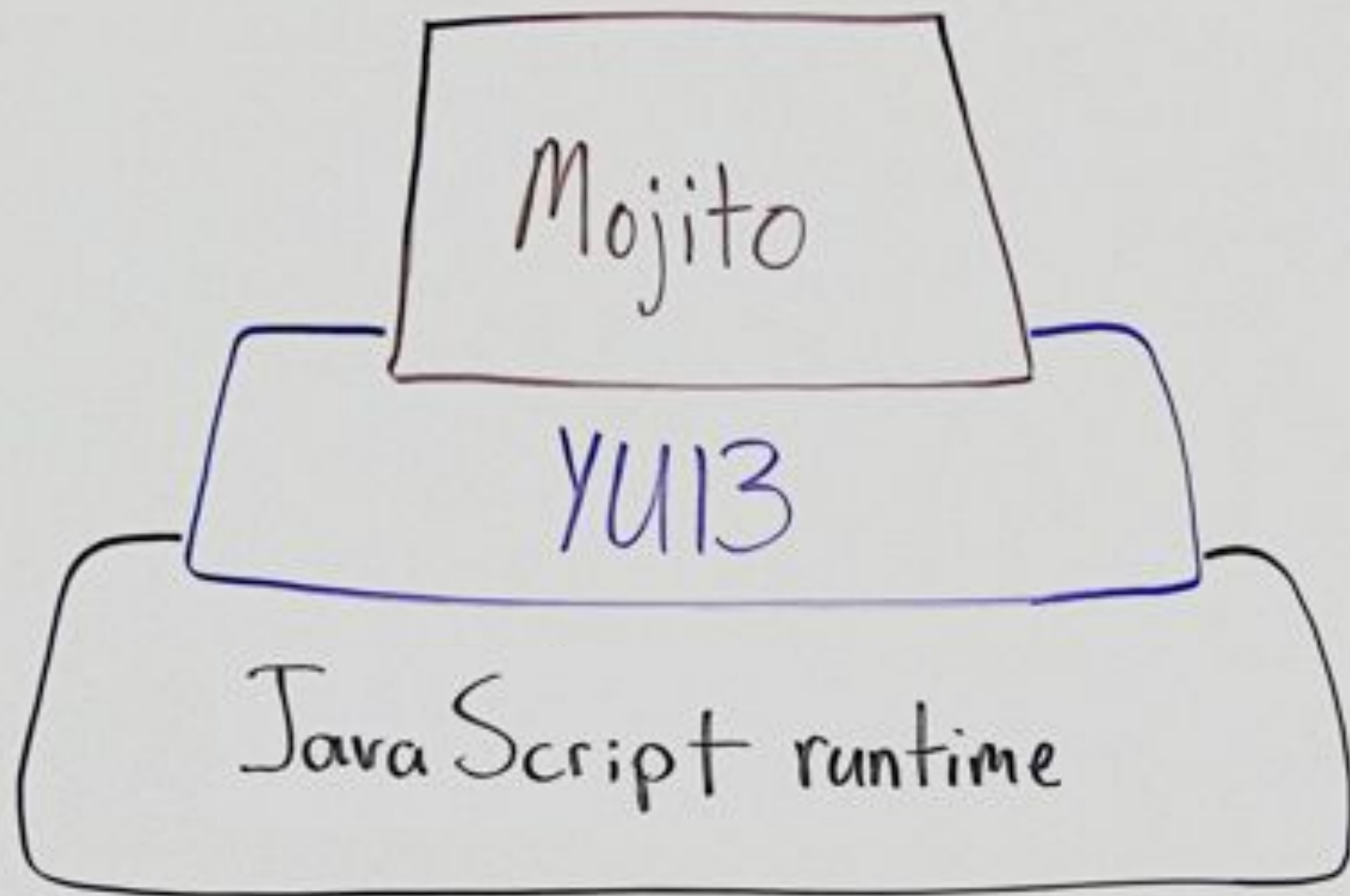




Mojito

YUI3

nodejs



WHY

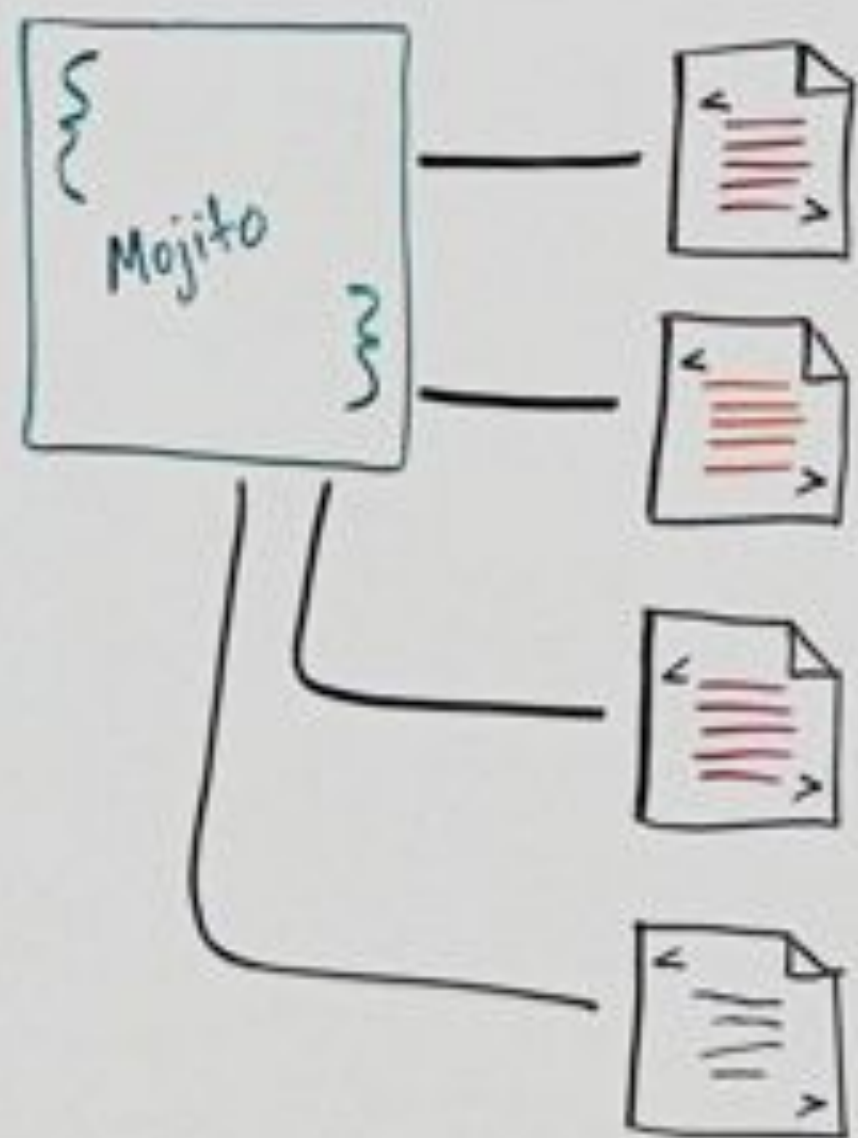
WHY



WHY



WHY



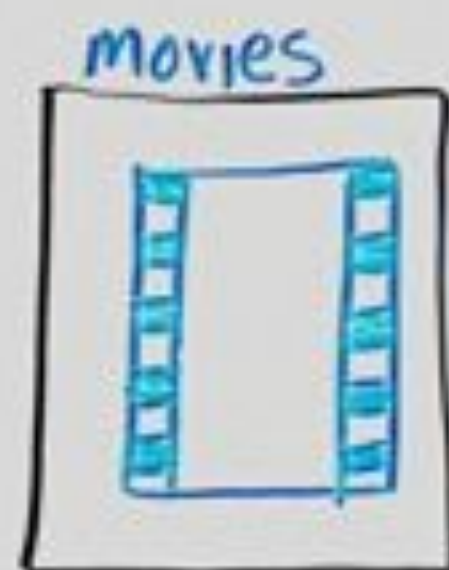
WHY



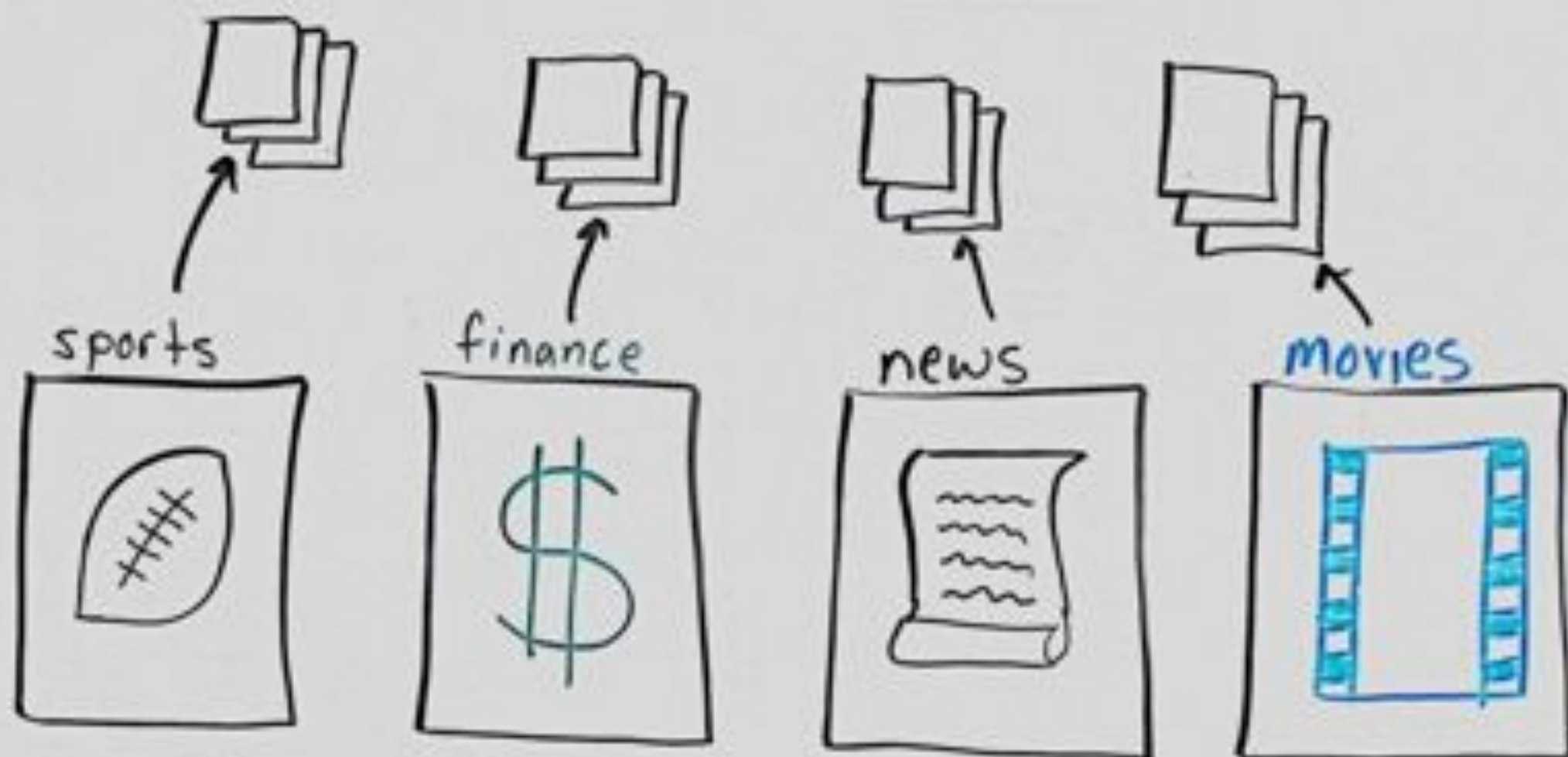
WHY



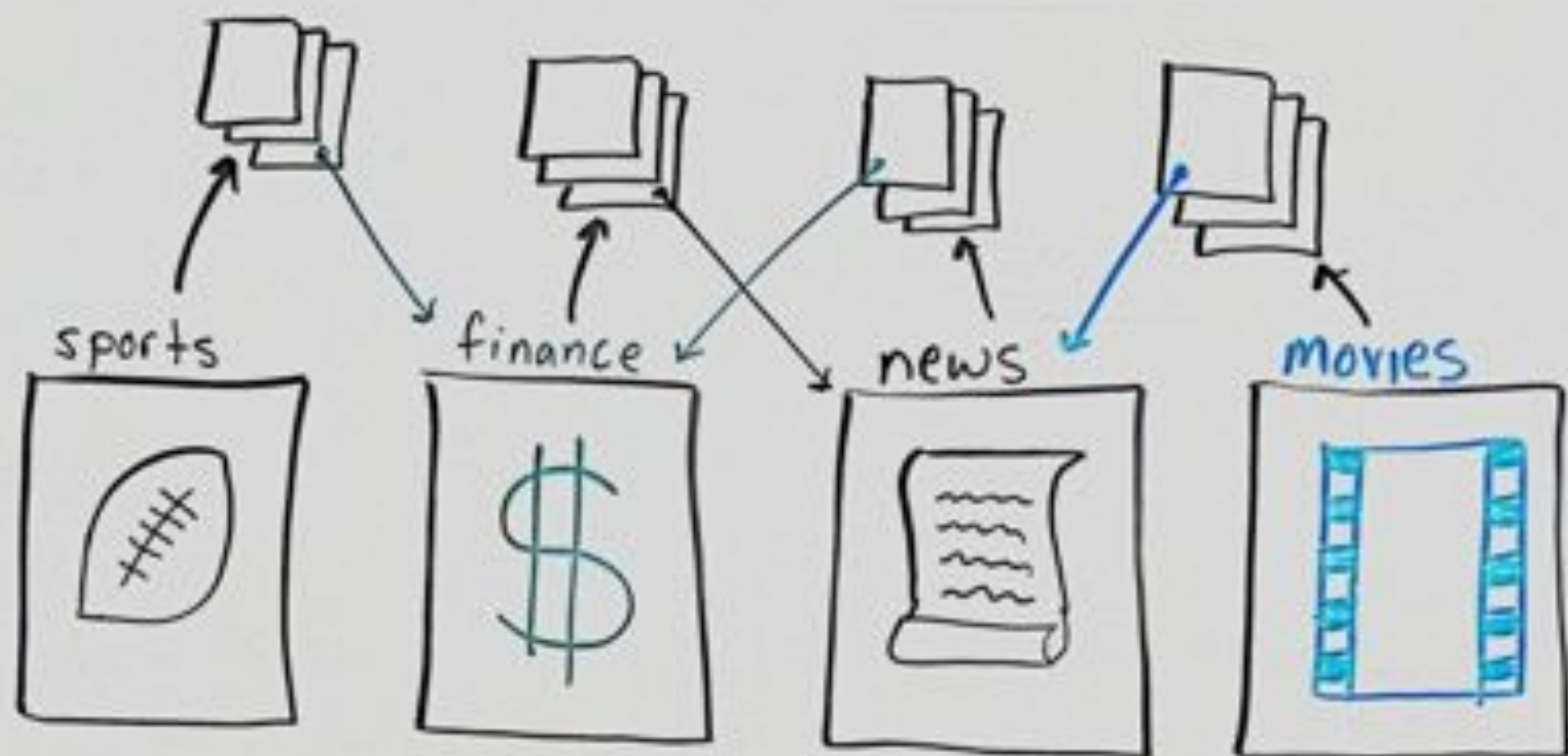
WHY



WHY



WHY



WHY

PHP

JS

Server

Client

WHY

JS

Server

JS

Client

WHY

JS

JS

JS

Server

Common

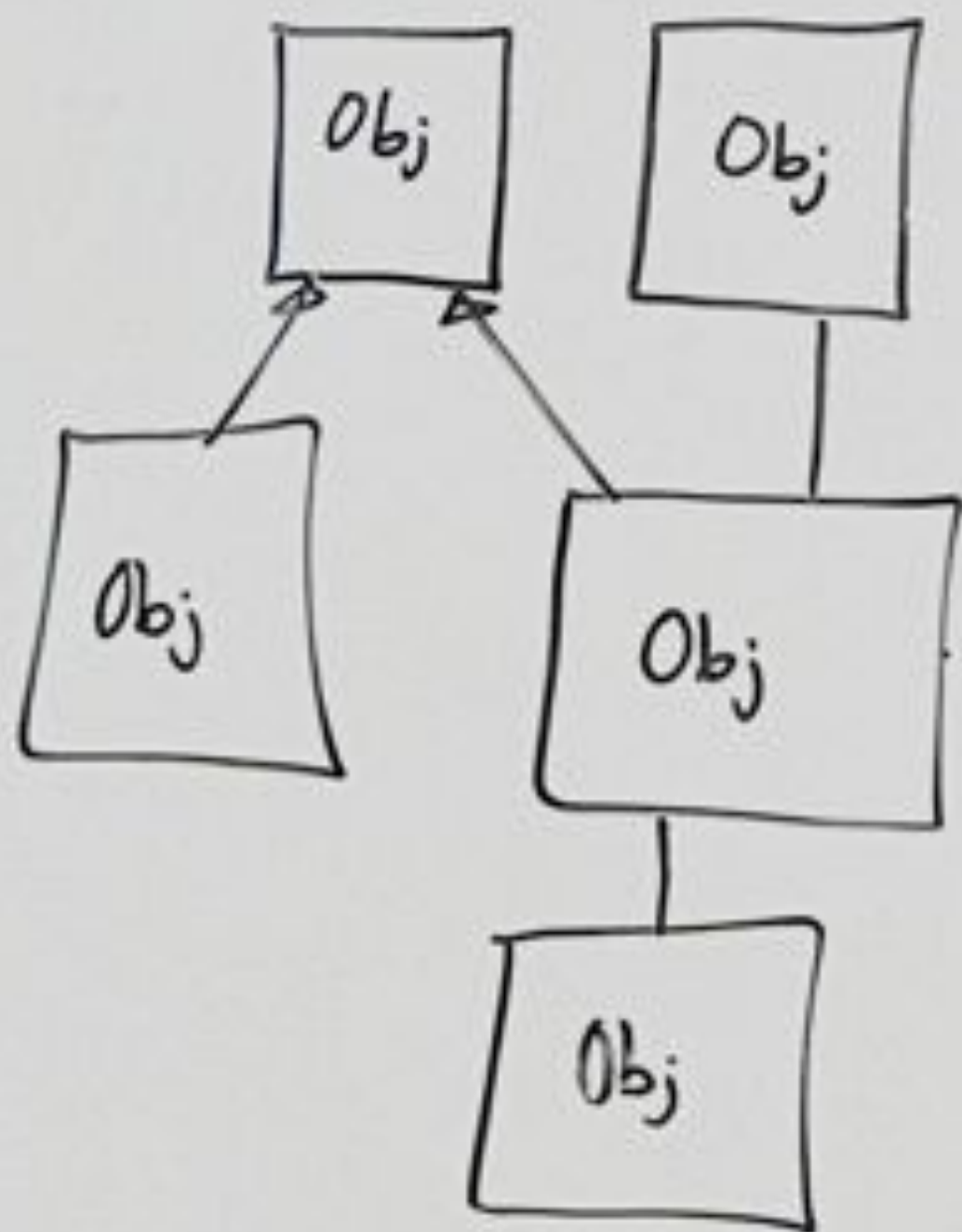
Client

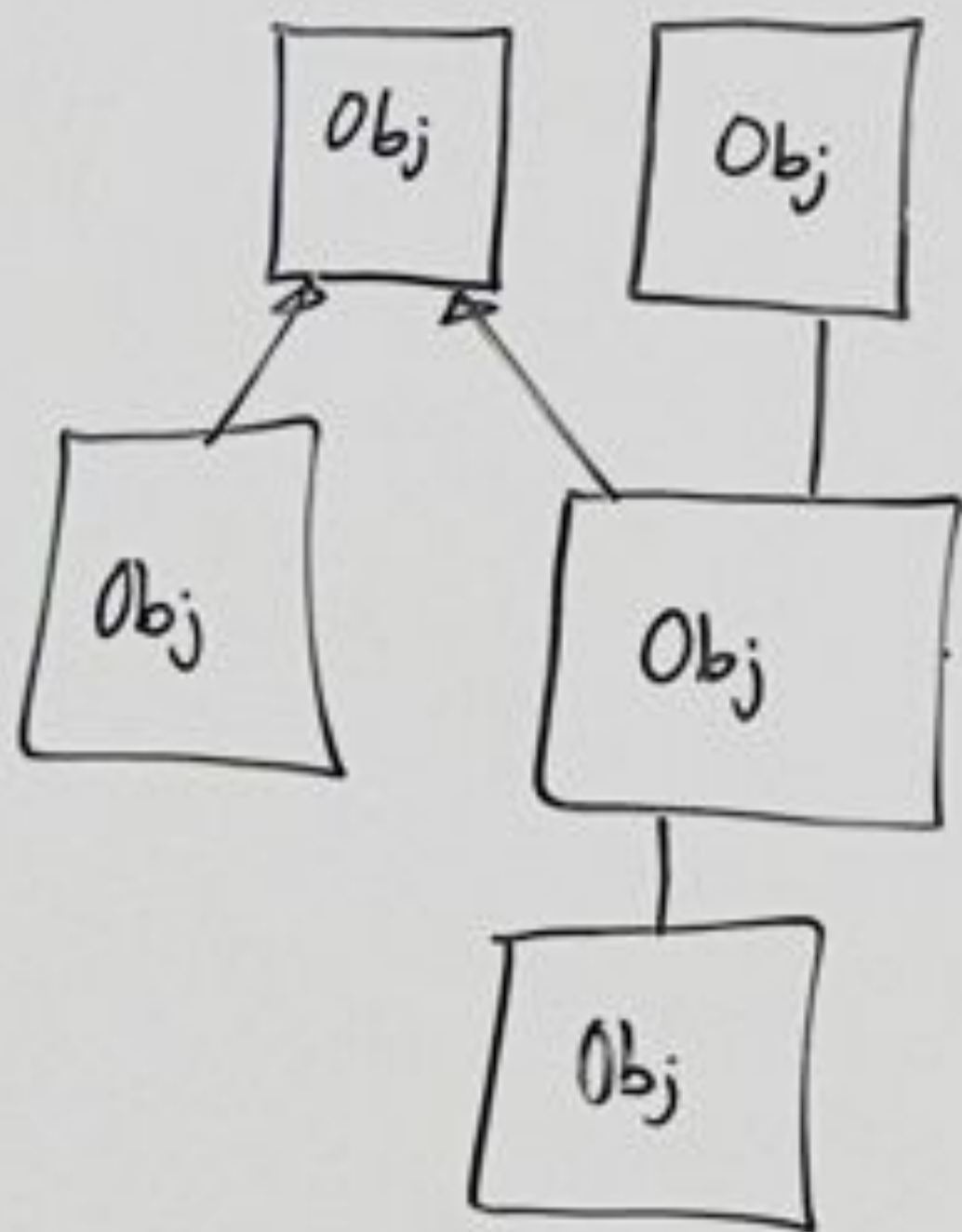
WHY

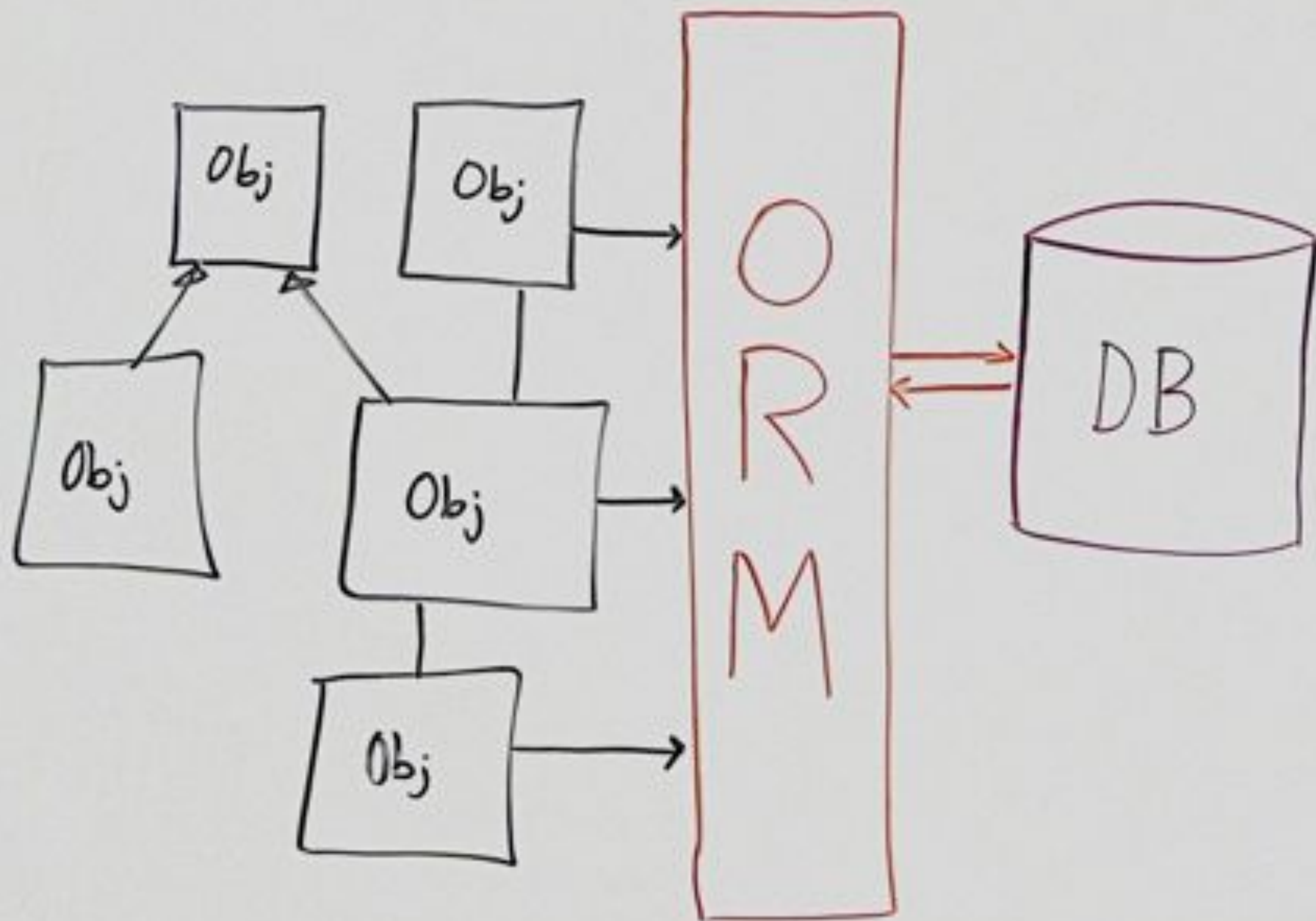
JS	JS	JS
Server	Common	Client

WHY

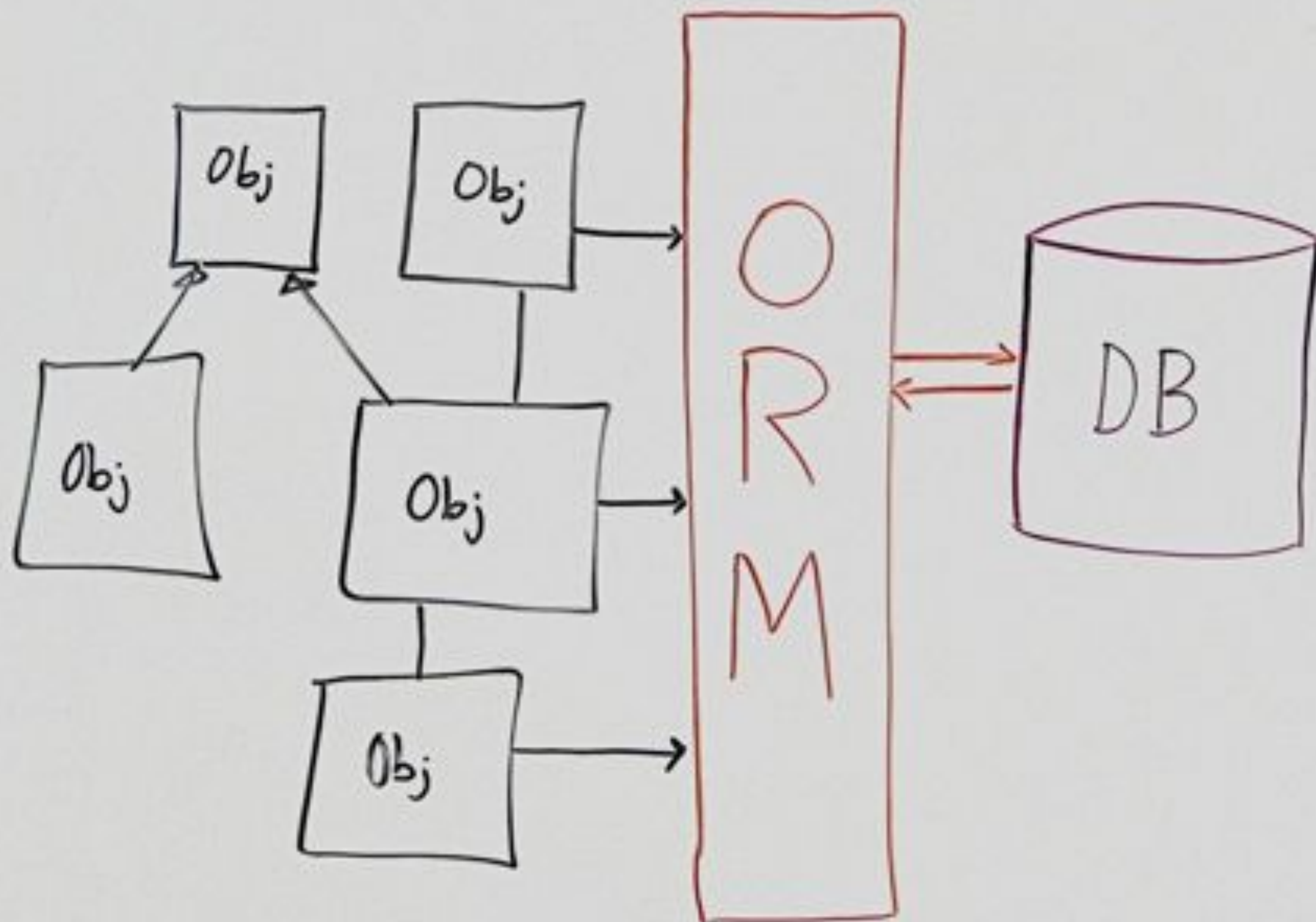
ONE
CODEBASE



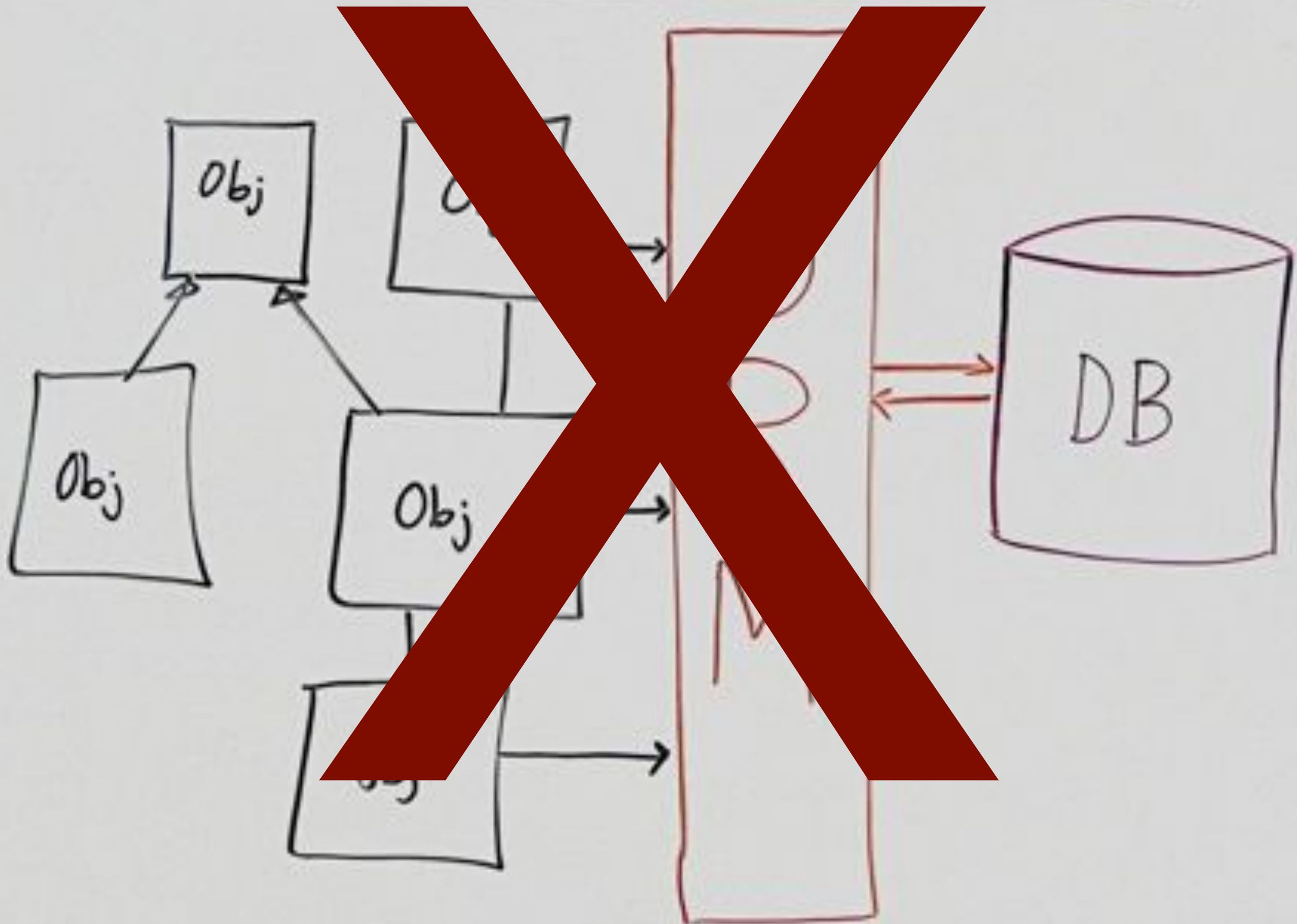




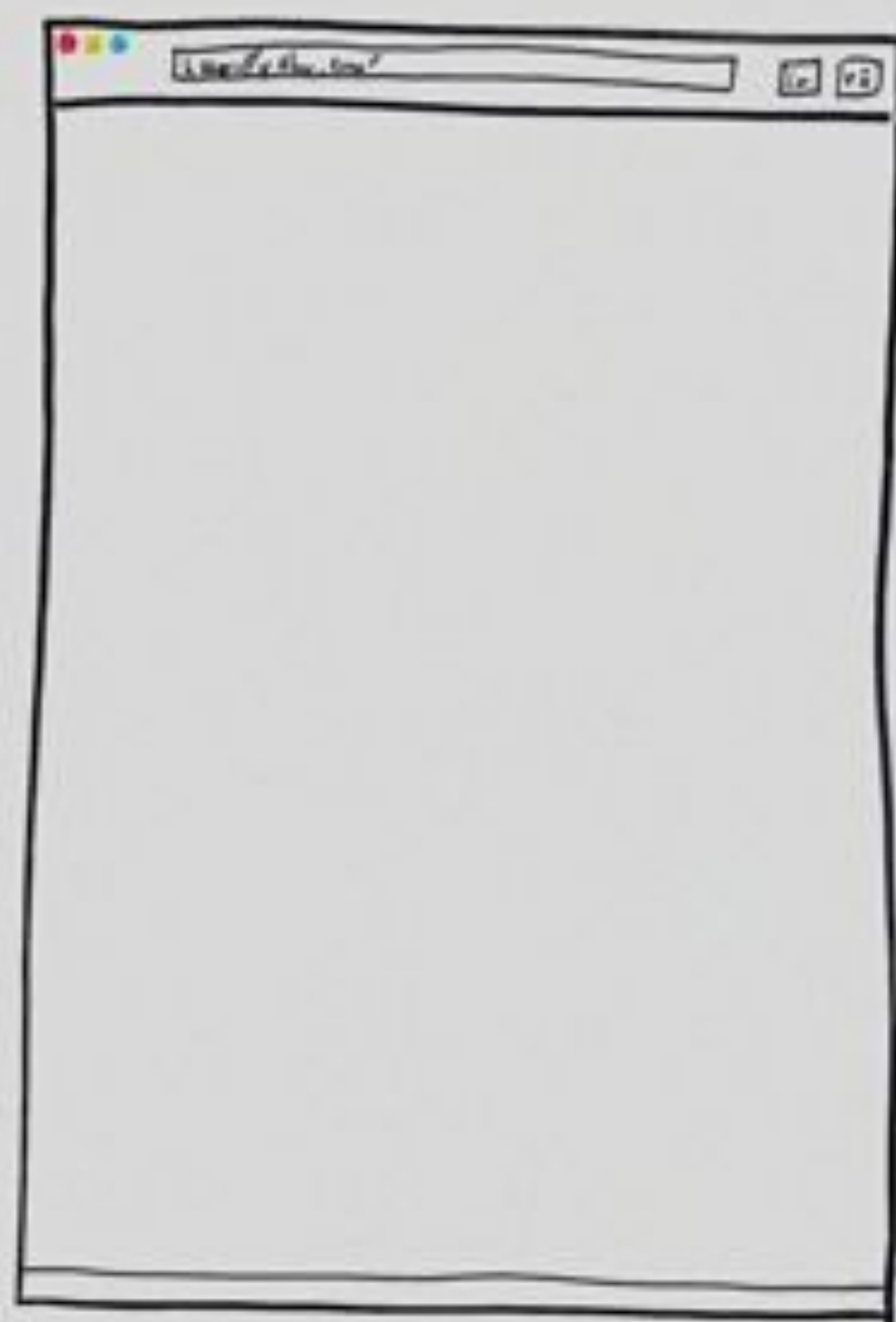
Rails, Grails, Django, etc.



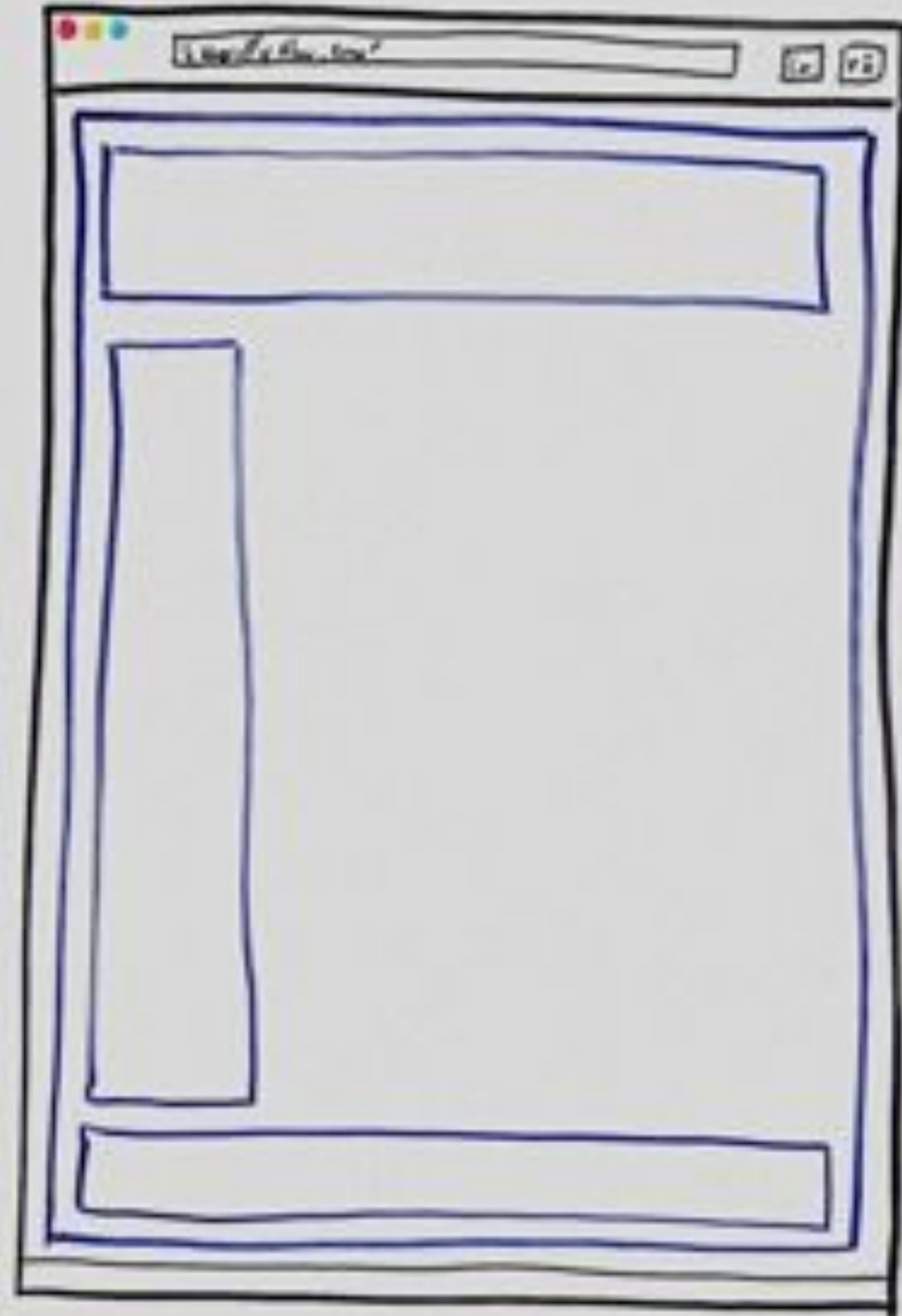
Rails, Grails, Django, etc.

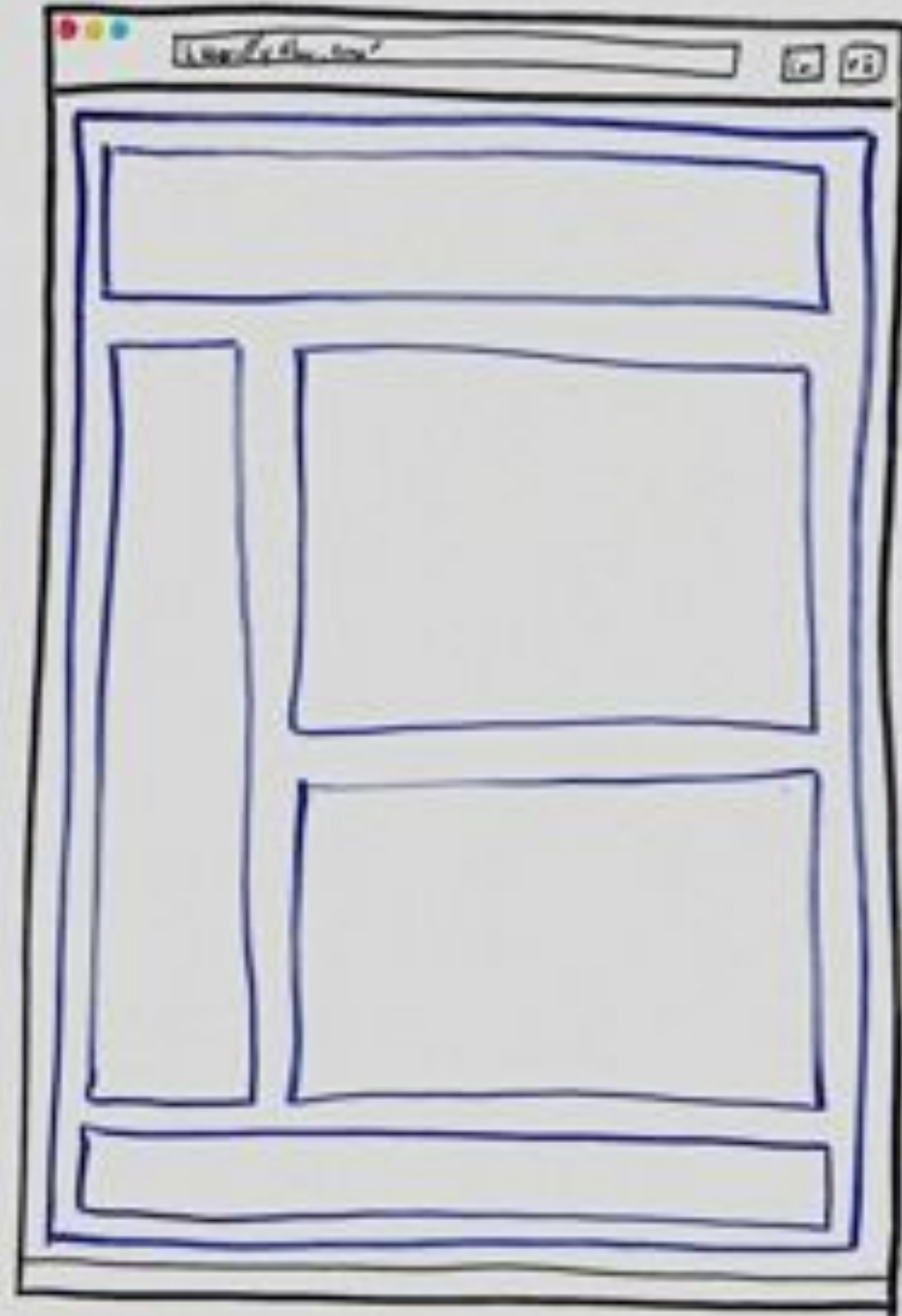


Presentation-Centric











Widgets?
Modules?



~~Widgets?~~

~~Modules?~~

Mojits

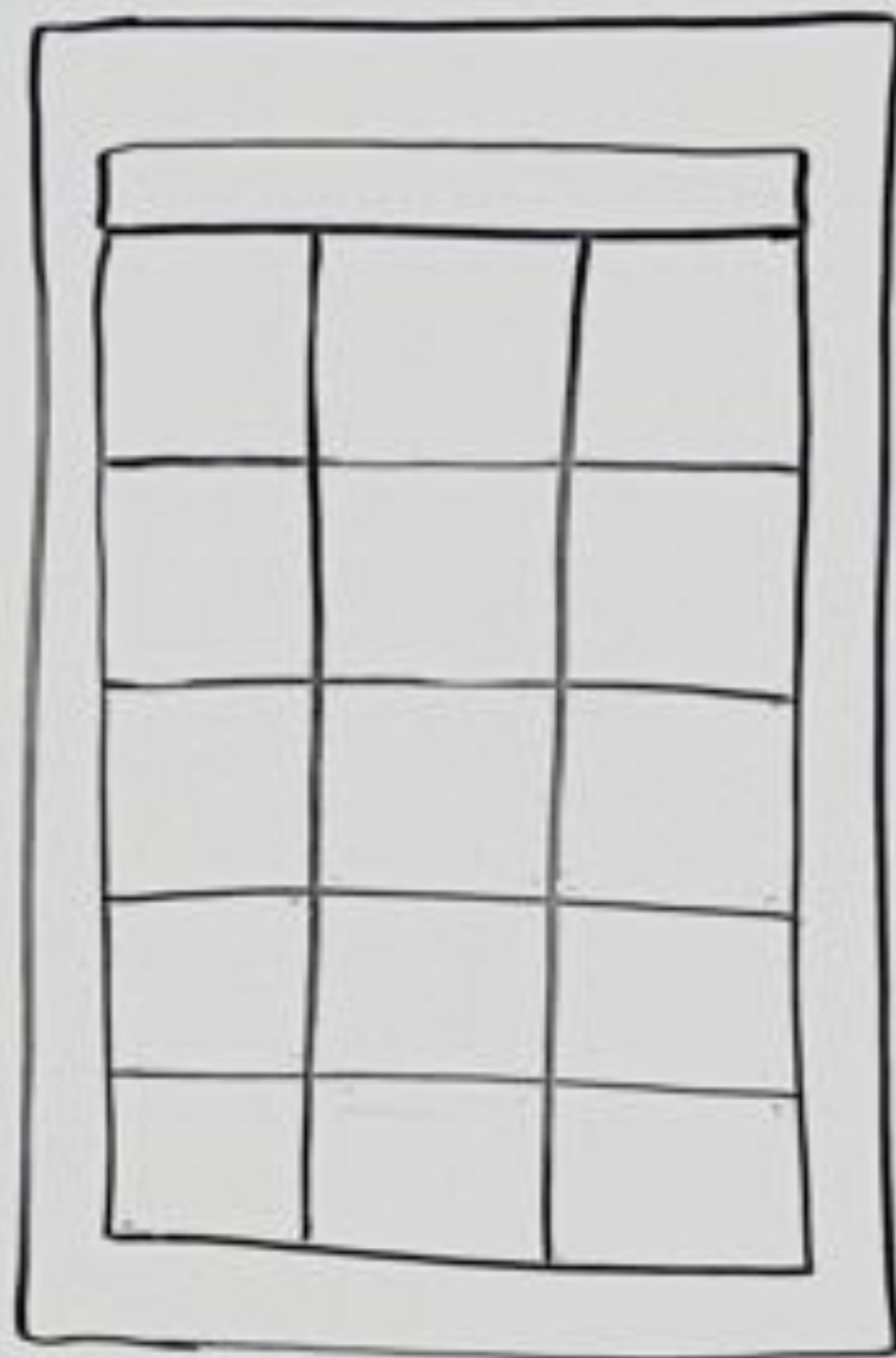


~~Widgets?~~

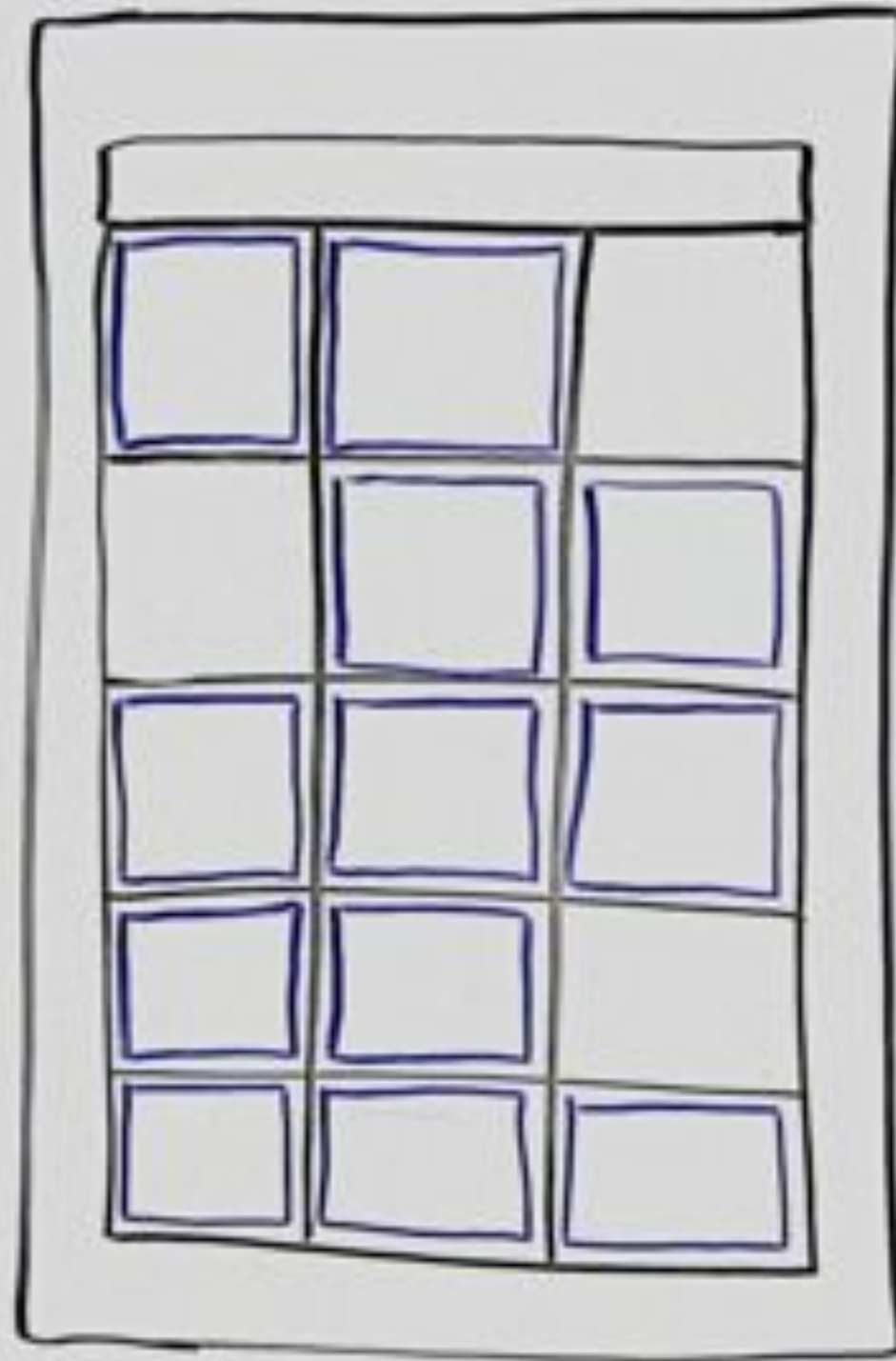
~~Modules?~~

Mojito

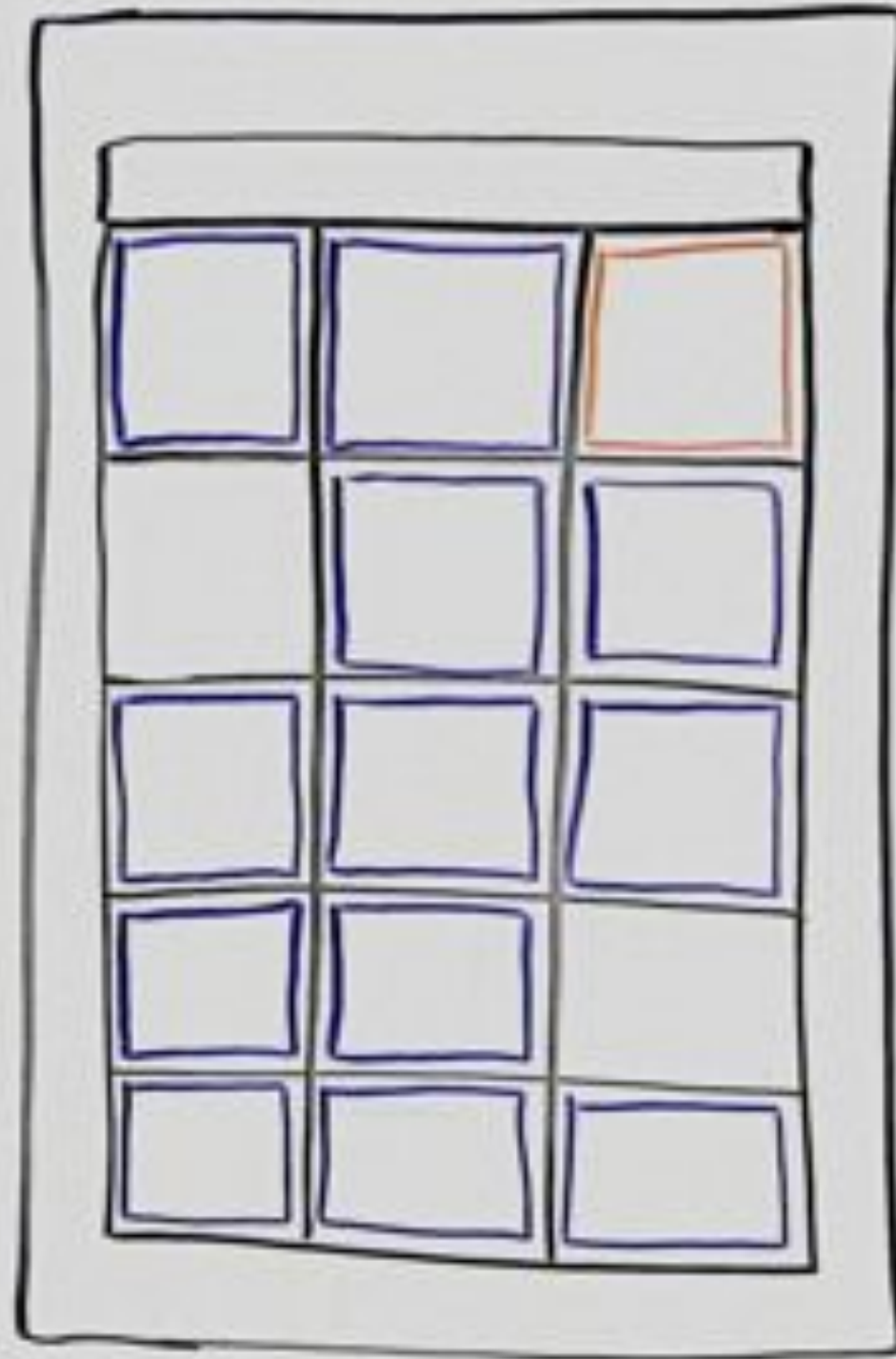




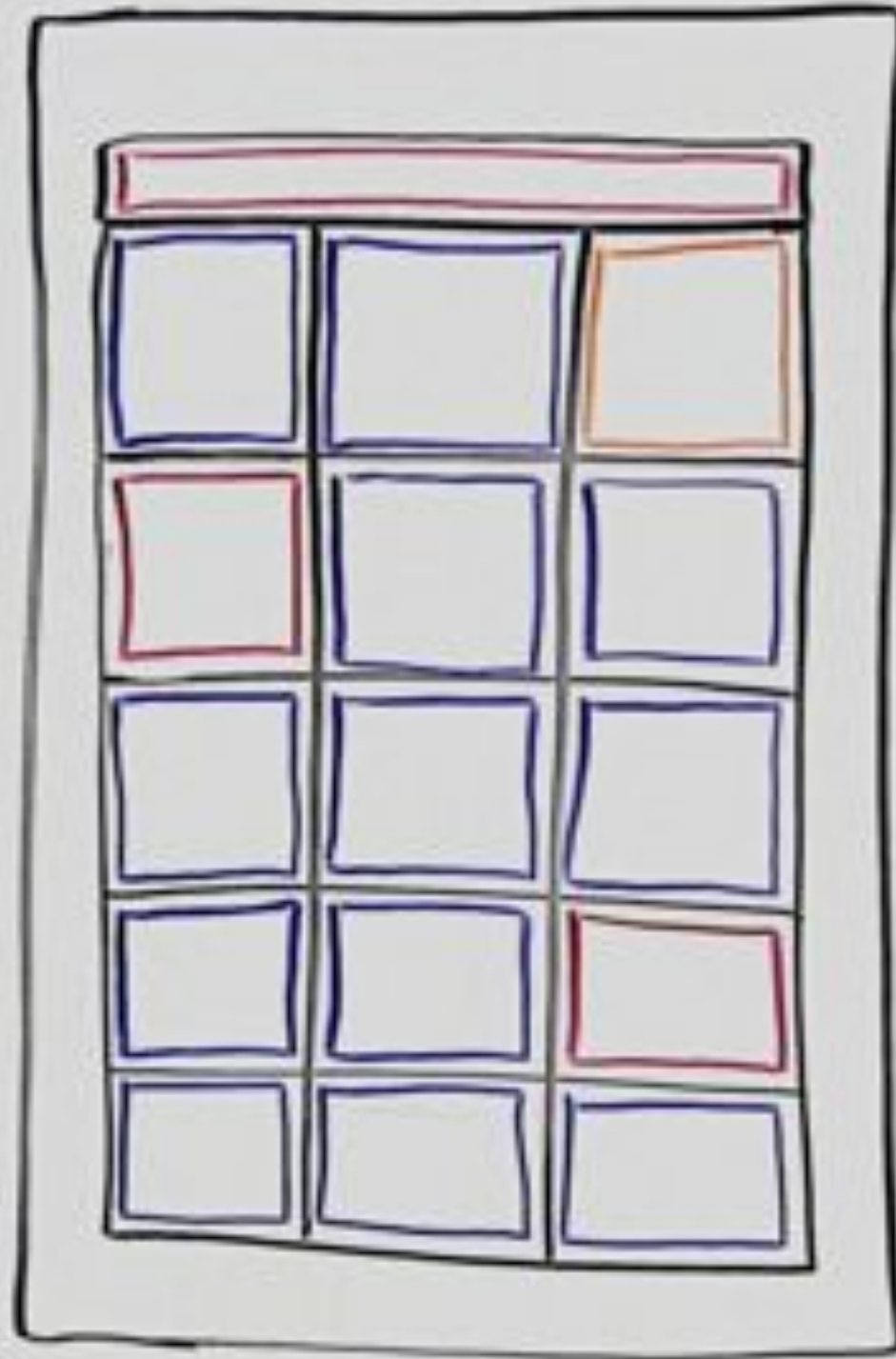
OMG!



OMG!

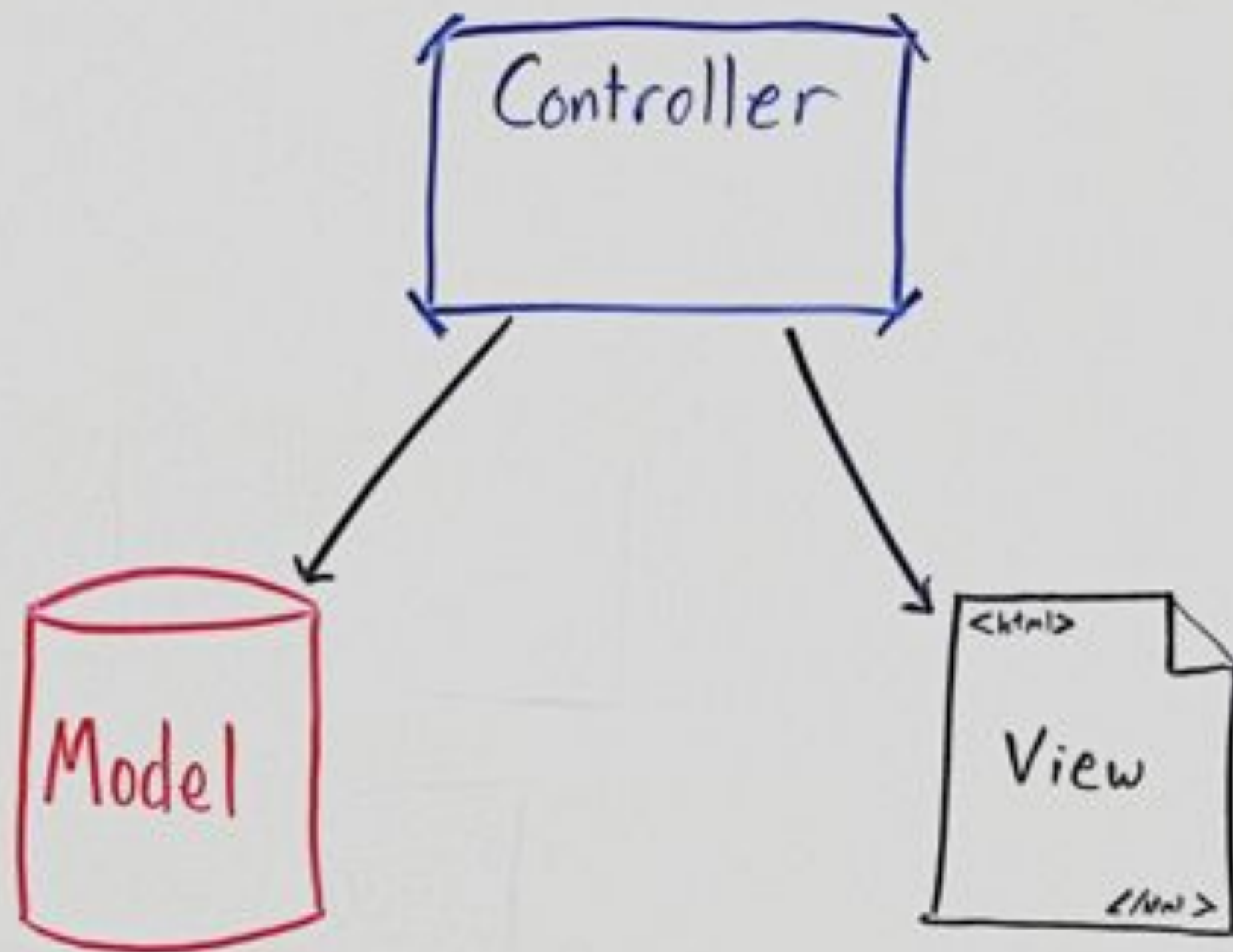


OMG!

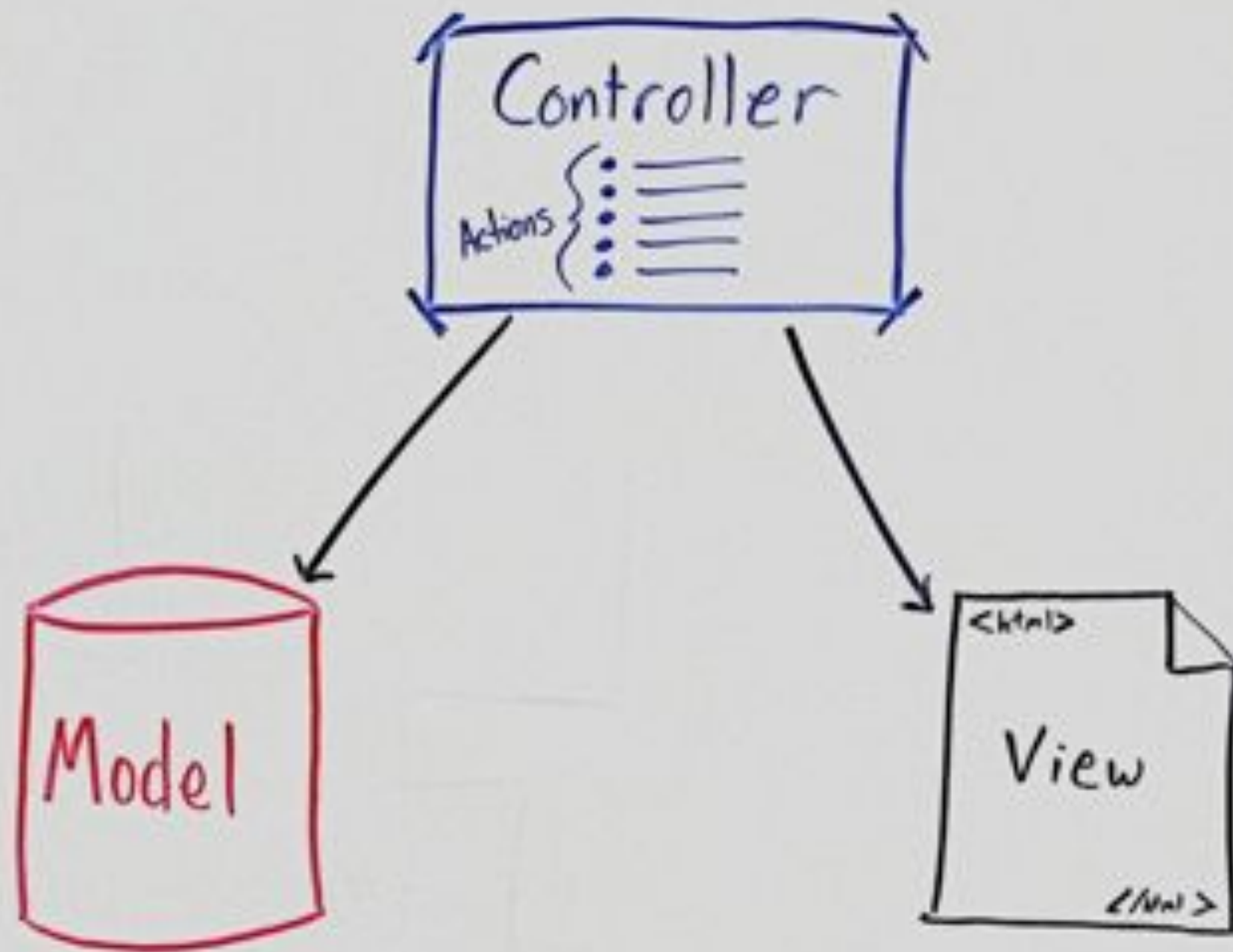


OMG!

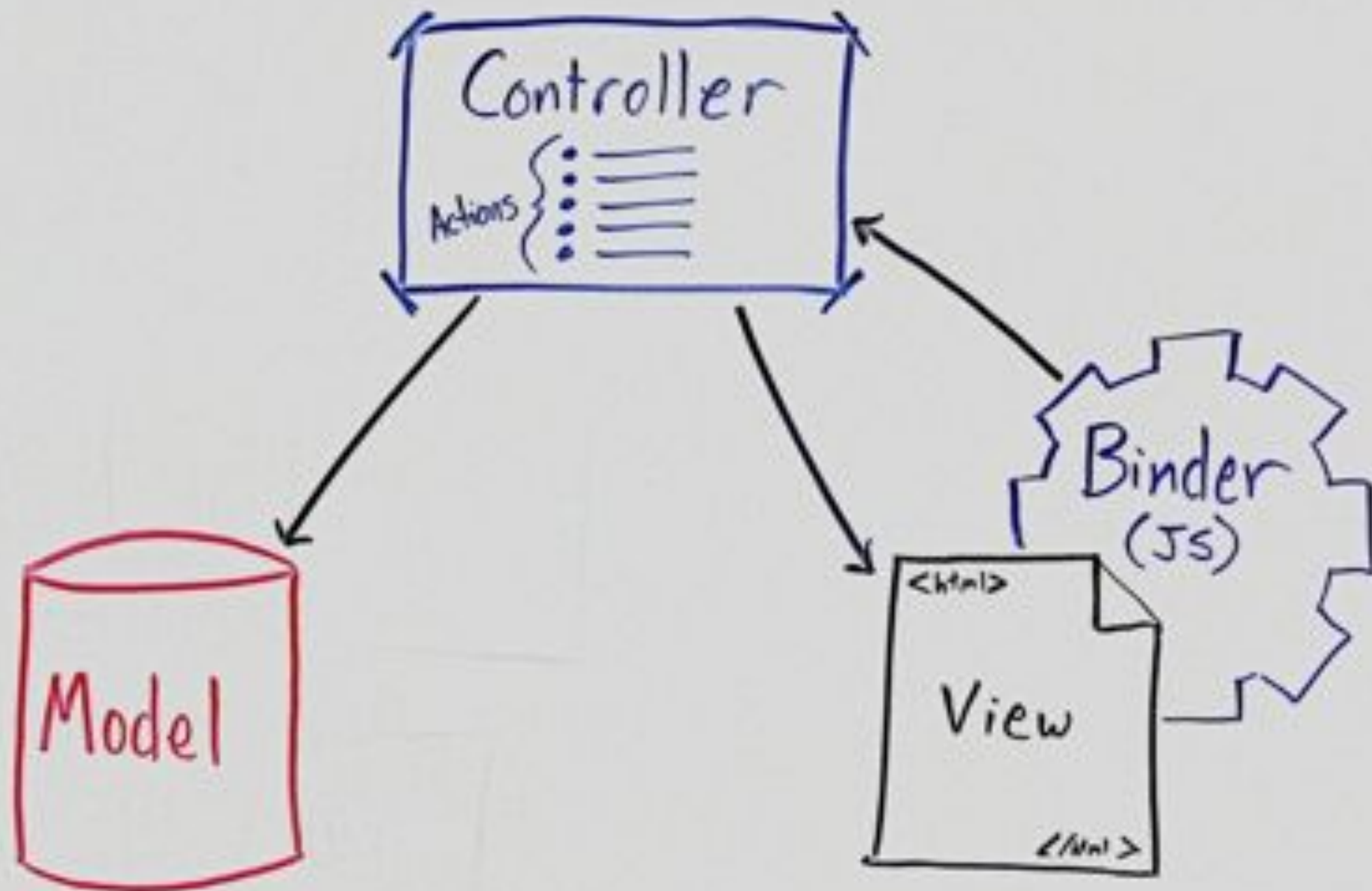
Mojit MVC

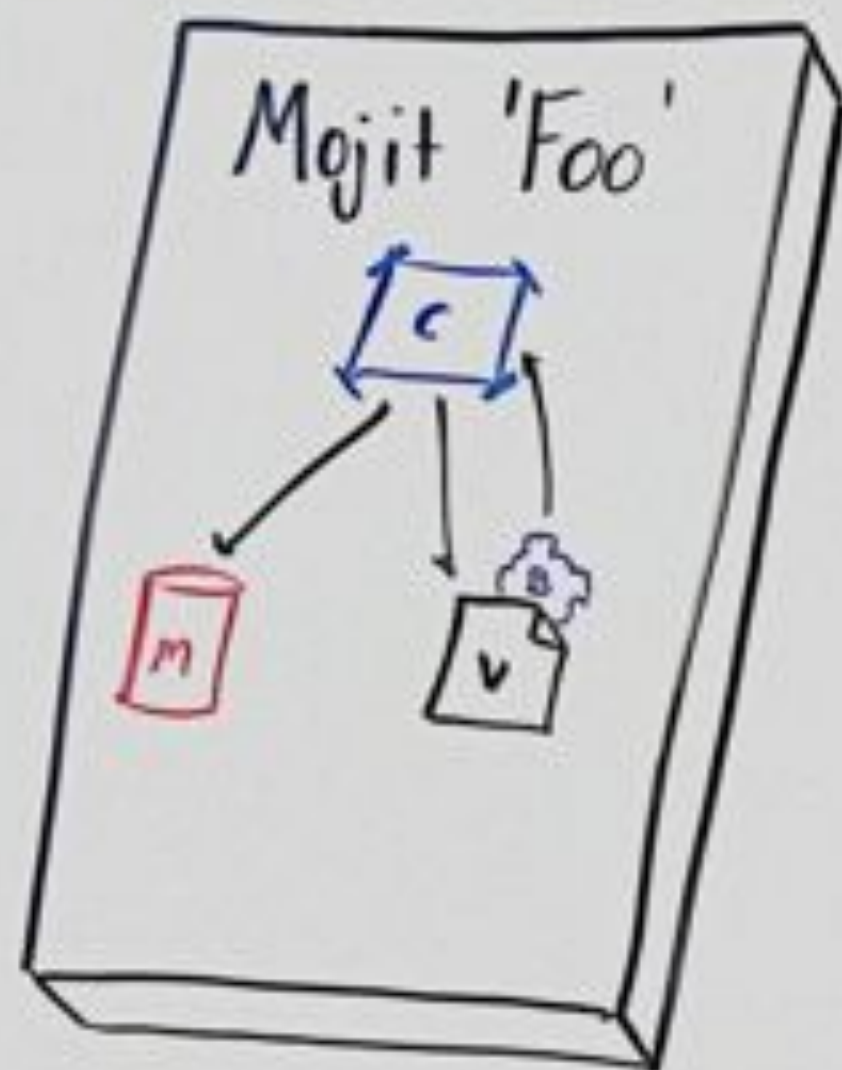


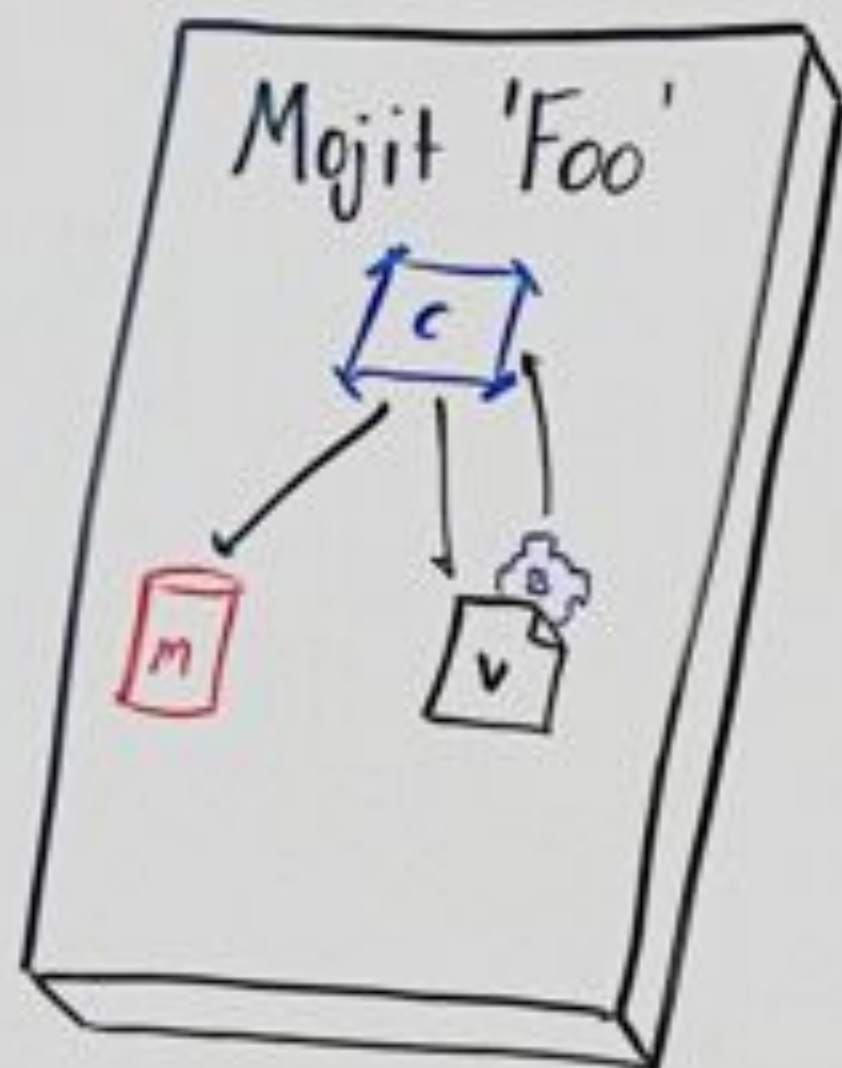
Mojit MVC



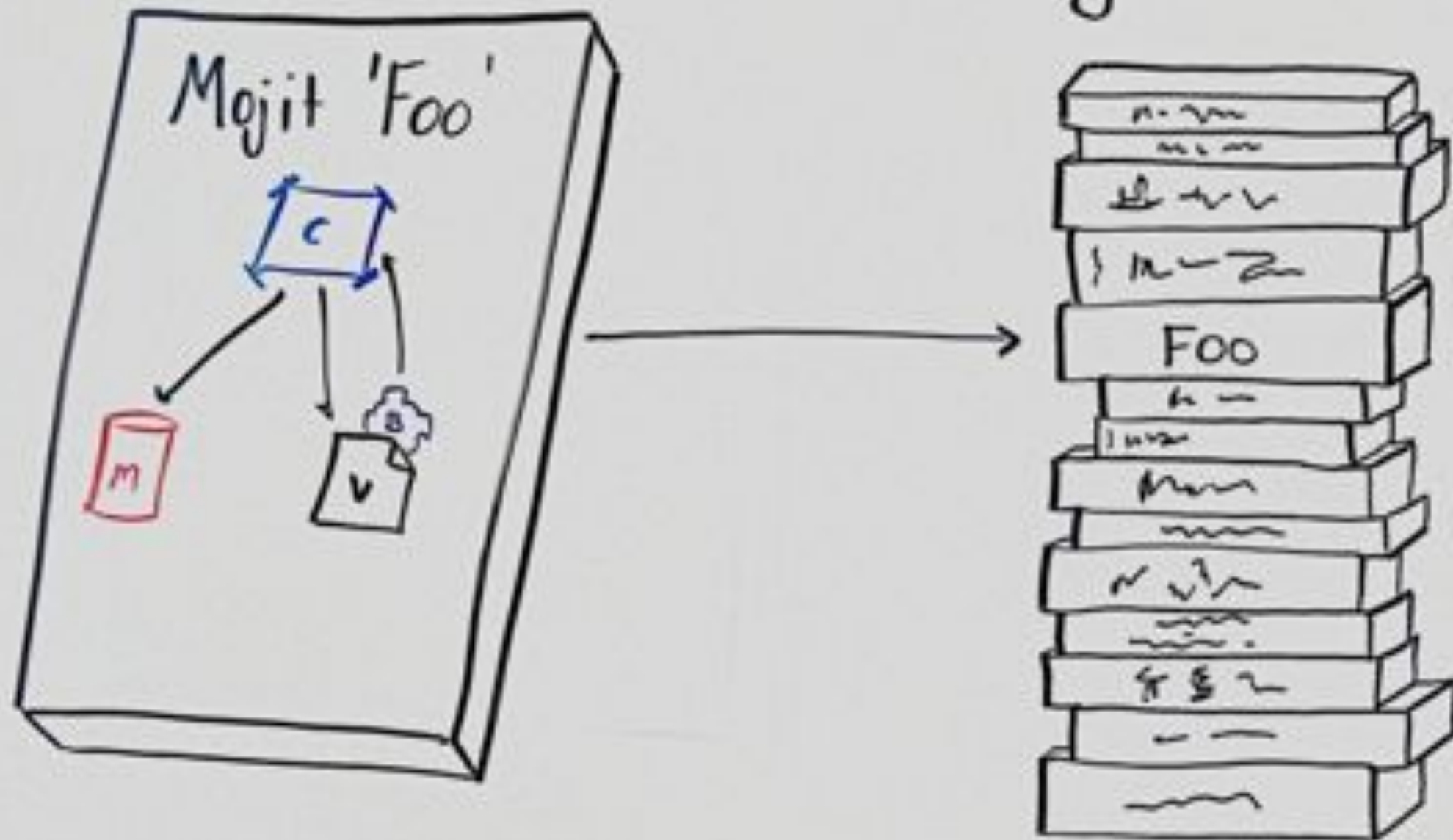
Mojit MVC

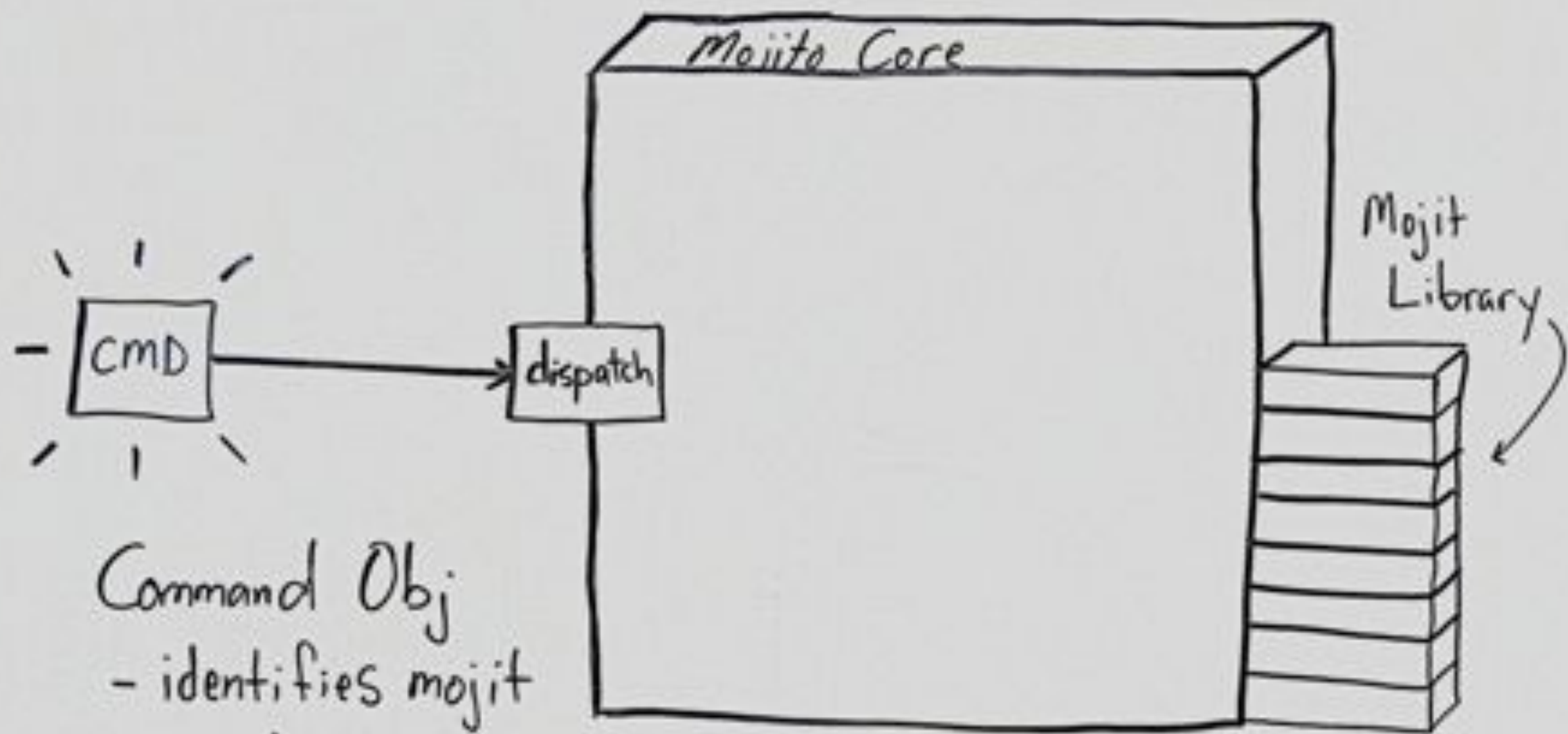






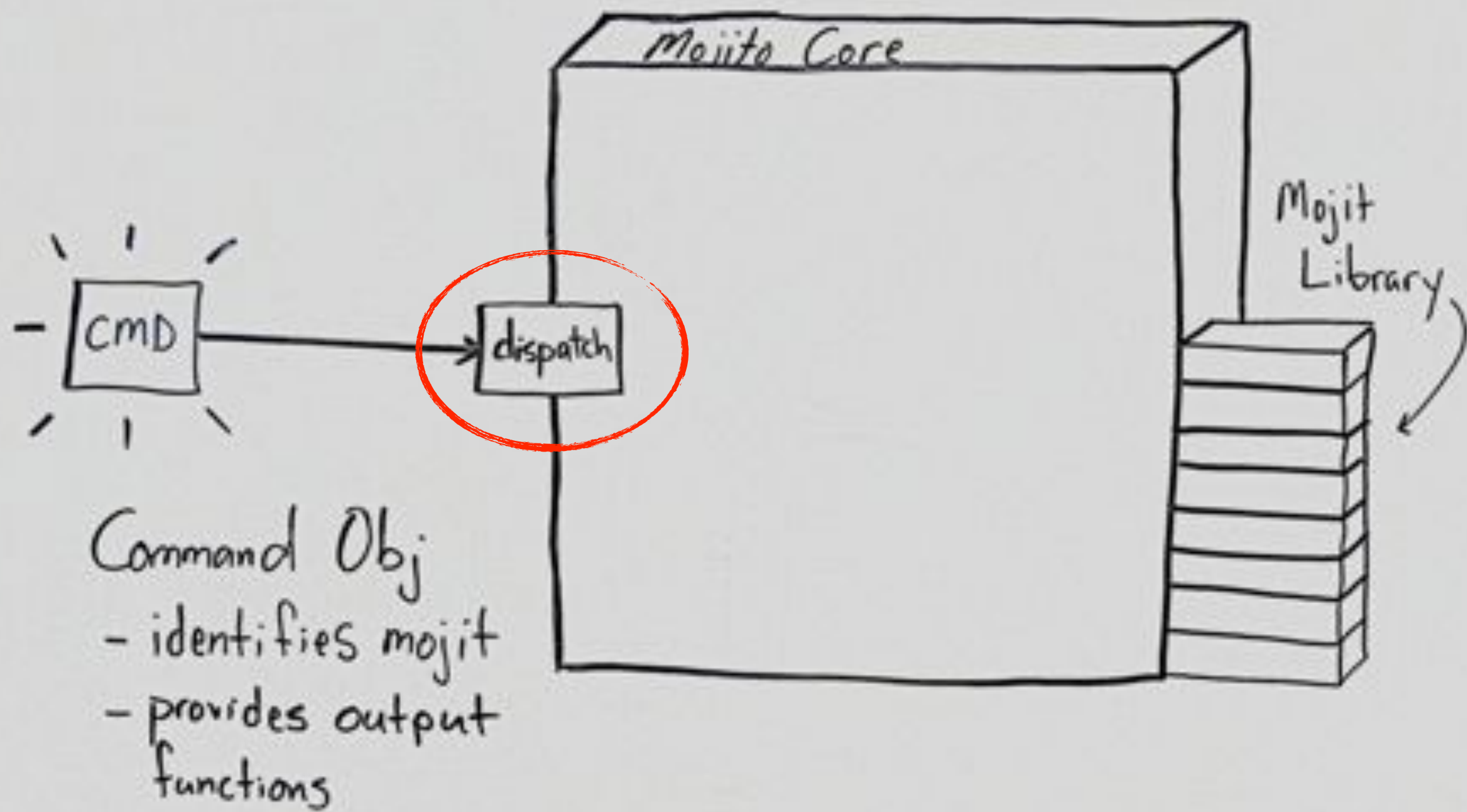
Mojit Library

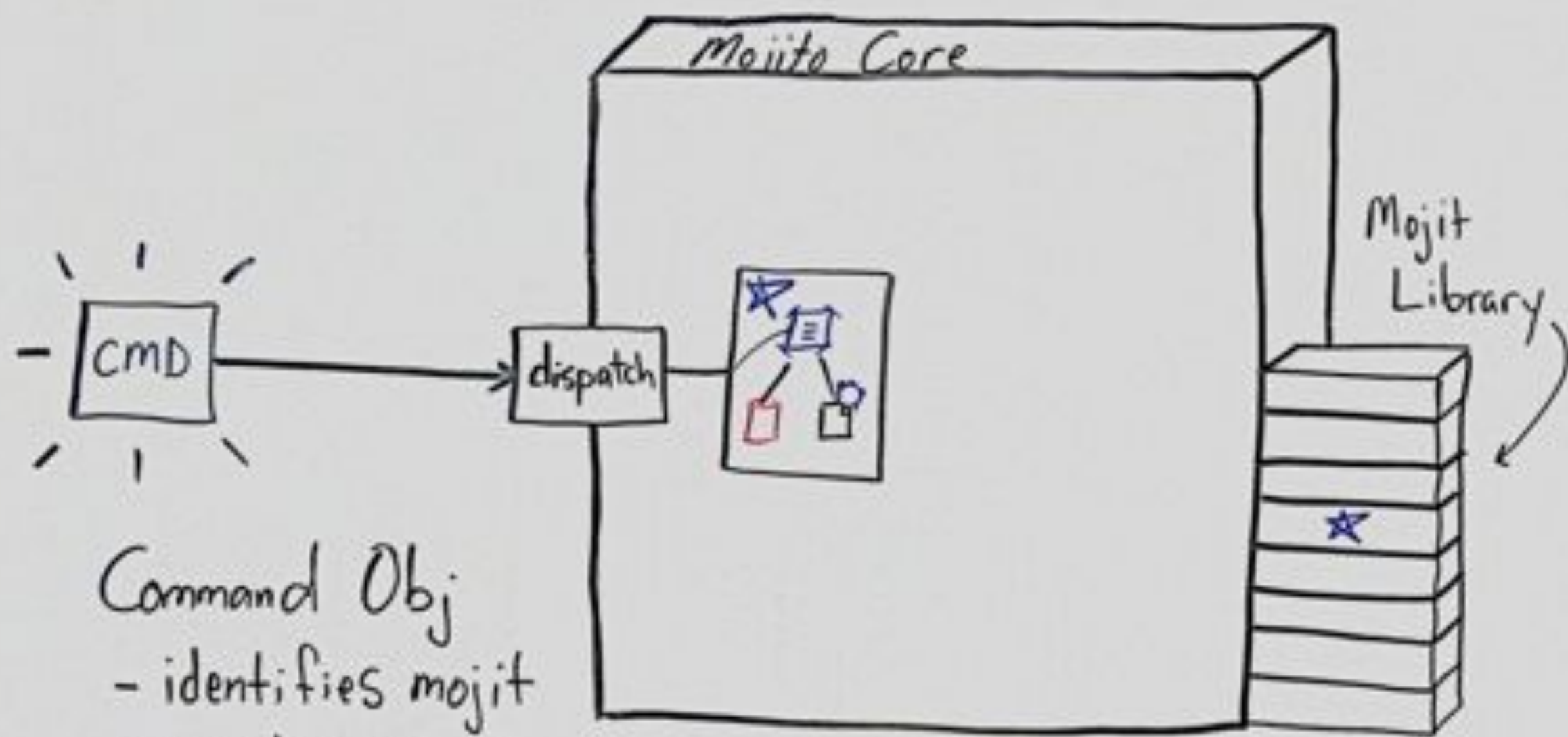




Command Obj

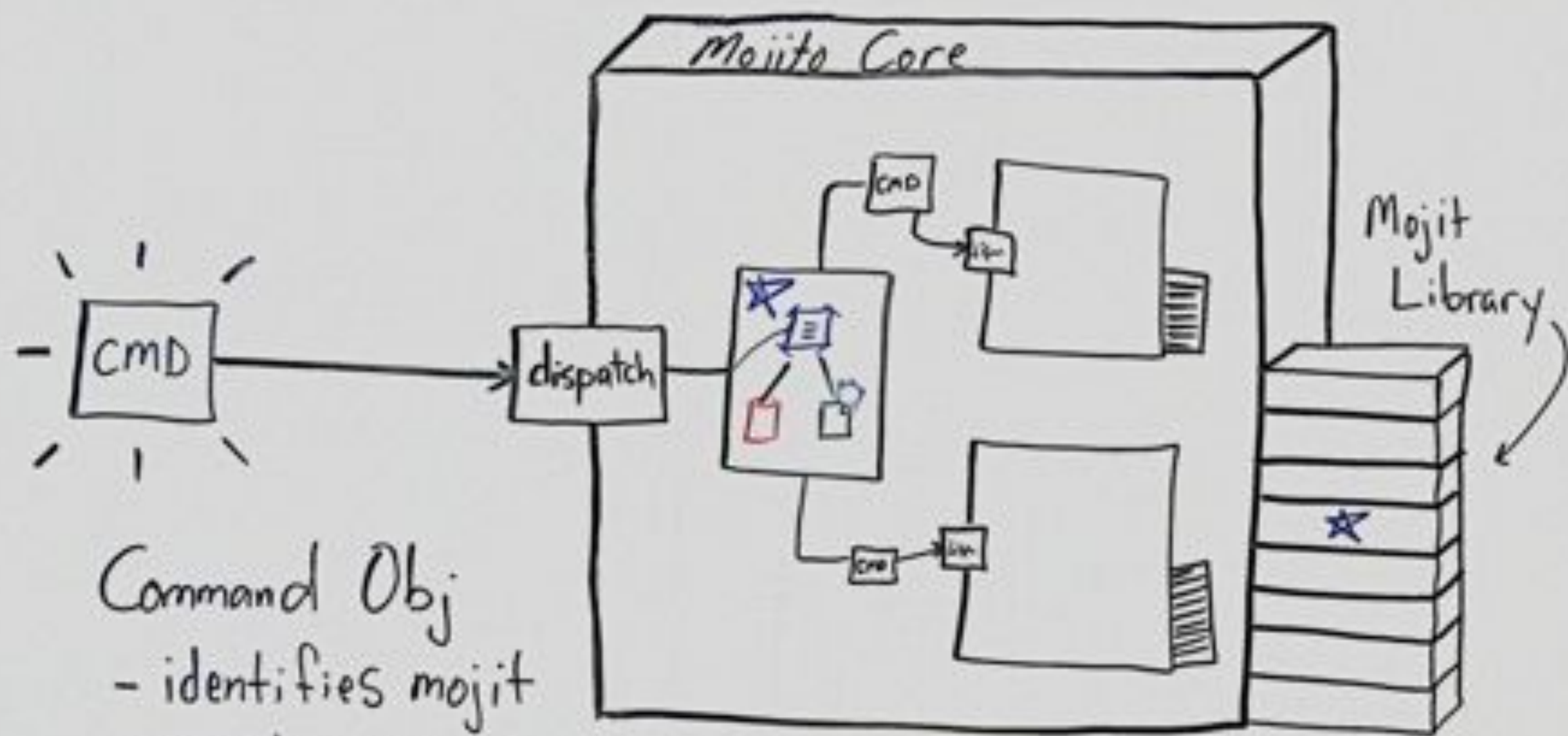
- identifies mojit
- provides output functions





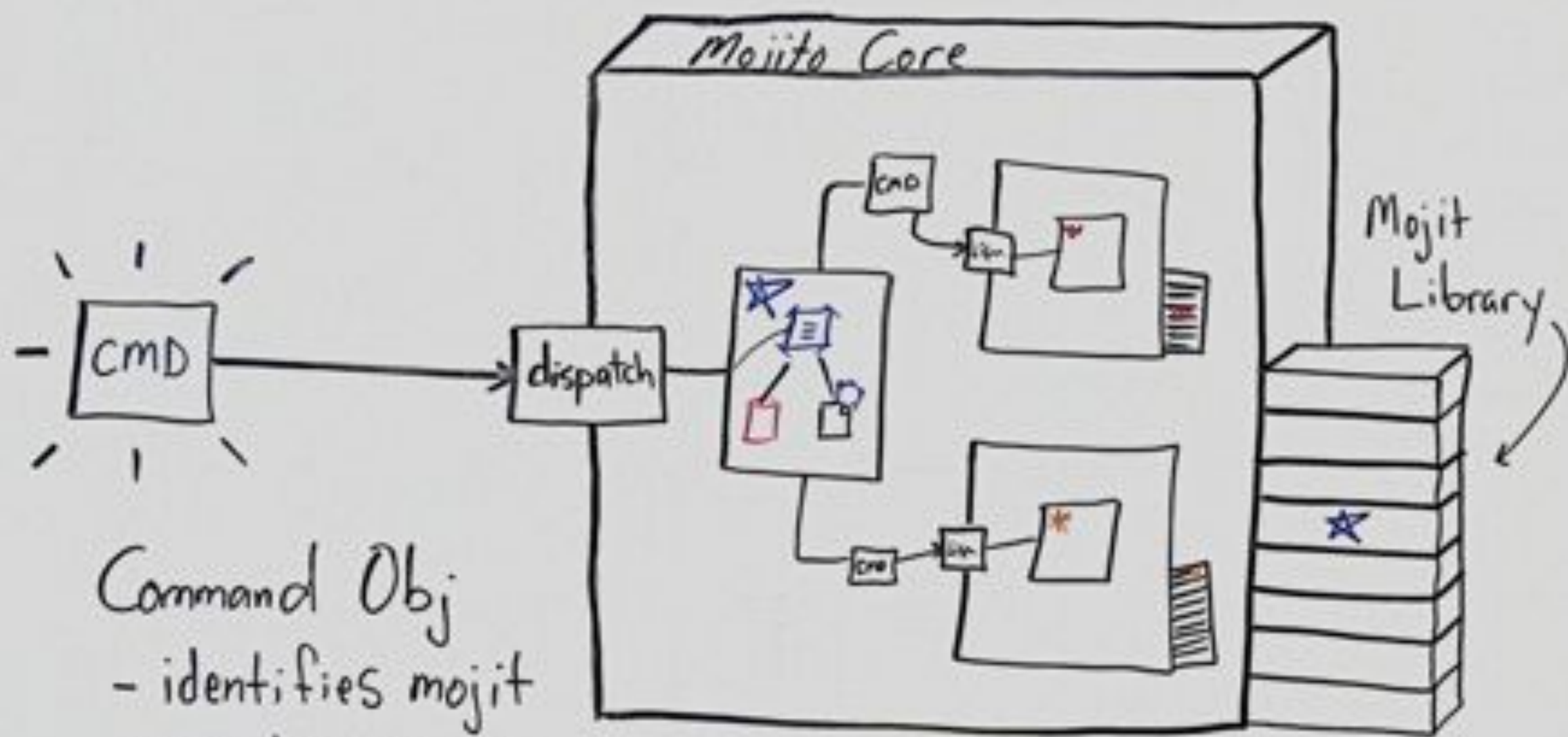
Command Obj

- identifies mojit
- provides output functions



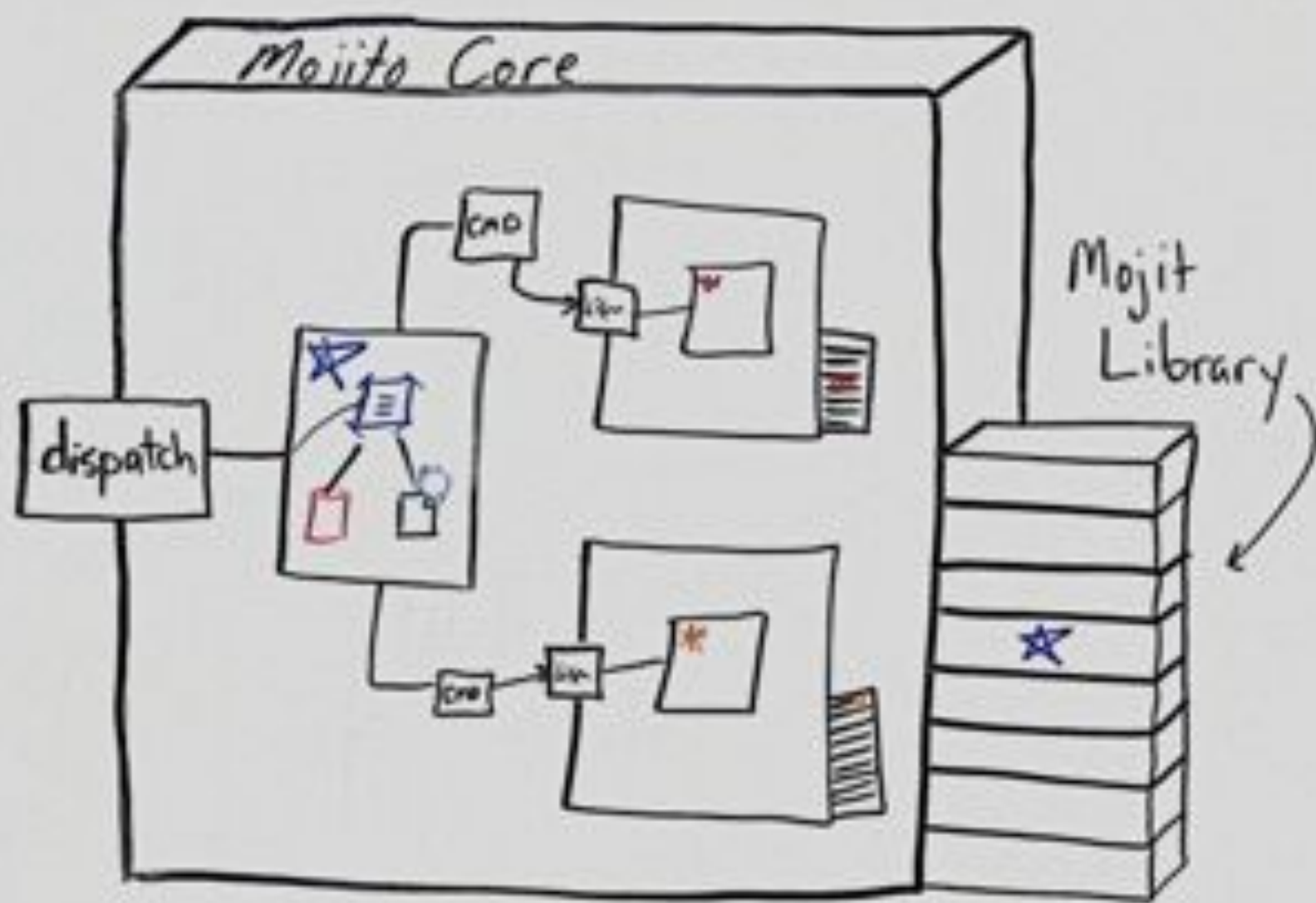
Command Obj

- identifies mojit
- provides output functions

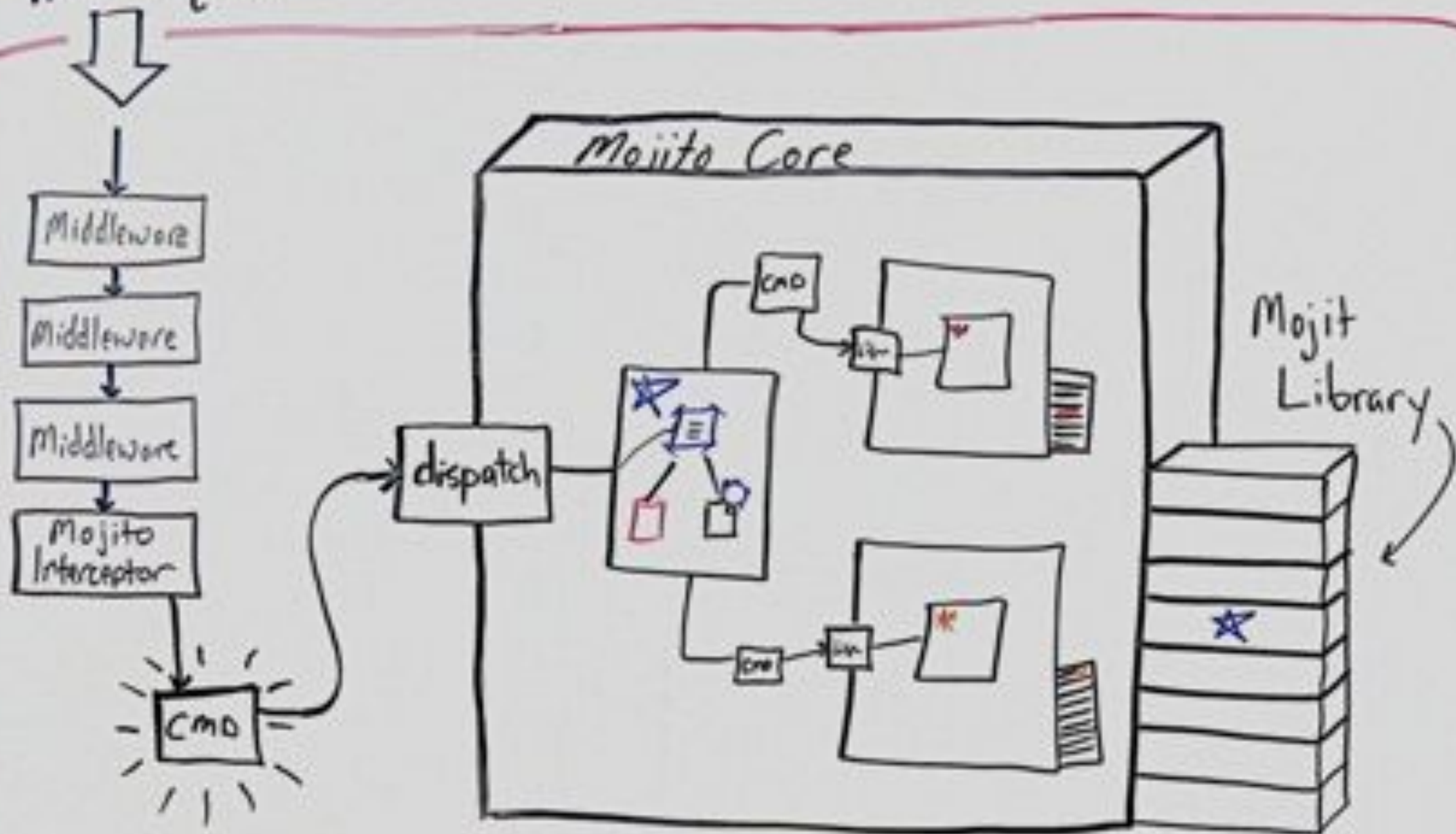


Command Obj

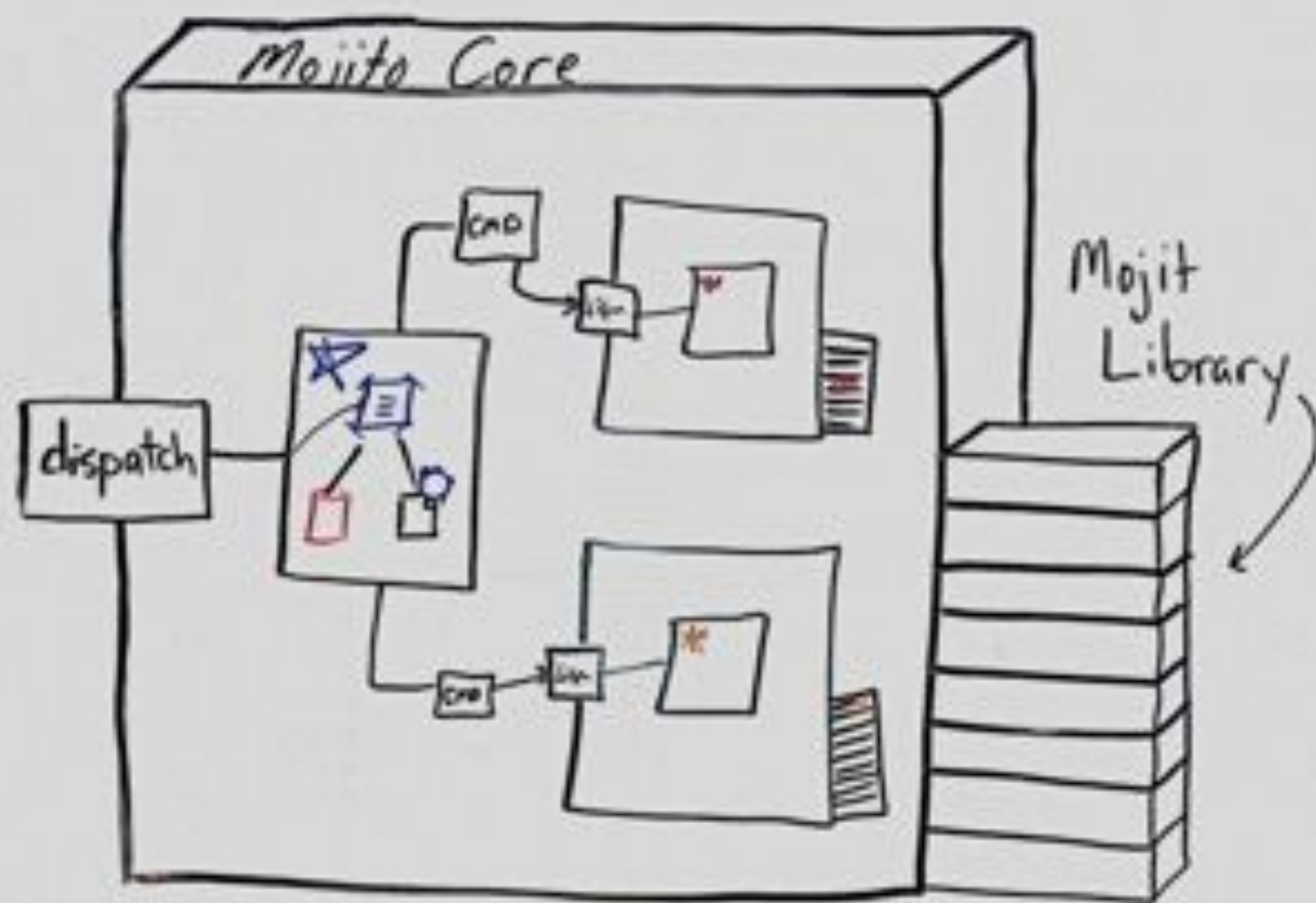
- identifies mojit
- provides output functions



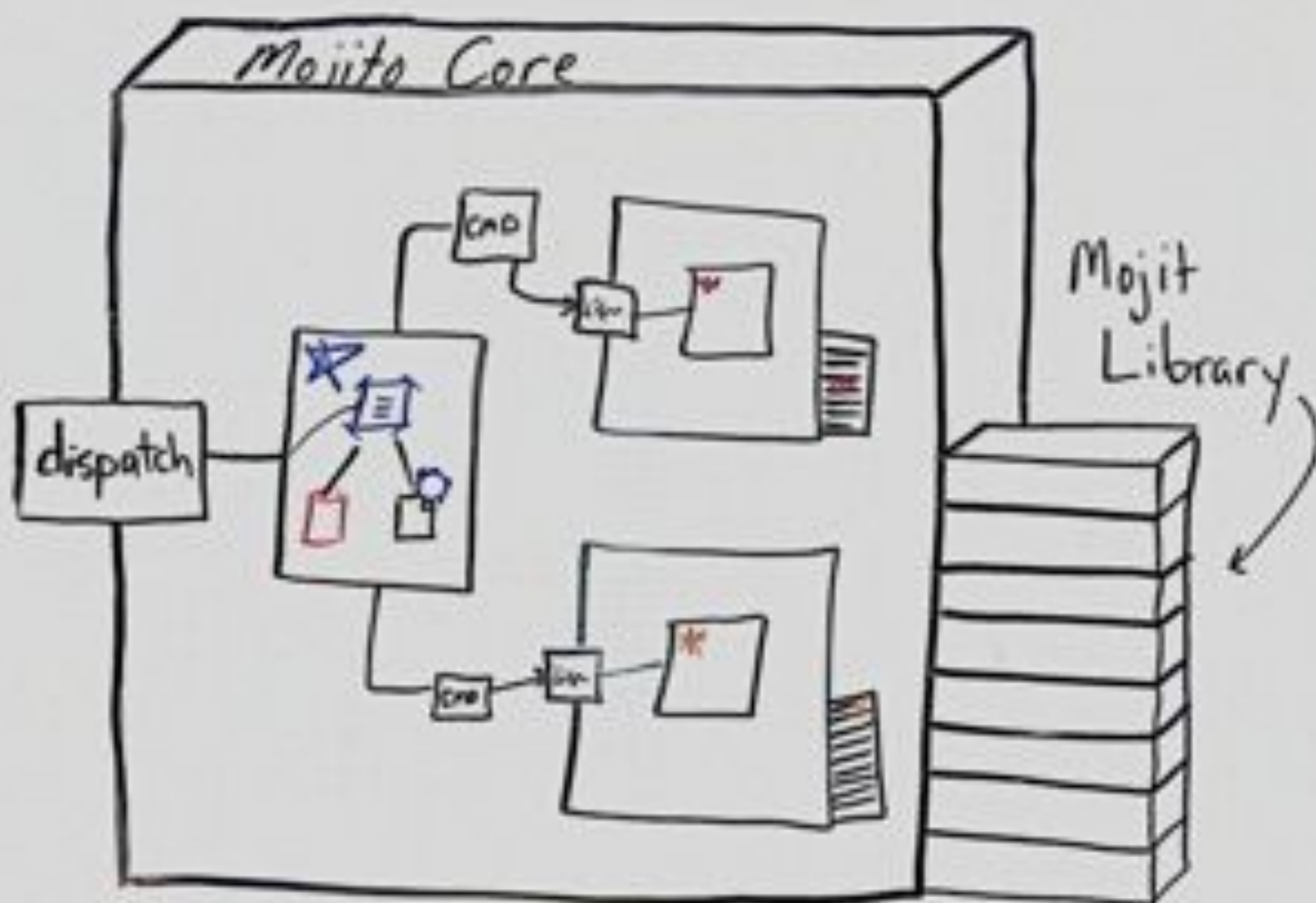
HTTP Request



HTTP Server

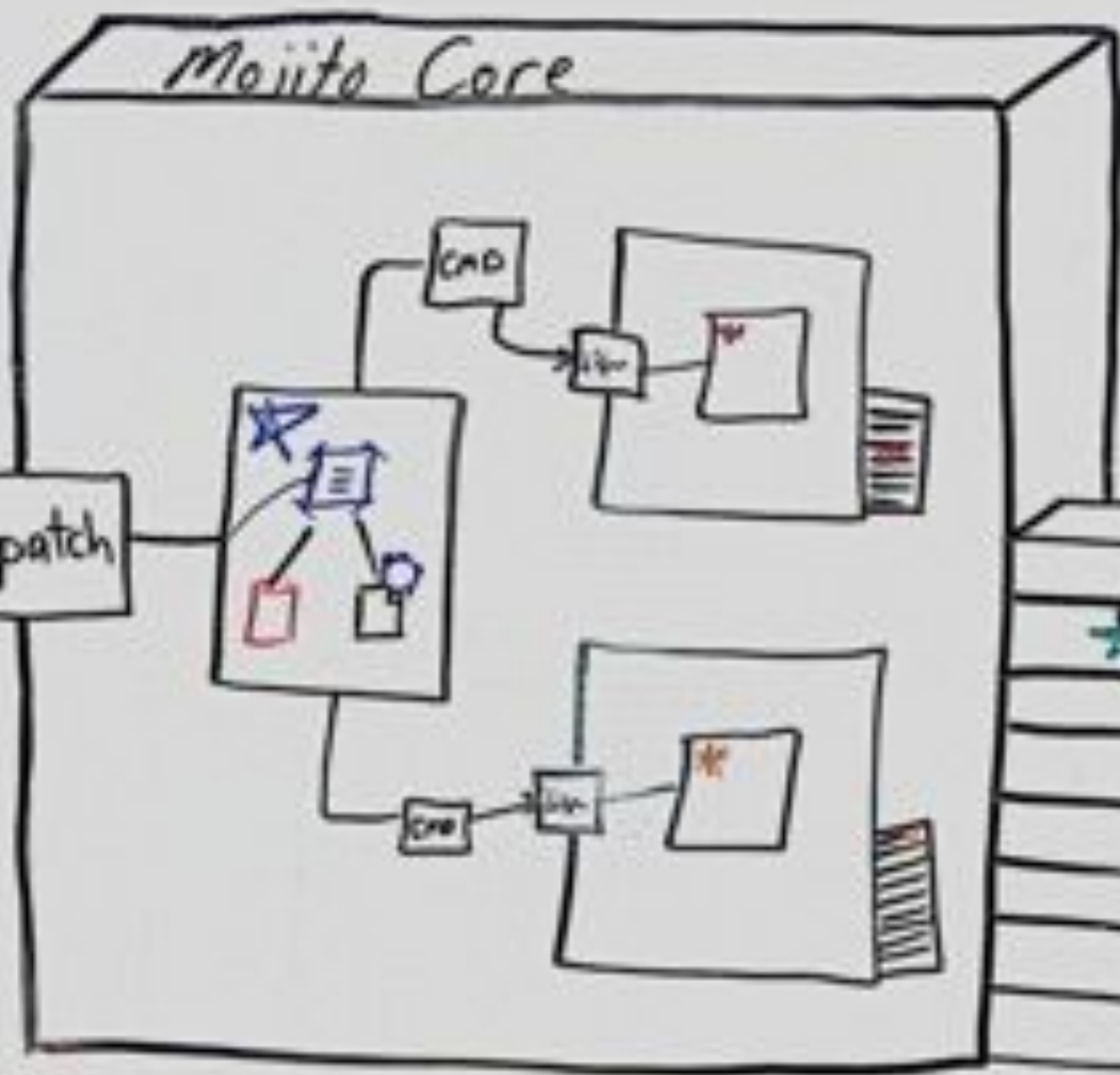
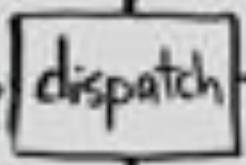
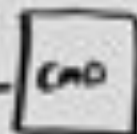


Browser Client

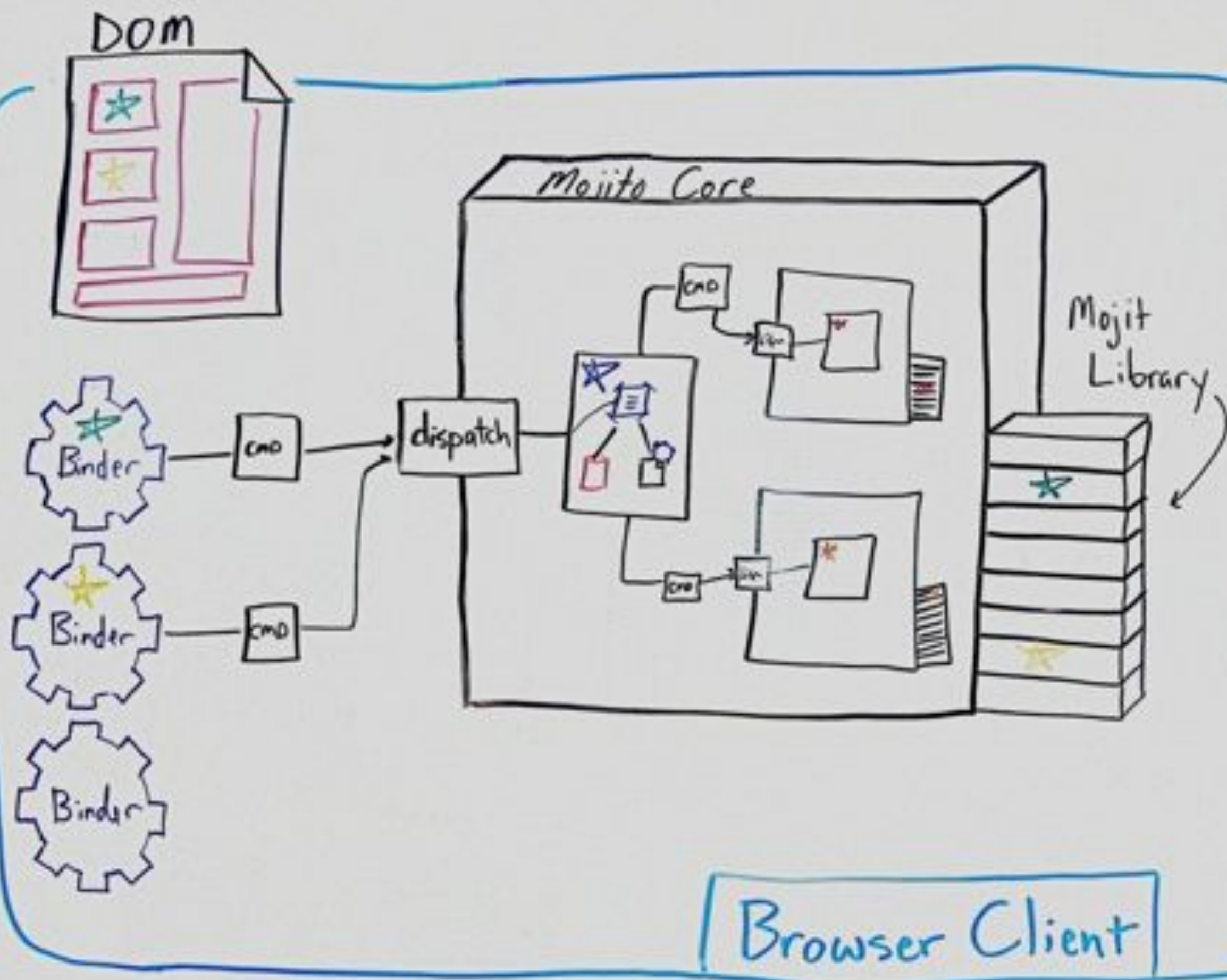


Browser Client

DOM



Browser Client



DOM

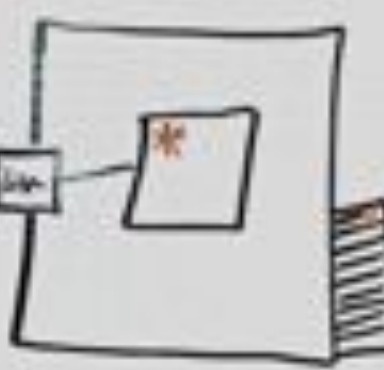
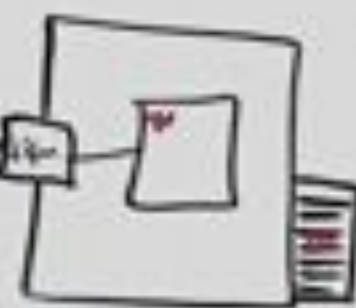
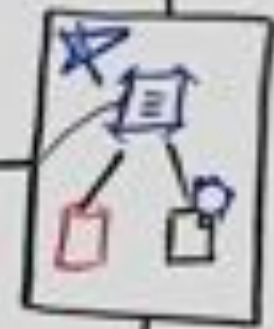
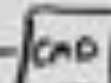
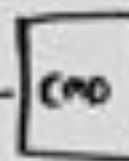
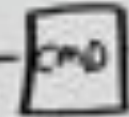


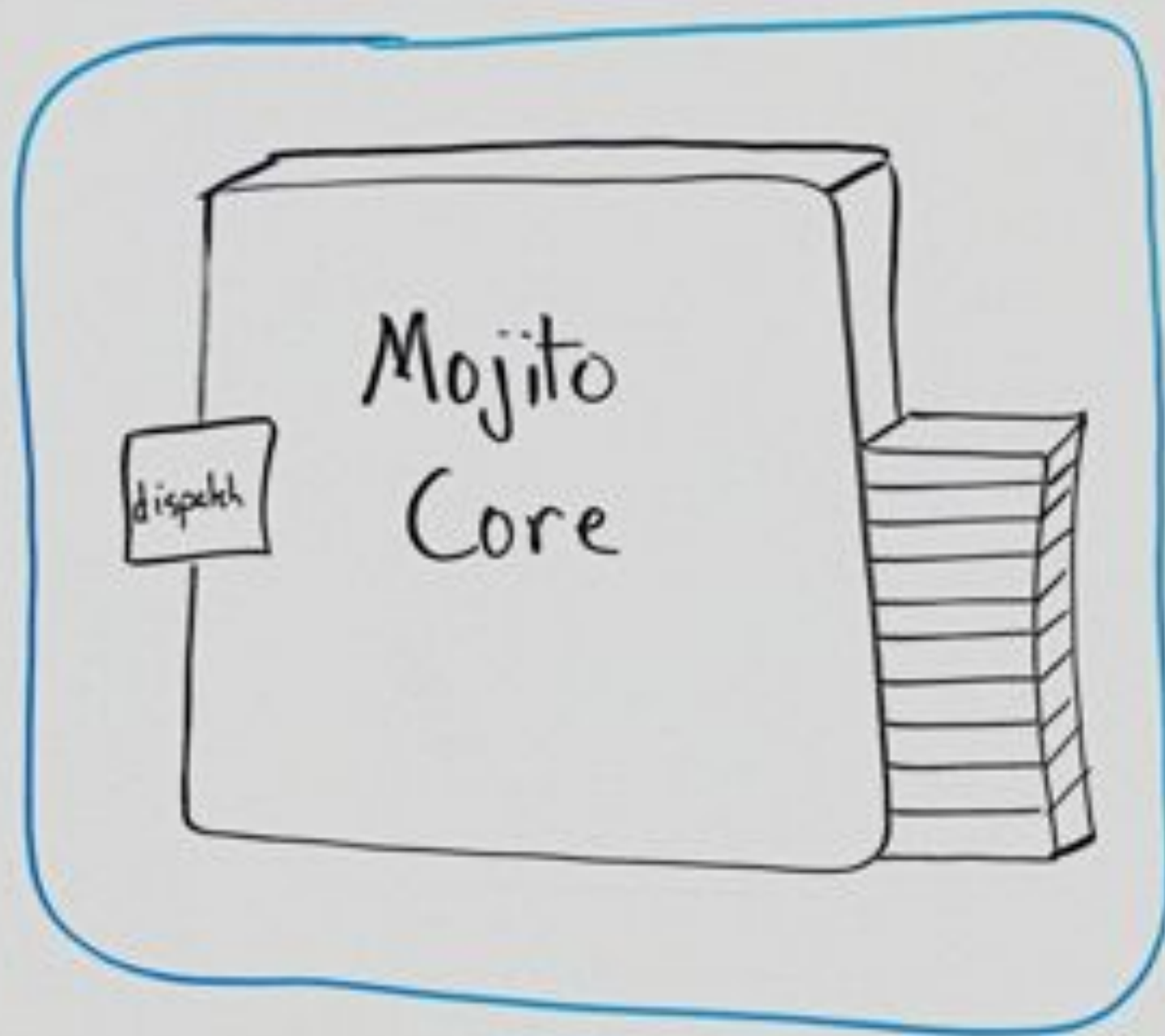
Mojito Core

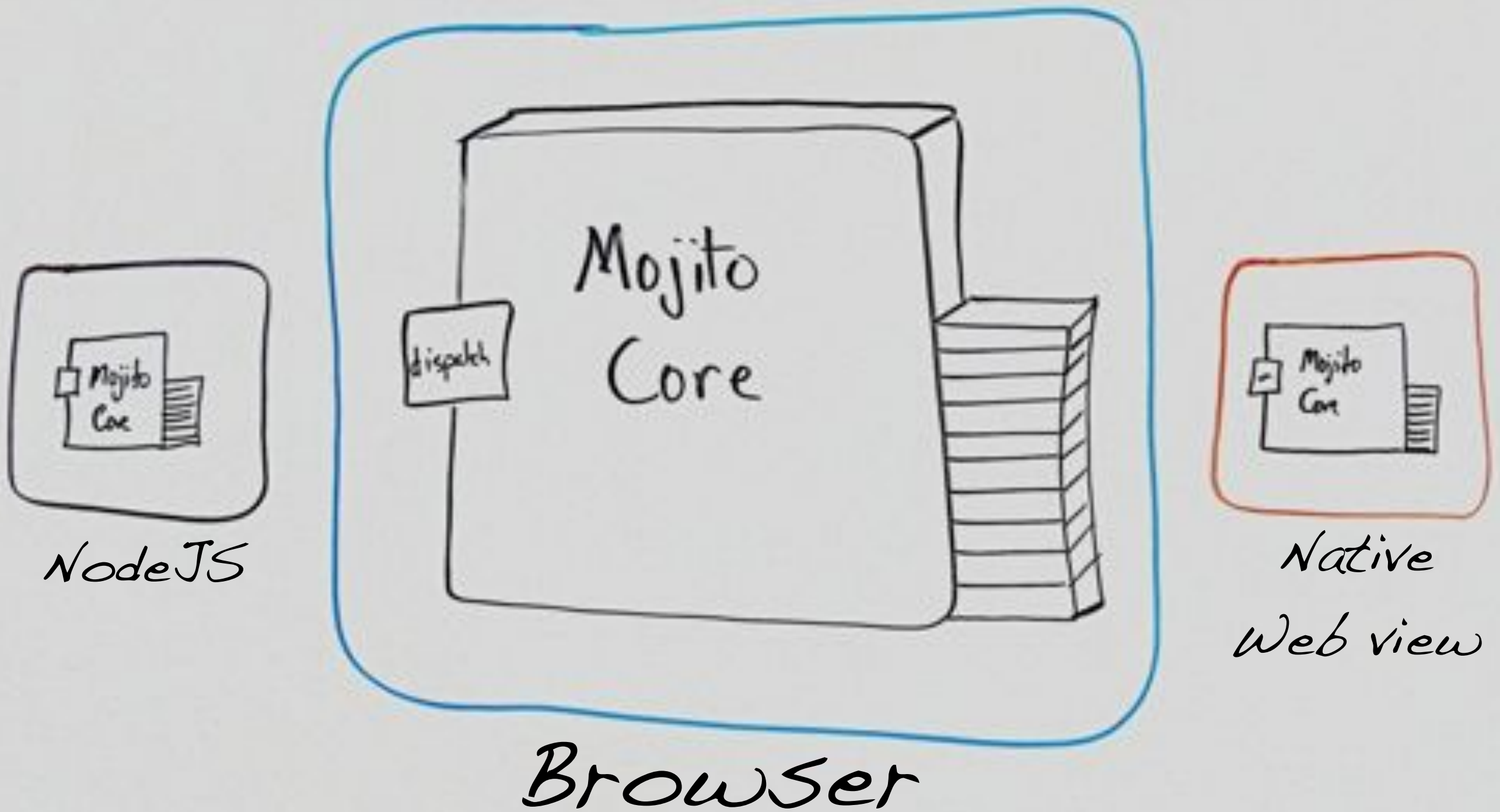
dispatch

Mojit Library

Browser Client



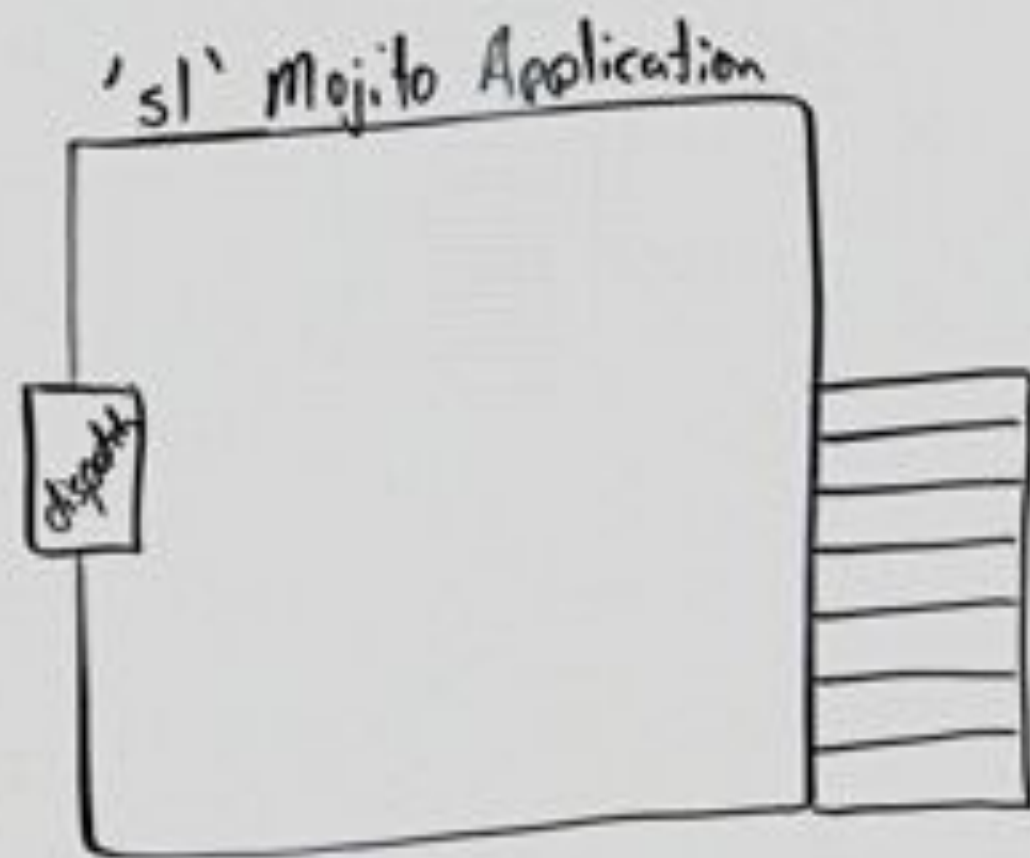




\$> mojito create app sl

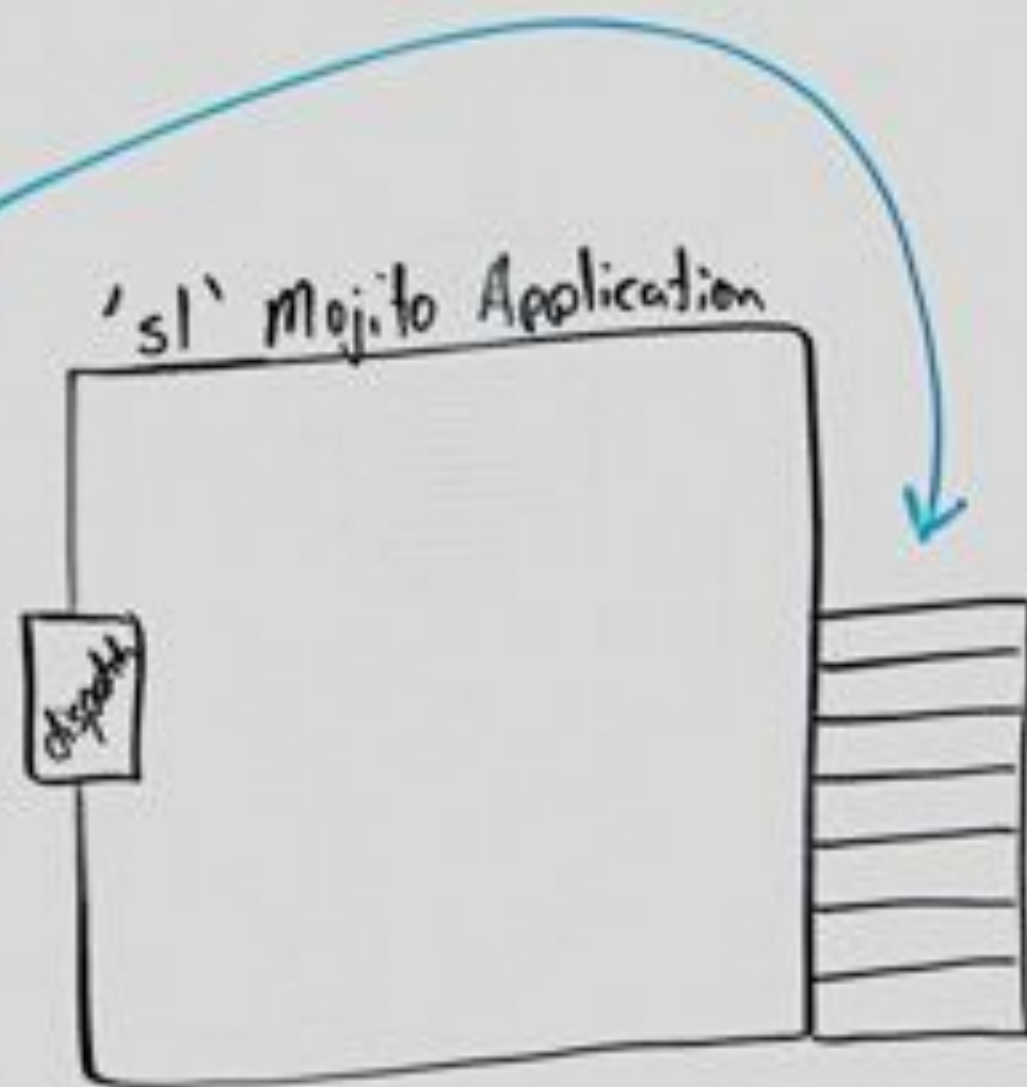
\$> mojitto create app sl

sl/
application.json
assets
index.js
mojits
package.json
Server.js



\$> mojitto create app sl

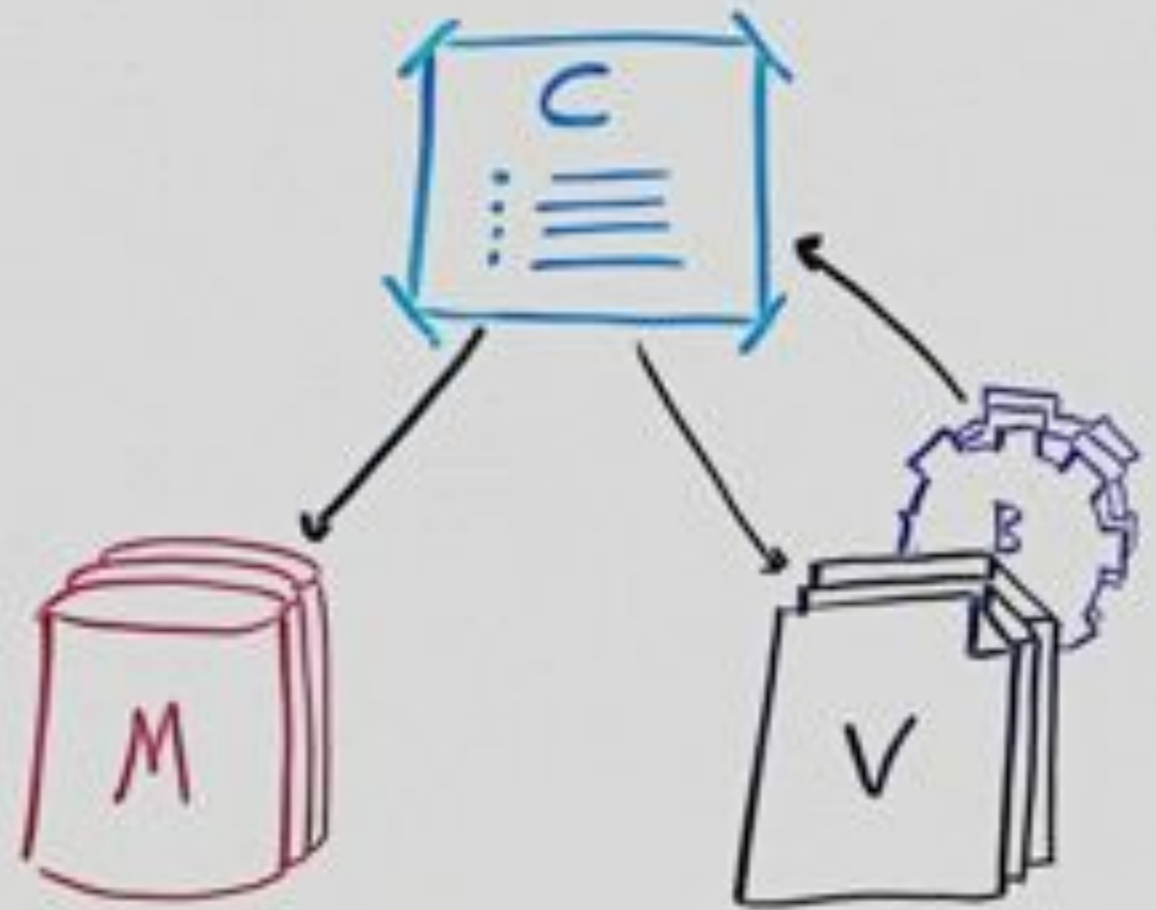
sl/
application.json
assets
index.js
mojits
package.json
Server.js



\$> mojit create mojit Foo

s/mojits/Foo

assets
binders
controller.server.js
definition.js
models
tests
Views



\$> mojit create mojit Foo

sl/mojits/Foo

assets

binders

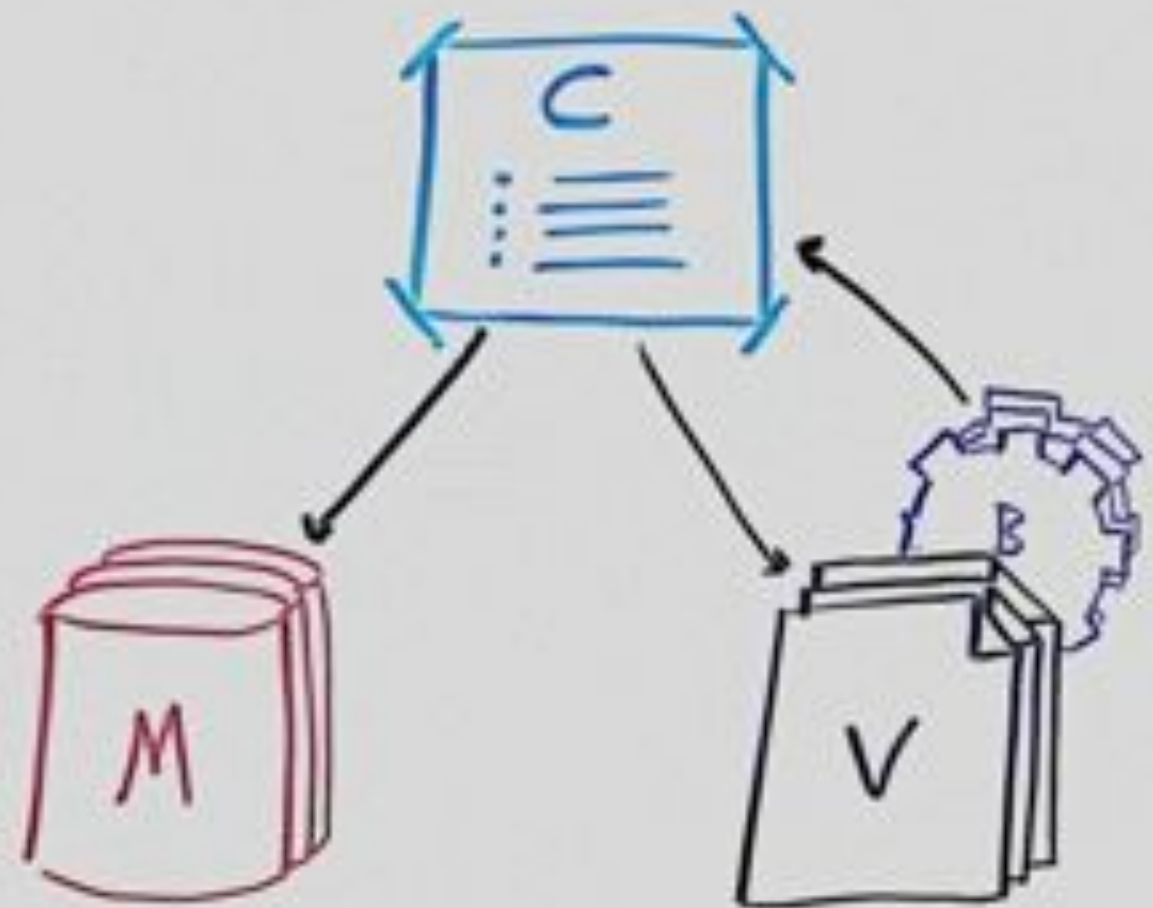
controller.server.js

definition.js

models

tests

Views



\$> mojit create mojit Foo

sl/mojits/Foo

assets

binders

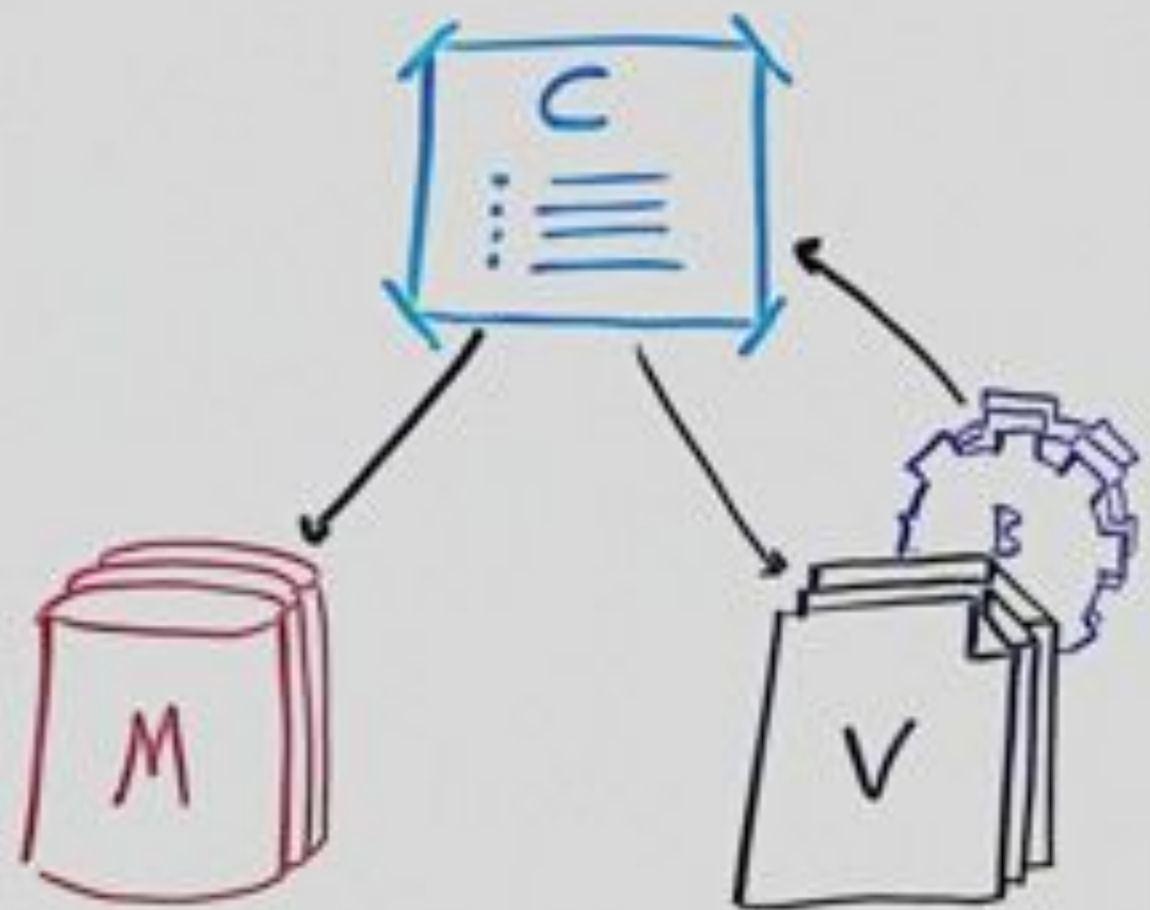
controller.server.js

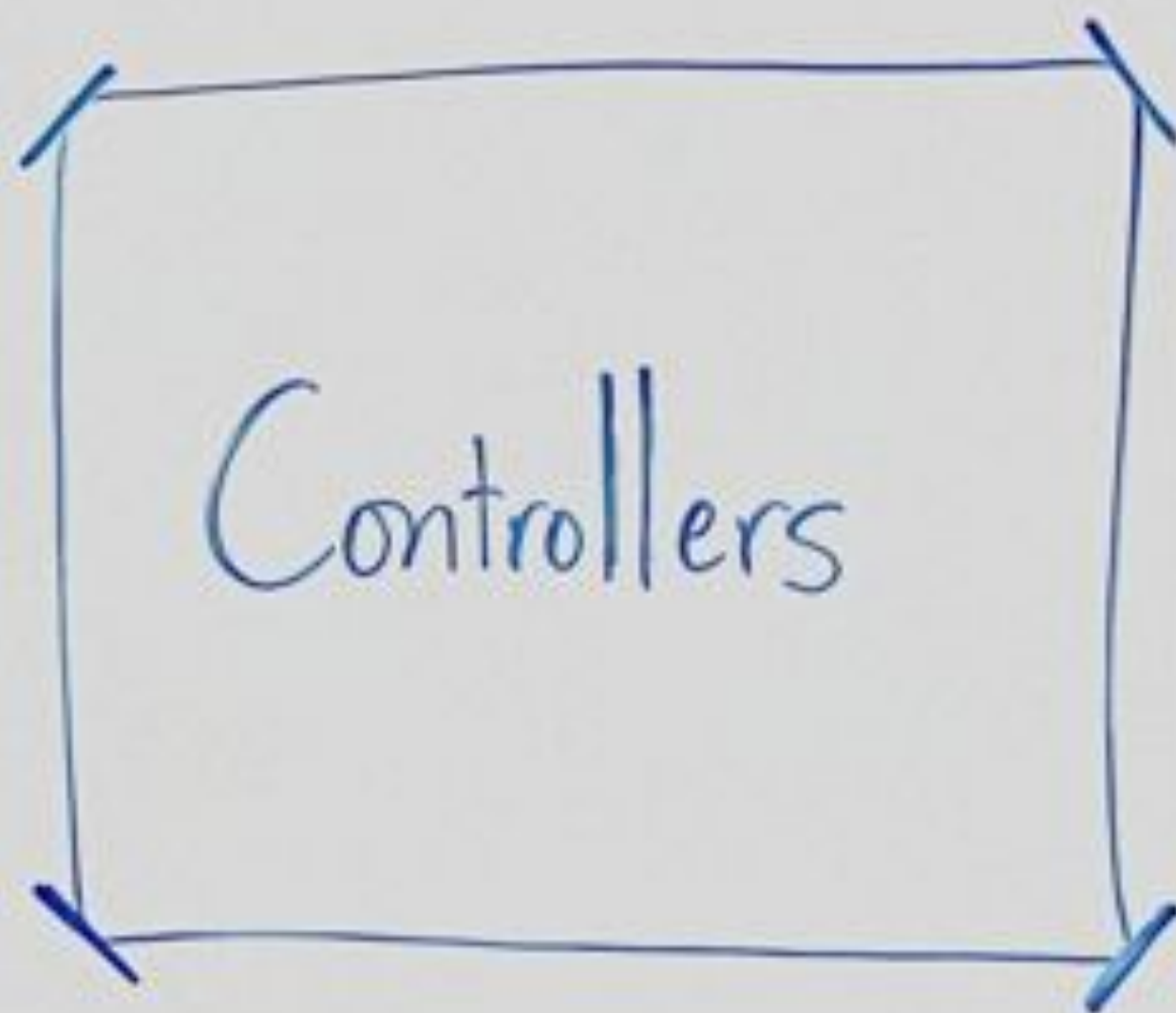
definition.js

models

tests

Views





ActionContext

API for Controllers

- GET DATA
- PUSH DATA

GET DATA

From:

Models

ac.models.*.getData();

GET DATA

From:

Models

```
ac.models.*.getData();
```

Config

```
ac.config.get('key');
```


GET DATA

From:

Models

```
ac.models.*.getData();
```

Config

```
ac.config.get('key');
```

Environment

```
ac.device.get('make');
```

GET DATA

From:

Models

```
ac.models.*.getData();
```

Config

```
ac.config.get('key');
```

Environment

```
ac.device.get('make');
```

Command

```
ac.params.body('key');
```

PUSH DATA

Assets

```
ac.assets.addCss('./style.css');
```

PUSH DATA

Assets

```
ac.assets.addCss('./style.css');
```

Response
Meta

```
ac.cookie.set('flavor', 'choco-chip');  
ac.http.addHeader('x-foo', 'val');
```

PUSH DATA

Assets

```
ac.assets.addCss('./style.css');
```

Response
Meta

```
ac.cookie.set('flavor', 'choco-chip');  
ac.http.addHeader('x-foo', 'val');
```

Response
Body

```
ac.done('Write this string!');  
ac.error('Shit happened :-(');
```


ADD ONS

ac.params.

.config.

.http.

.cookie.

.composite

.assets.

ADD ONS

ac.params.
 .config.
 .http.
 .cookie.
 .composite.
 .assets.

These are already
framework extensions.
You can make your own!

Models

- Simple static functions
- MUST NOT BLOCK
EVENT LOOP



VIEWS

sl/mojits/Foo/views

index.mu.html

Controller....

```
index: function(ac) {  
  ac.models.bar.getData(function(err, data) {  
    ac.done(data);  
  });  
}
```

VIEWS

sl/mojits/Foo/views

index.mu.html

Controller....

```
index: function(ac) {  
  ac.models.bar.getData(function(err, data) {  
    ac.done(data);  
  });  
}
```


VIEWS

sl/mojits/Foo/views

index.mu.html

other.mu.html

Controller....

```
index: function(ac) {  
  ac.models.bar.getData(function(err, data) {  
    ac.done(data, {  
      view: { name: 'other' }  
    });  
  });  
}
```

meta



VIEWS

sl/mojits/Foo/views


index.mu.html

other.mu.html

Controller....

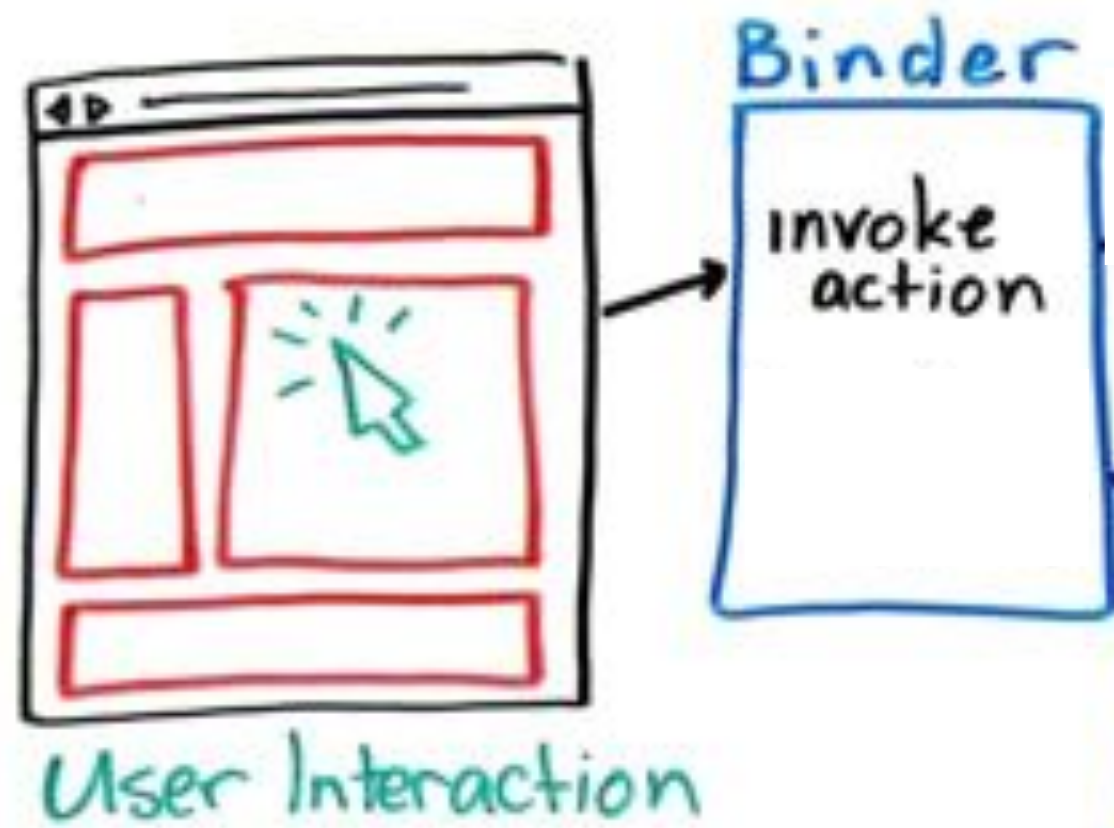
```
index: function(ac) {  
  ac.models.bar.getData(function(err, data) {  
    ac.done(data, {  
      view: { name: other }  
    });  
  });  
}
```

meta

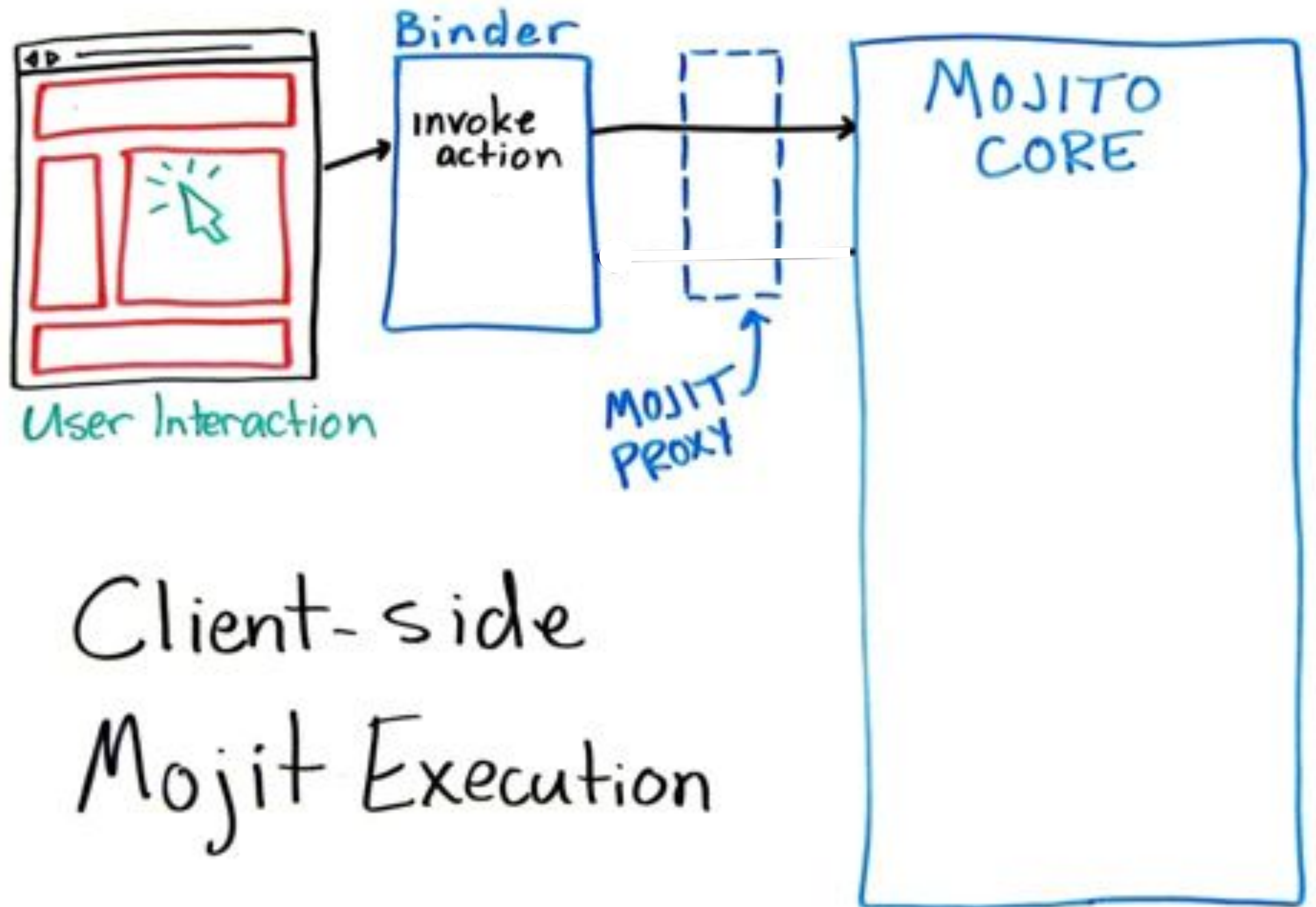


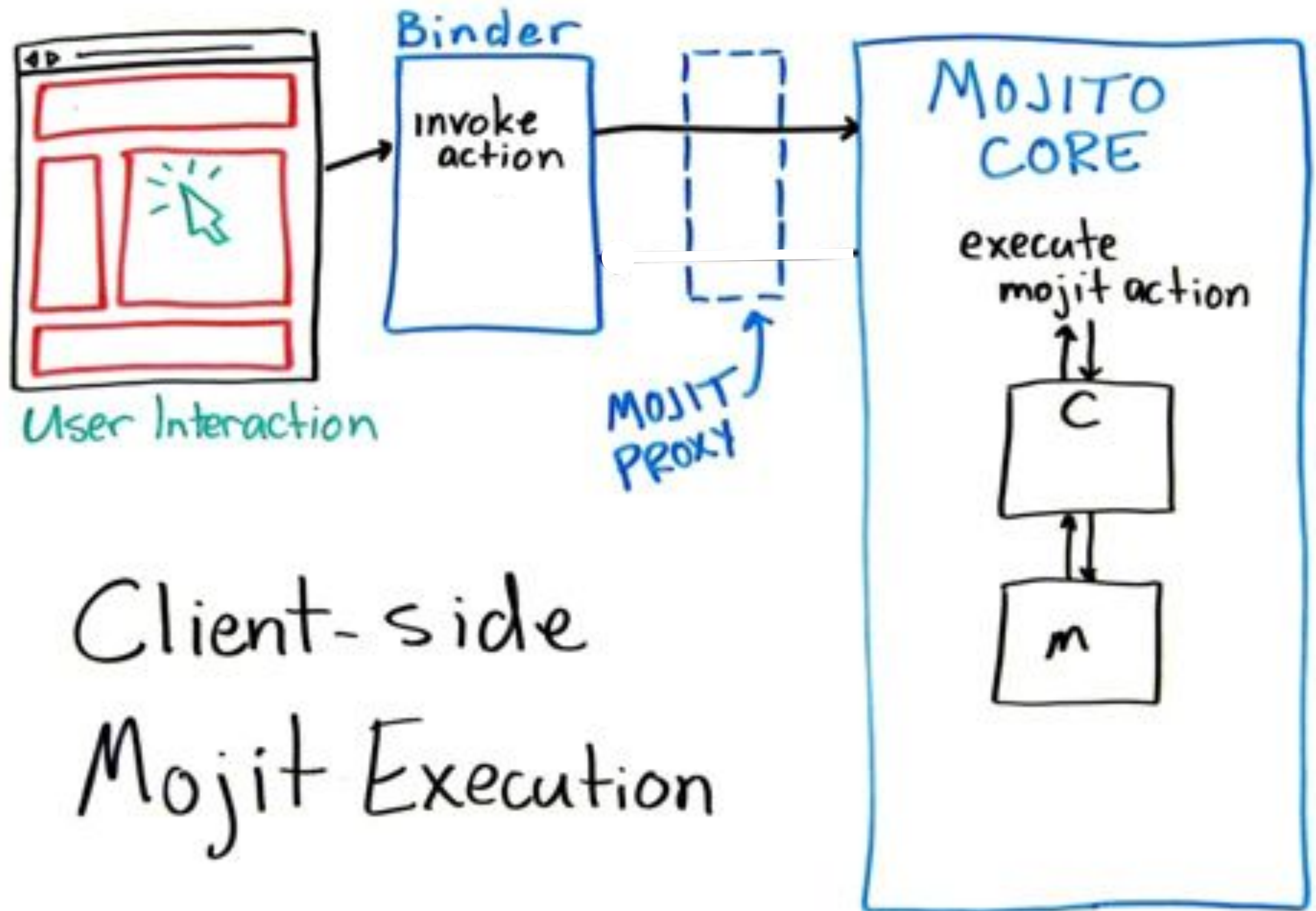
BINDERS

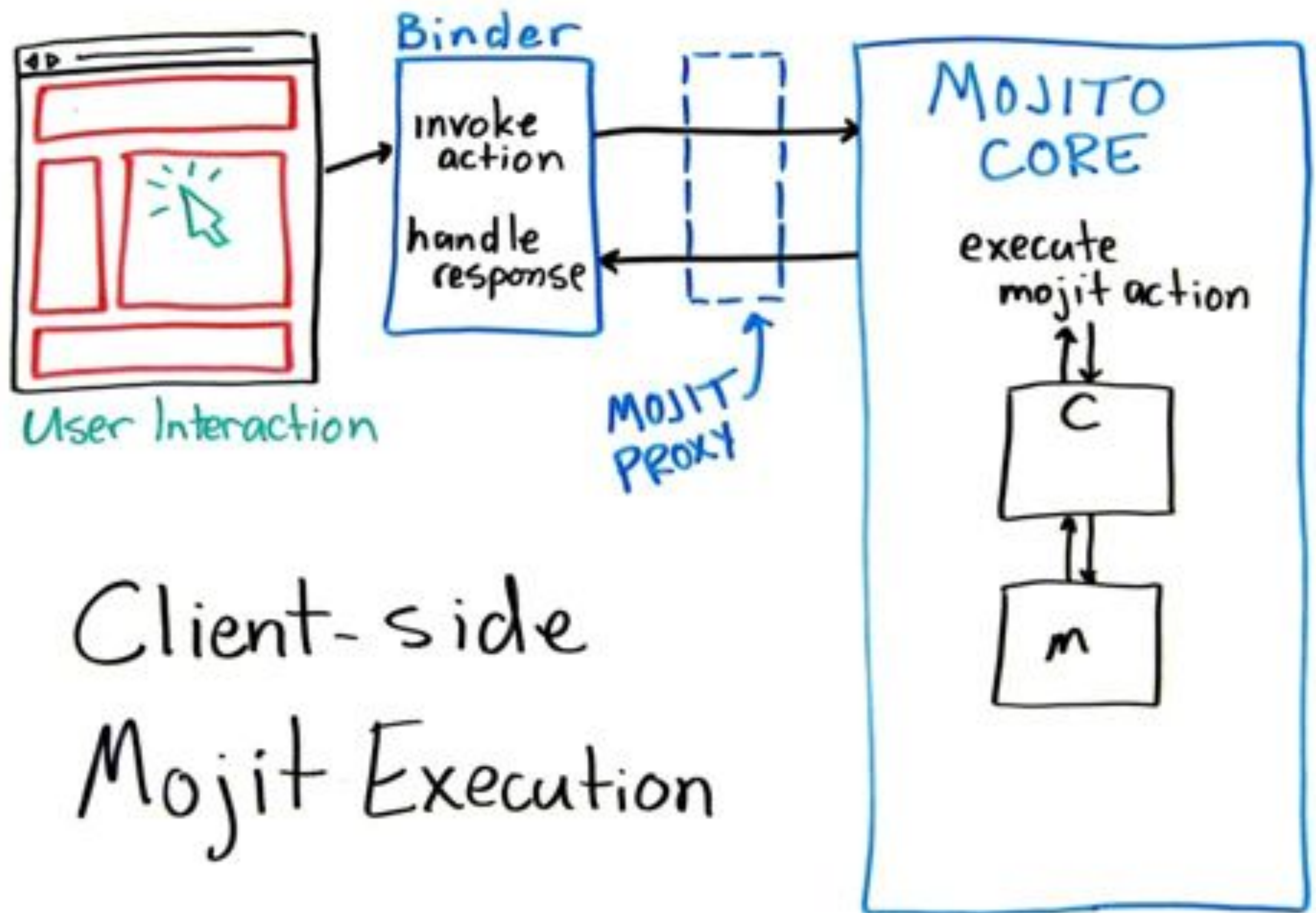
- each view has its own binder
- given a DOM node to apply UI event listeners
- interacts with Mojito Client runtime through a proxy



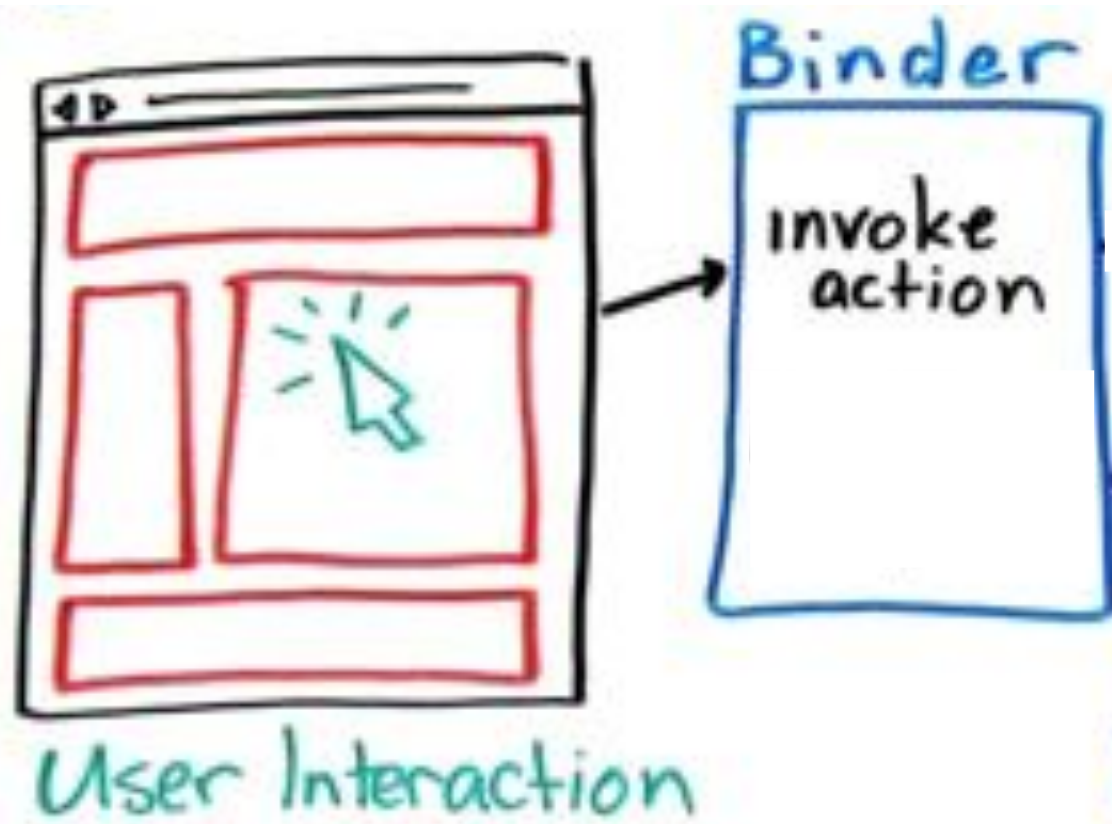
Client-side
Mojit Execution



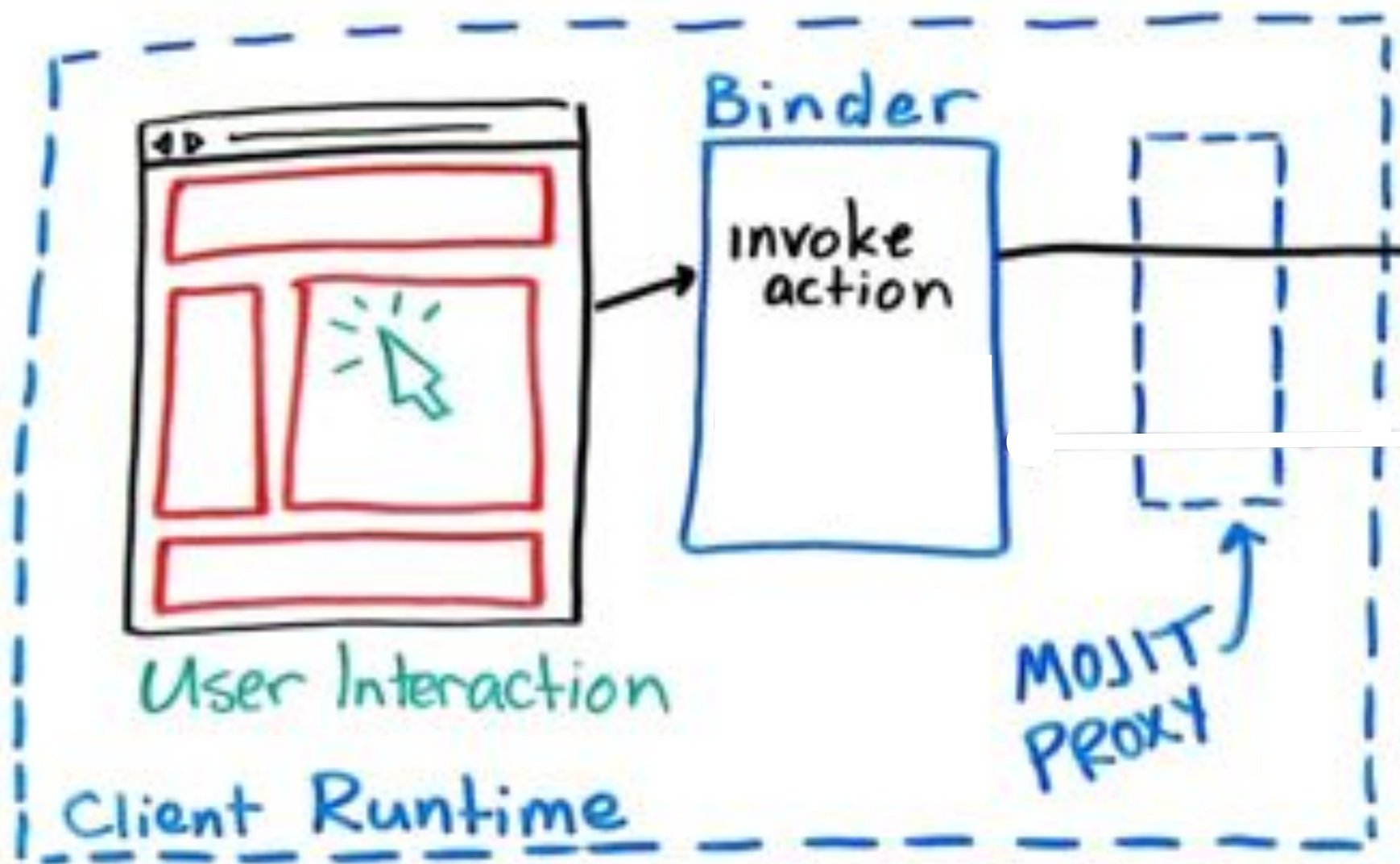




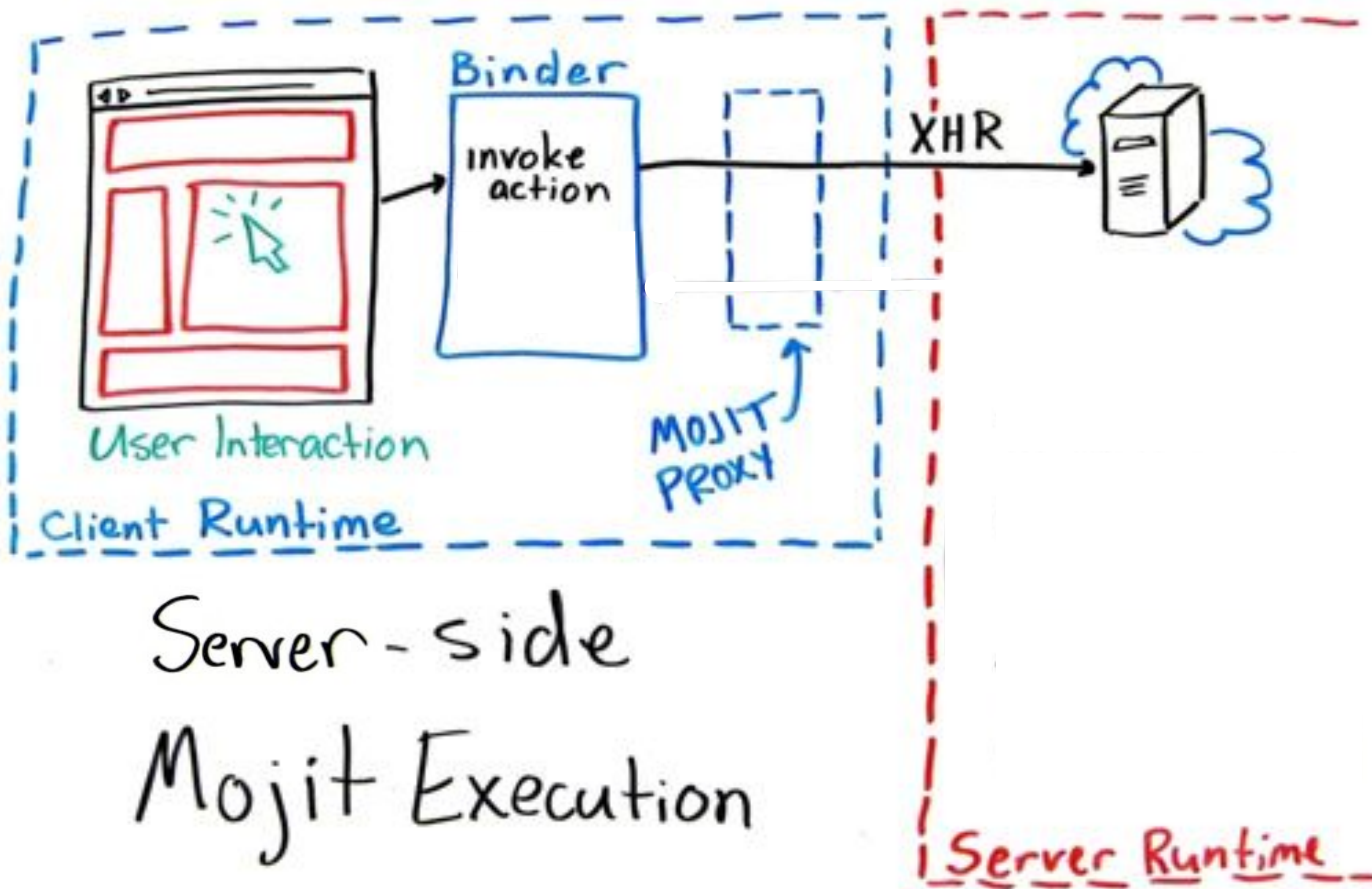
Client-side
Mojit Execution

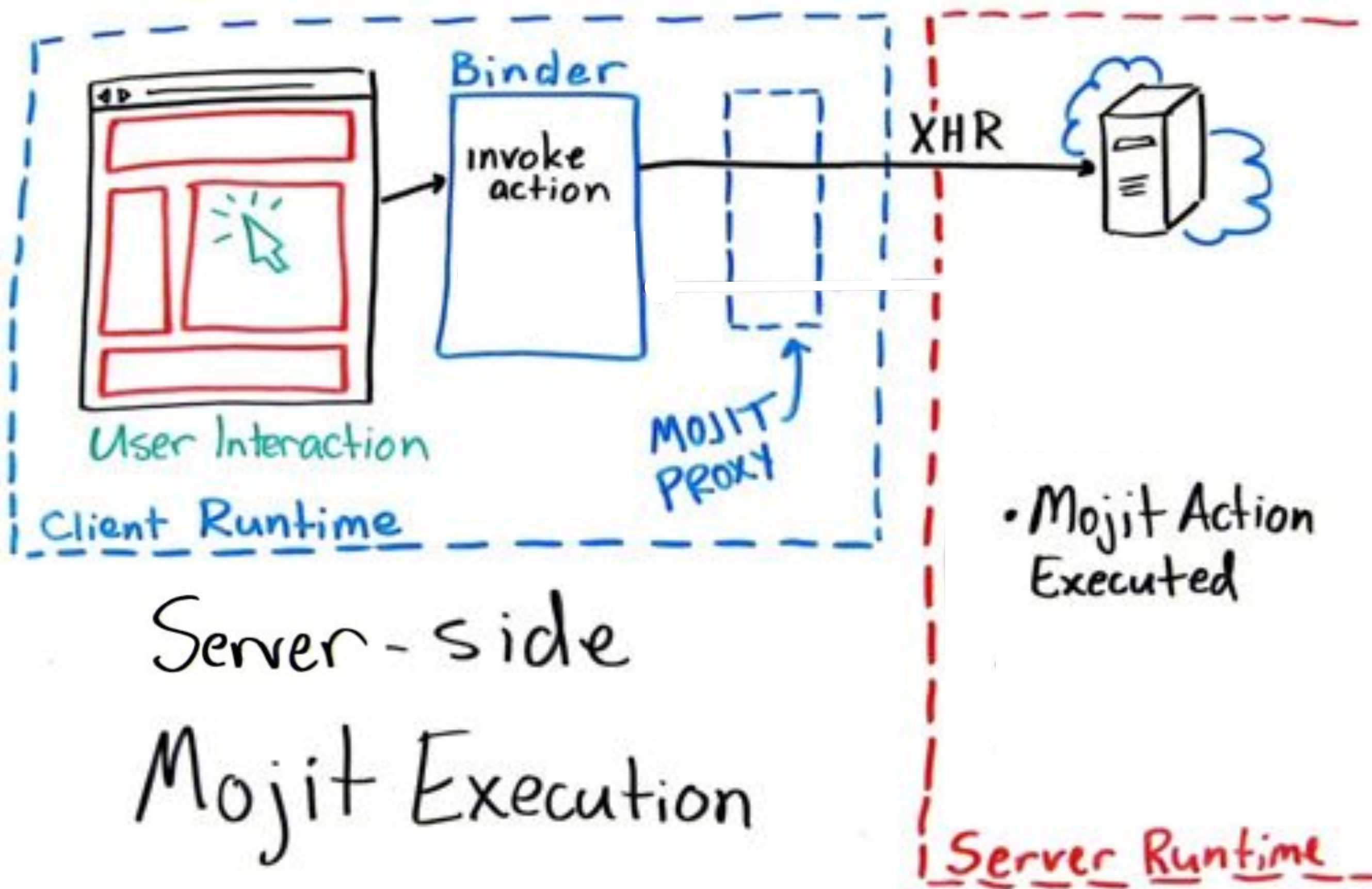


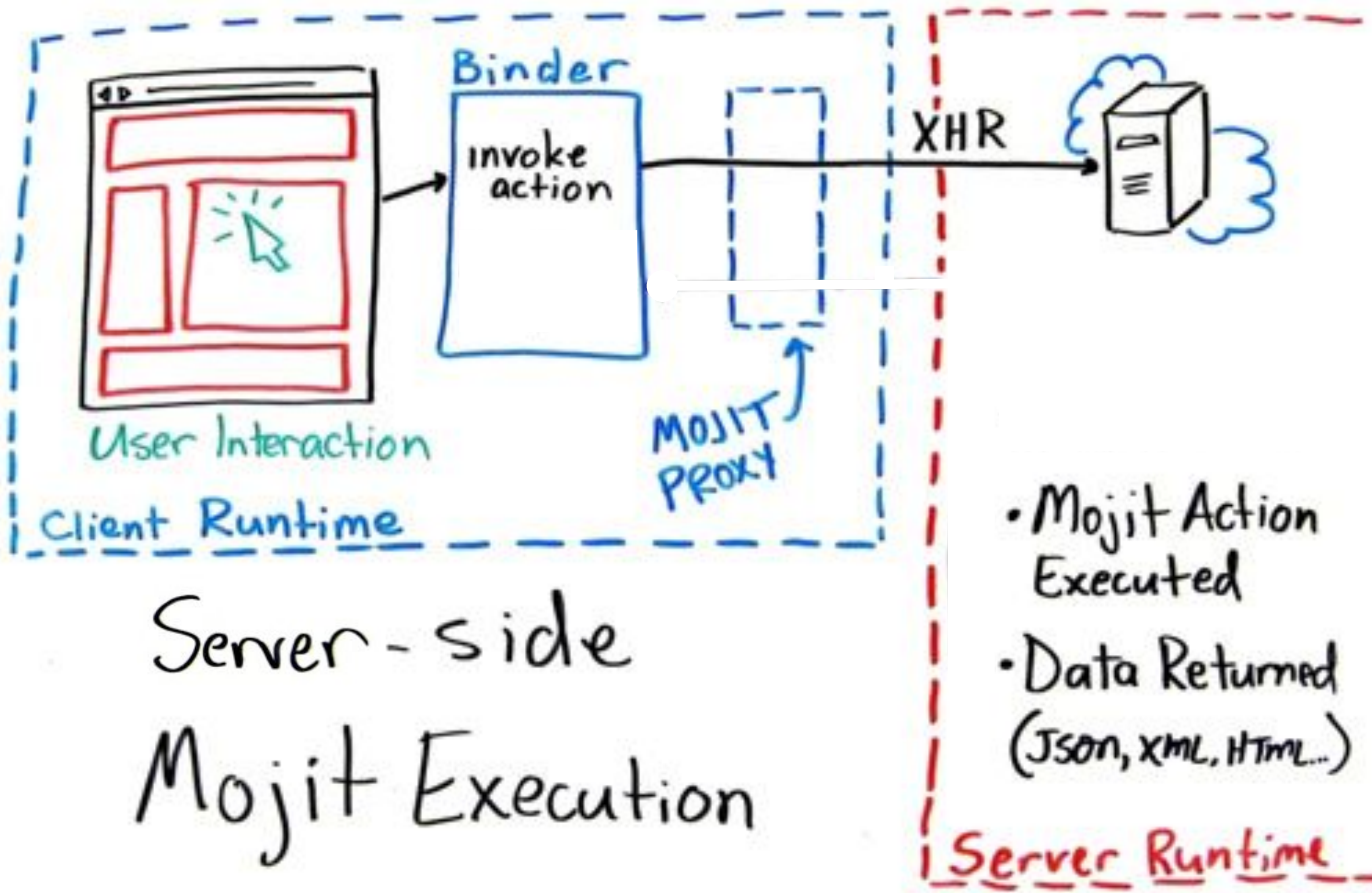
Server-side
Mojit Execution

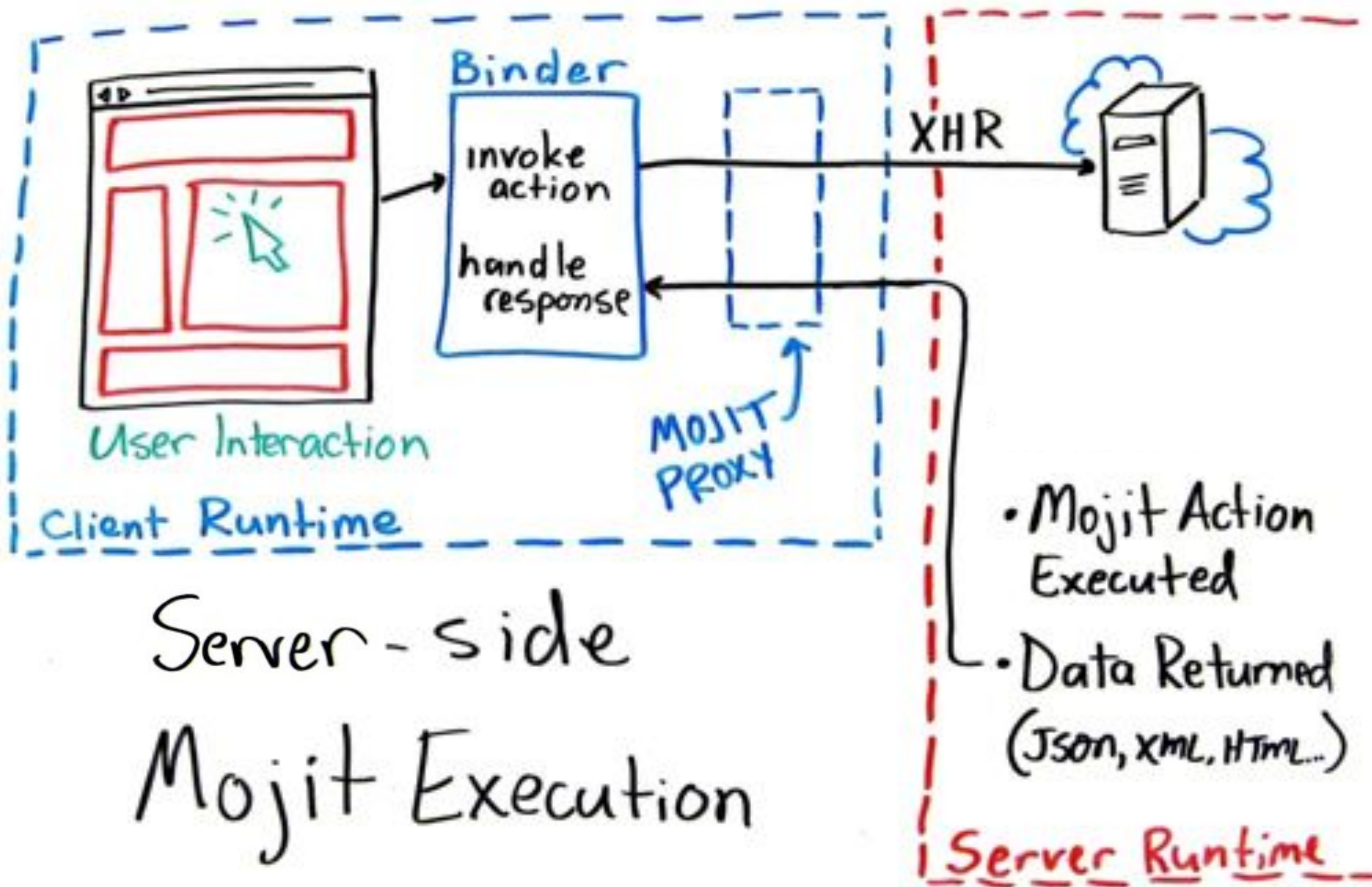


Server-side
Mojito Execution











@Fabian_Frank

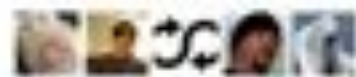
Fabian Frank

This week our node.js stack beat PHP on all scales. No prototype, production quality and soon to be seen in the wild.

#hooray

17 Sep via [Mobile Web](#) [Unfavorite](#) [Undo Retweet](#) [Reply](#)

Retweeted by [vincicat](#) and 5 others




```
/autoload/rest.common.js  
[YUI-INFO] (1316322583095) get: Loaded: /Users/mtaylor/dev/yahoo/cocktails/mojito/trunk/source/lib/  
app/autoload/rest.common.js  
[YUI-INFO] (1316322583095) loader: attempting to load ycb, /Users/mtaylor/.node_libraries/.npm/yui3  
-core/3.3.0/package/build/  
[YUI-INFO] (1316322583095) get: URL: /Users/mtaylor/dev/yahoo/cocktails/mojito/trunk/source/lib/app  
/autoload/ycb.common.js  
[YUI-INFO] (1316322583098) get: Loaded: /Users/mtaylor/dev/yahoo/cocktails/mojito/trunk/source/lib/  
app/autoload/ycb.common.js  
[YUI-INFO] (1316322583098) loader: loader finishing: success, yui_3_3_0_1_13163225819981, mojito-pe  
rf, mojito, mojito-util, yui-base, querystring-stringify-simple, array-extras, querystring-parse, mojito-ro  
ute-maker, mojito-view-renderer, json-stringify, oop, parallel, event-custom, mojito-output-adapter-addon,  
mojito-meta-addon, mojito-analytics-addon, mojito-assets-addon, mojito-params-addon, mojito-composite-ad  
don, mojito-config-addon, mojito-http-addon, mojito-cookie-addon, get, mojito-loader, mojito-deploy-addon,  
intl-base, intl, lang/datatype-date, datatype-date, mojito-intl-addon, mojito-partial-addon, mojito-url-ad  
don, mojito-carrier-addon, mojito-device-addon, mojito-i18n-addon, mojito-yca-addon, mojito-yck-addon, moj  
ito-yiv-addon, mojito-mu, mojito-action-context, mojito-controller-context, mojito-resource-store-adapte  
r, mojito-dispatcher, mojito-logger, mojito-test, nodejs-dom, event-base, dom, node-base, dom-style-ie, node  
-style, queue-promote, datatype-xnl, io, io-nodejs, mojito-rest-lib, ycb  
[WARN] (1316322583171) mojito-yca-addon: YCA was not found  
[INFO] (1316322583171) mojito-yca-addon: SKIPPED ActionContext addon "yca"  
[WARN] (1316322583180) mojito-yck-addon: YCK was not found  
[INFO] (1316322583180) mojito-yck-addon: SKIPPED ActionContext addon "yck"  
[DEBUG] (1316322583371) Mojito HTTP Server initialized in 1597ms.
```

✓ Mojito started "strangeloop" on http://localhost:8666/

In Summary

- One codebase, Two runtimes
- 100% JavaScript

In Summary

- One codebase, Two runtimes
- 100% JavaScript
- Soon to be OPEN SOURCE!

Contact Info

Matt Taylor

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@rhyolight