A scenic landscape featuring a variety of green trees in the foreground, a calm body of water with distant hills or land across it, and a bright blue sky filled with wispy white clouds.

# Adventures in Elm

KCDC, 23 June 2016



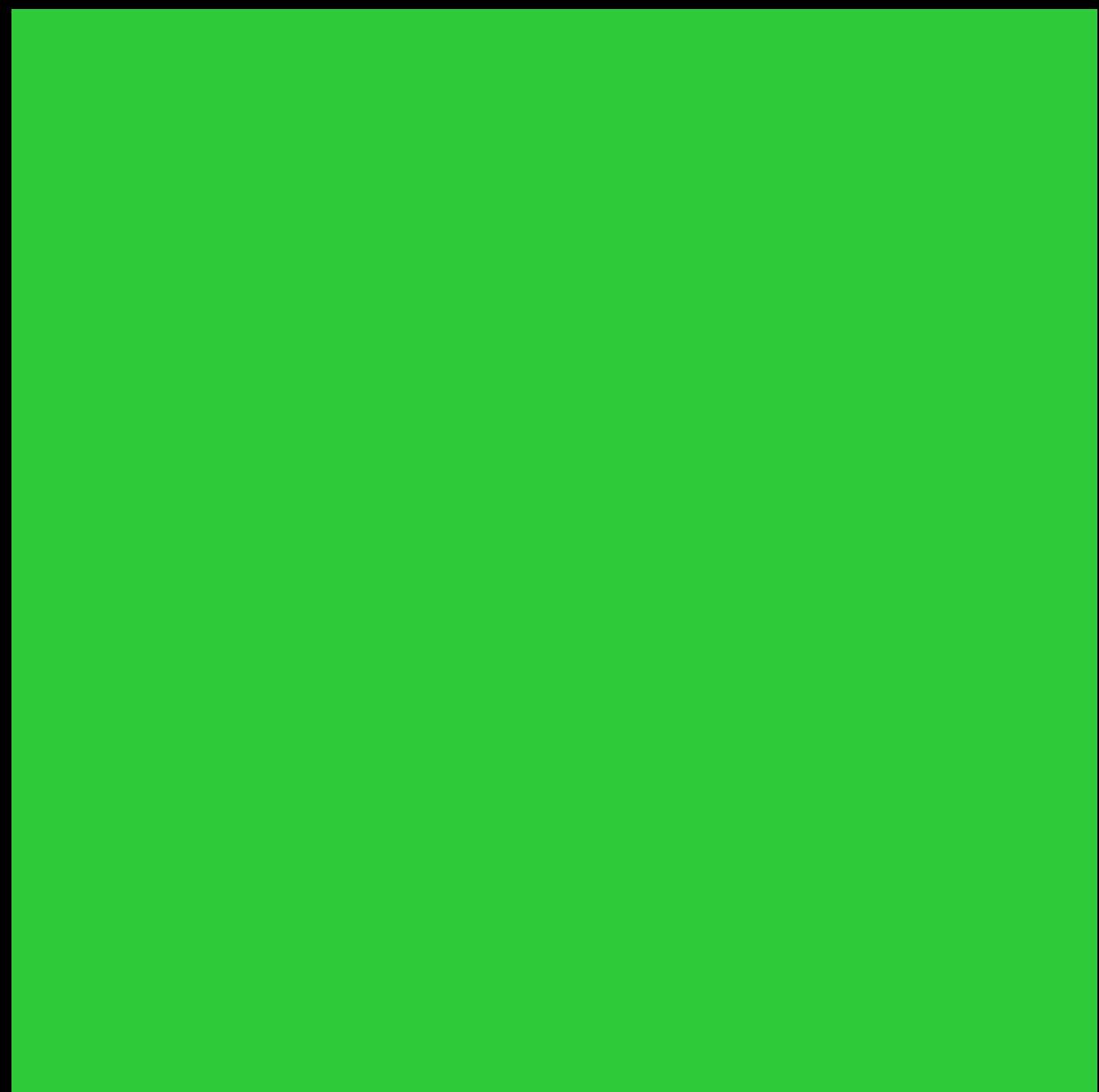
question your principles

The background of the image is a vibrant, abstract composition. It features large, sweeping brushstrokes in various colors: a prominent yellow band across the top, followed by a green band, and a blue band below them. Red and orange accents are scattered throughout, particularly towards the bottom. The overall texture is grainy and painterly.

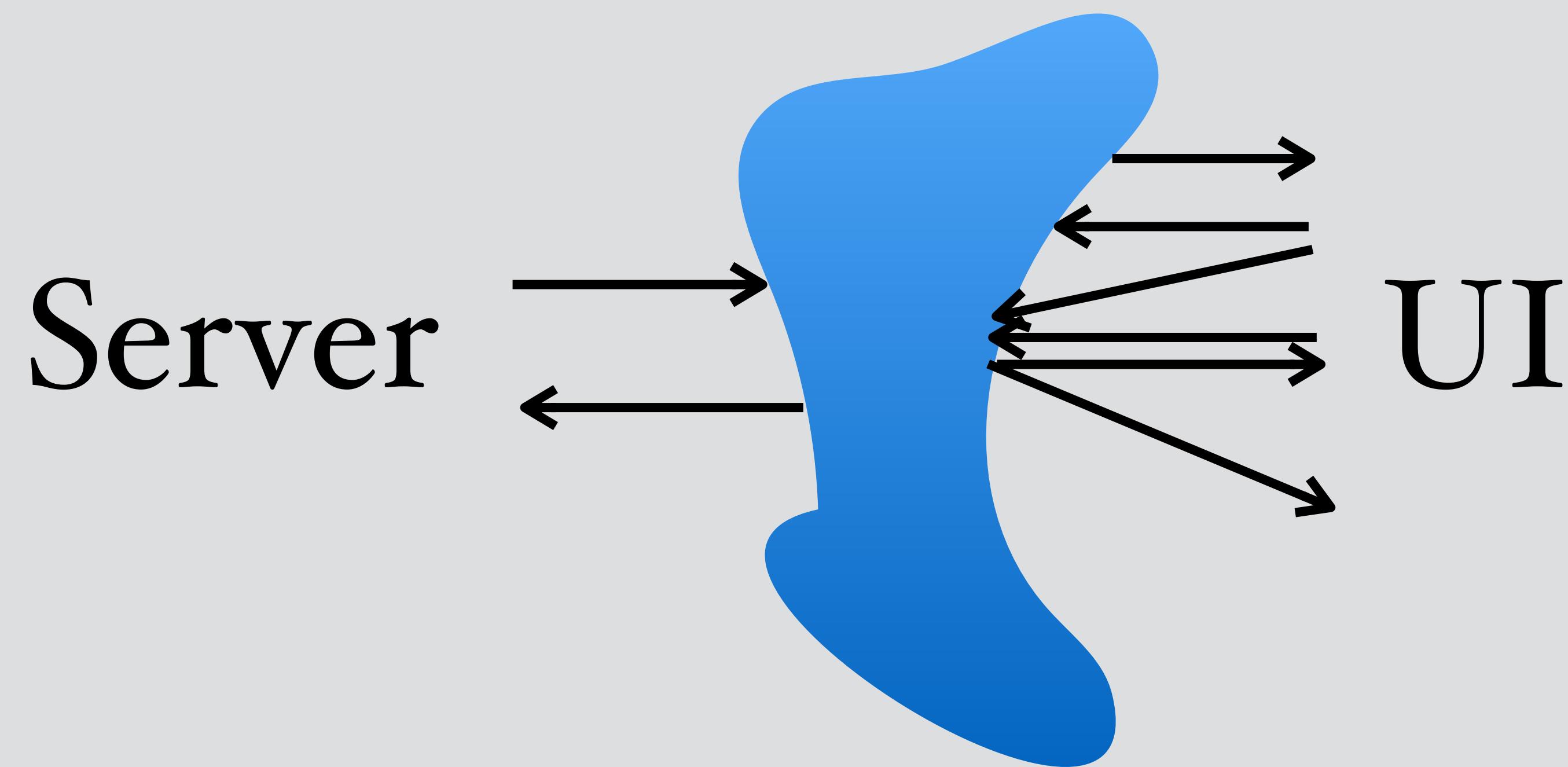
@jessitron

**stripe**

Data  
In



Data  
Out



Everything  
that →  
matters



My  
→ Dream  
Appearance

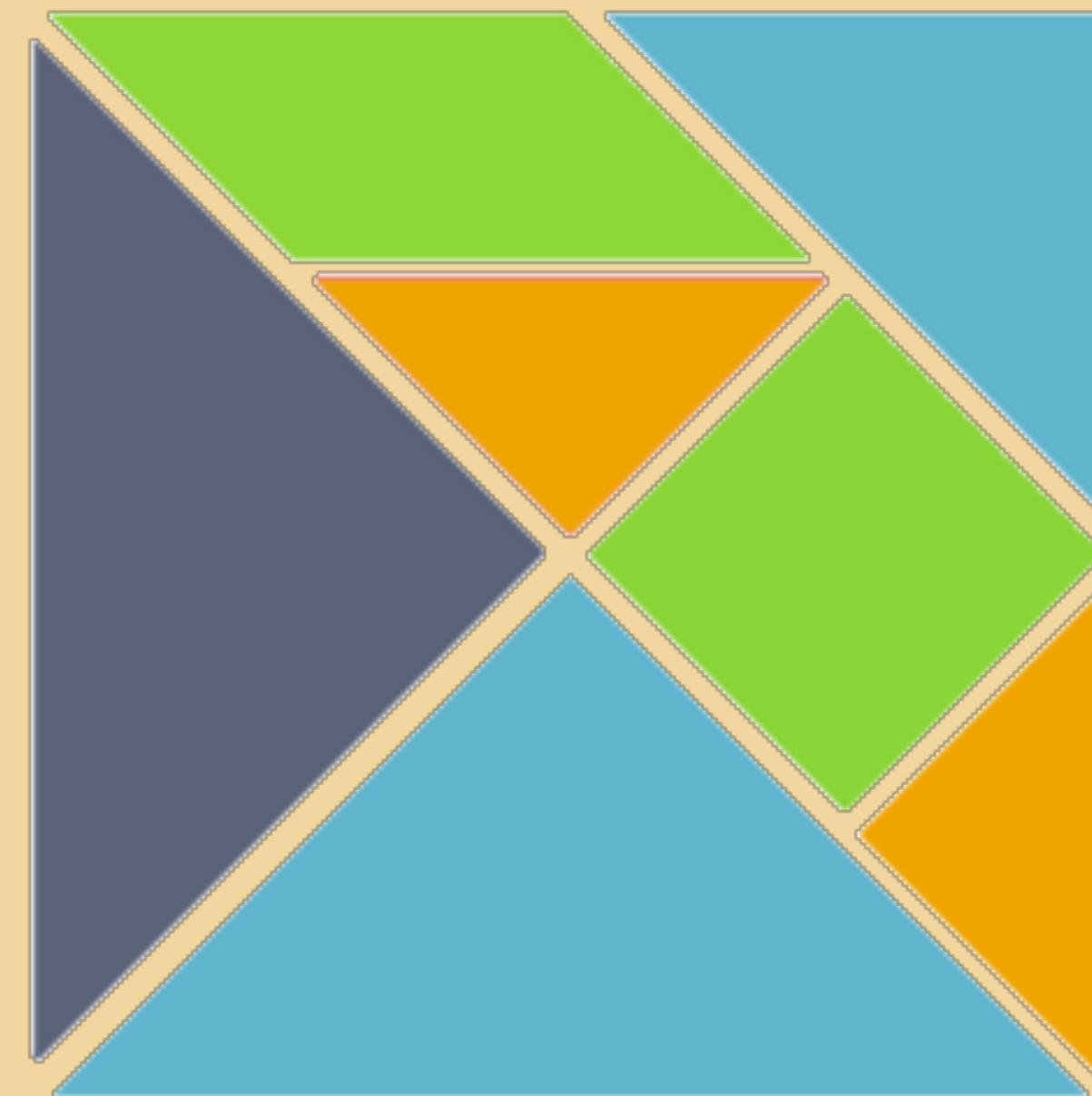


JavaScript + React + Redux

ClojureScript + Om

Scala.js + React

language  
architecture  
system



undefined is not a function



“I tried over and over again to  
turn my self doubt into a pure  
functional program, and  
eventually, it clicked.”

@mrb\_bk

```
substring : Int -> String -> String
```

```
substring qty string = ...
```

```
locationCode : String -> String
```

```
locationCode = substring 3
```

```
serverLocation : String
```

```
serverLocation = substring 3 "STL-48"
```

```
locations : List String
```

```
locations = ["STL", "ORD"]
```

```
serverLocation : String  
serverLocation = substring 3 "STL-48"  
  
serverLocation = "STL-48"  
|> substring 3
```

```
type alias LocationCode = String
```



```
locationCode : String -> String
```

```
locationCode = substring 3
```

```
serverLocation : String
```

```
serverLocation = "STL-48" |> substring 3
```

```
locations : List String
```

```
locations = ["STL", "ORD"]
```

```
type alias LocationCode = String
```



```
locationCode : String -> LocationCode  
locationCode = substring 3
```

```
serverLocation : LocationCode  
serverLocation = "STL-48" |> substring 3
```

```
locations : List LocationCode  
locations = ["STL", "ORD"]
```

```
type alias Machine =  
{ locationCode : LocationCode  
, number : Int  
}
```

```
myServer : Machine  
myServer =  
{ locationCode = "STL"  
, number = 48  
}
```



records

```
type alias Machine =  
{ locationCode : LocationCode  
, number : Int  
}  
  
parse : String -> Machine  
parse s =  
let  
    location = locationCode s  
    num = ...  
in  
{ locationCode = location  
, number = num  
}
```

expressions

# new type!

```
type MachineDatum =  
  Location LocationCode  
  | Number Int
```

```
machineData : List MachineDatum
```

```
machineData =  
  [ Location "STL"  
    , Number 48  
  ]
```

# constructors!

# pattern matching!

```
describe : MachineDatum -> String
describe datum =
  case datum of
    Location code -> "in " ++ code
    Number n -> "number " ++ (toString n)
```

```
type MachineDatum =
  Location LocationCode
  | Number Int
```

# Hello World



**noredink**

Evan Czaplicki

Hello Mouse

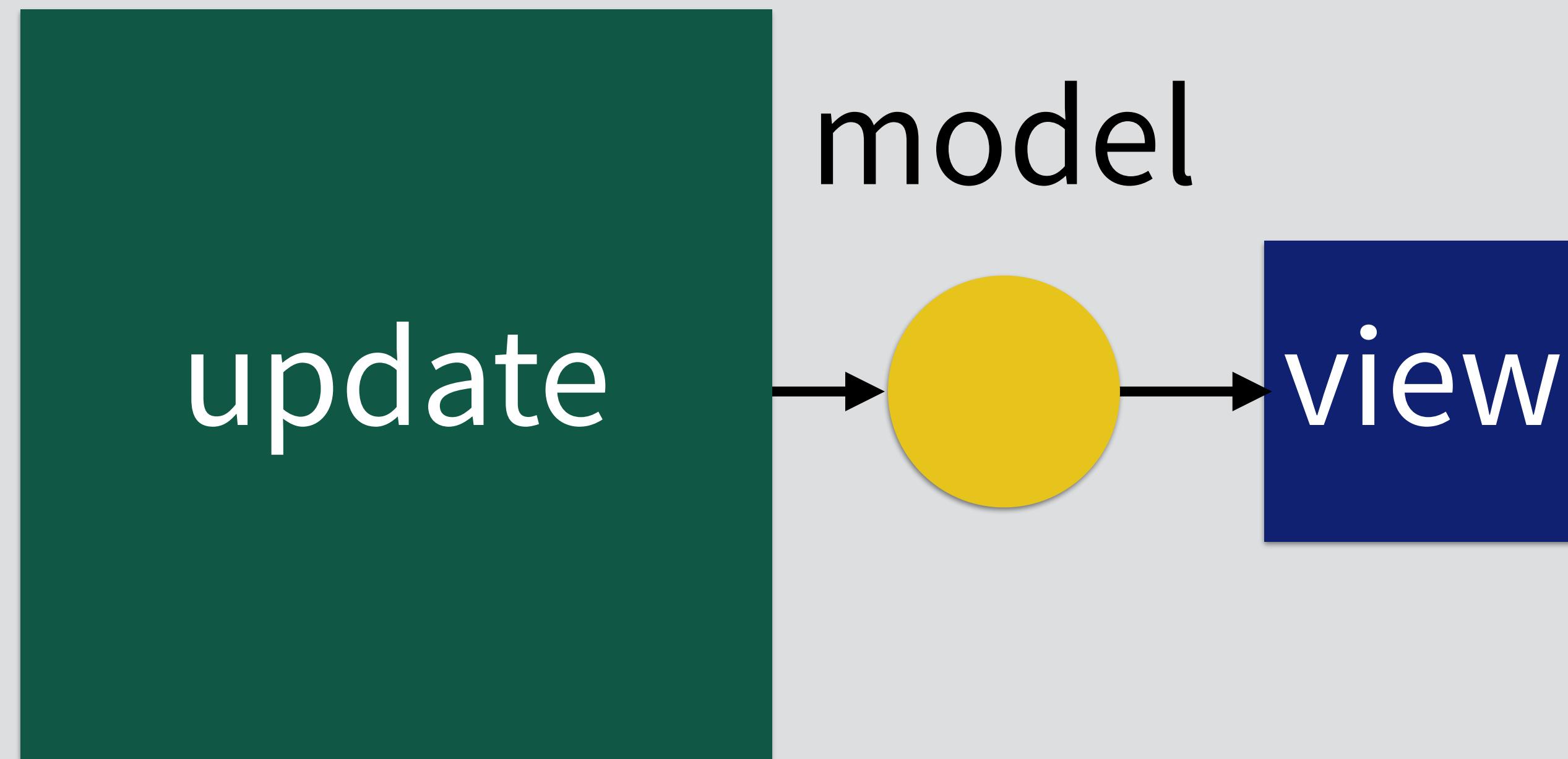
Hello Deeter

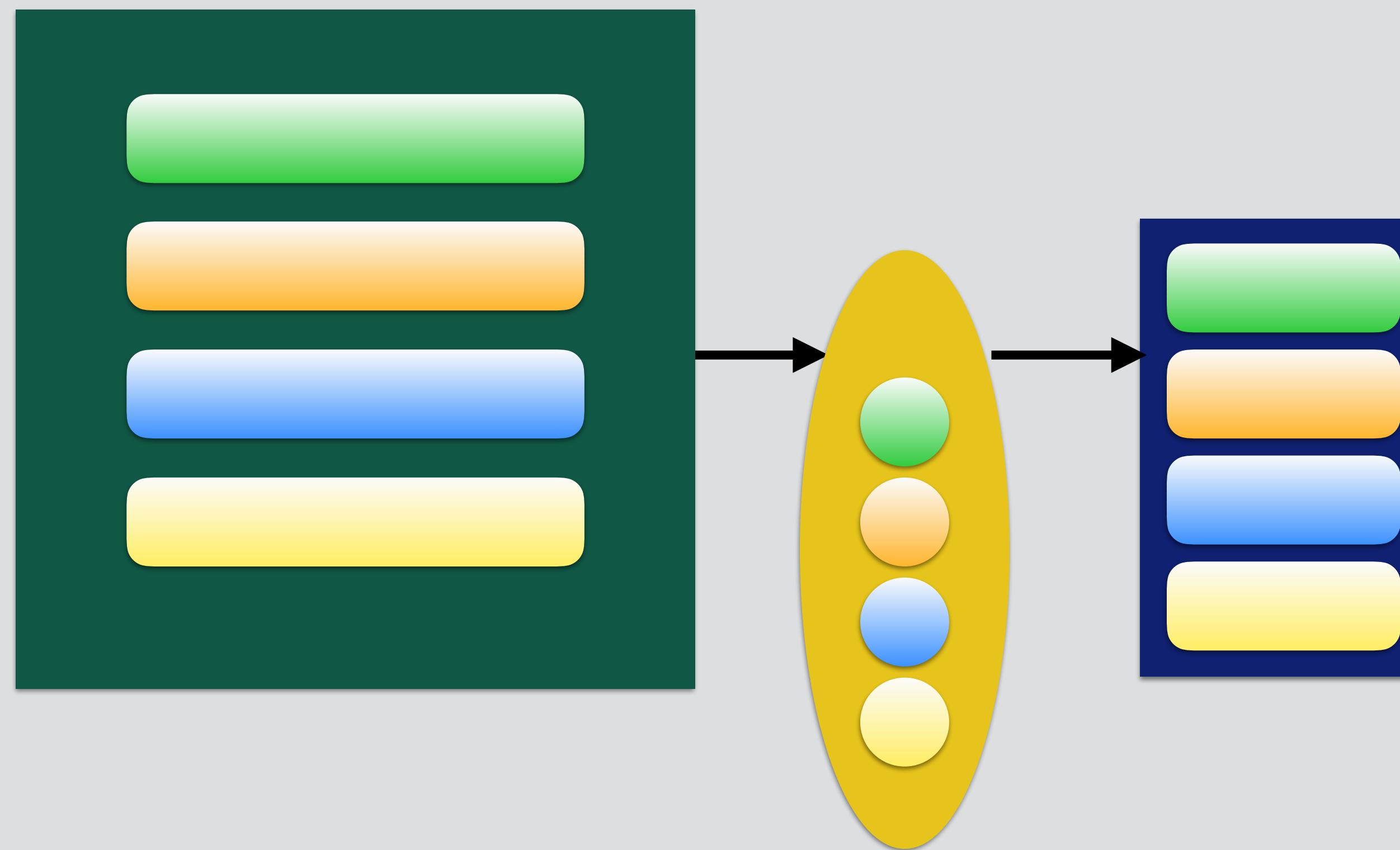
**Deeter Clicks**

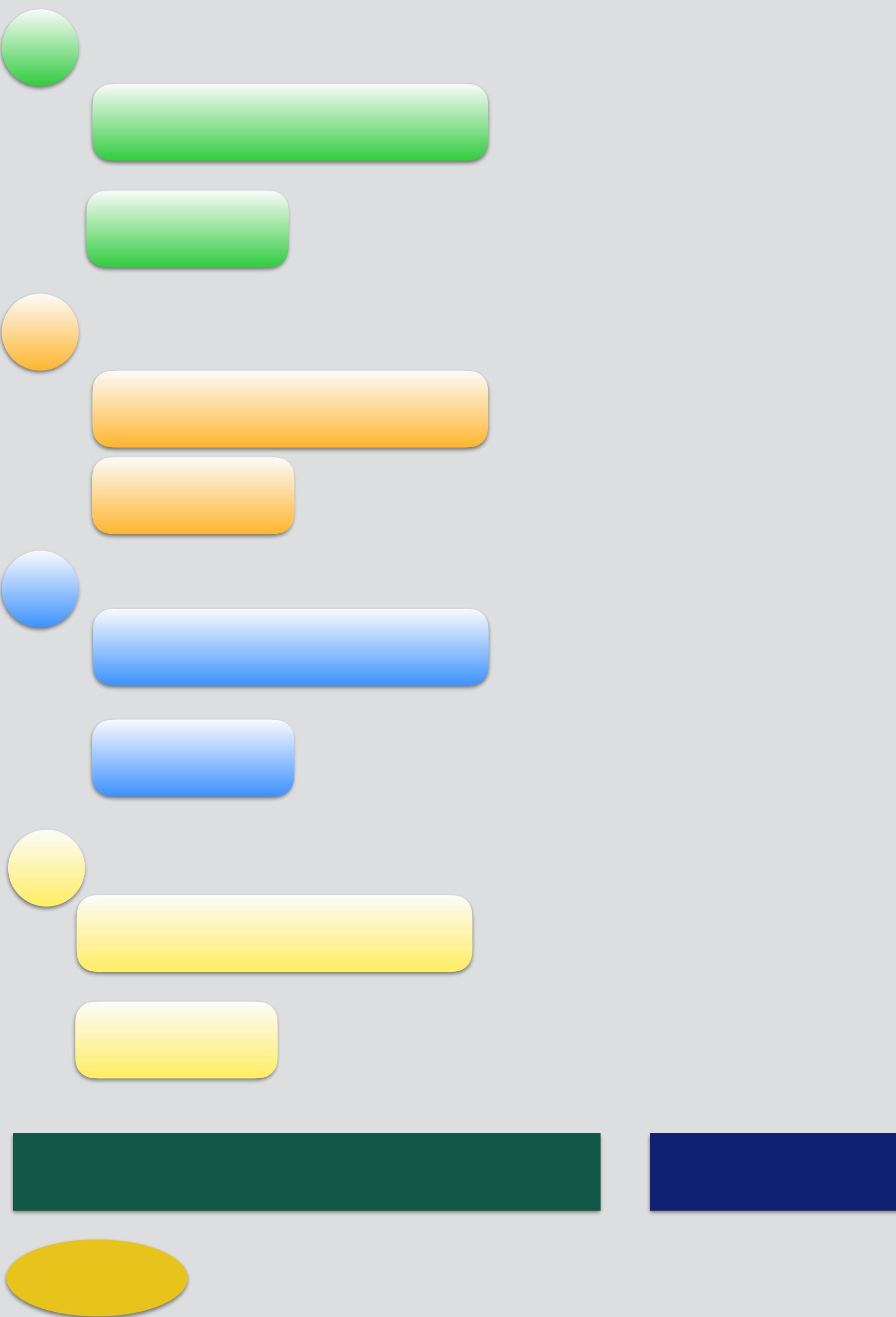
update

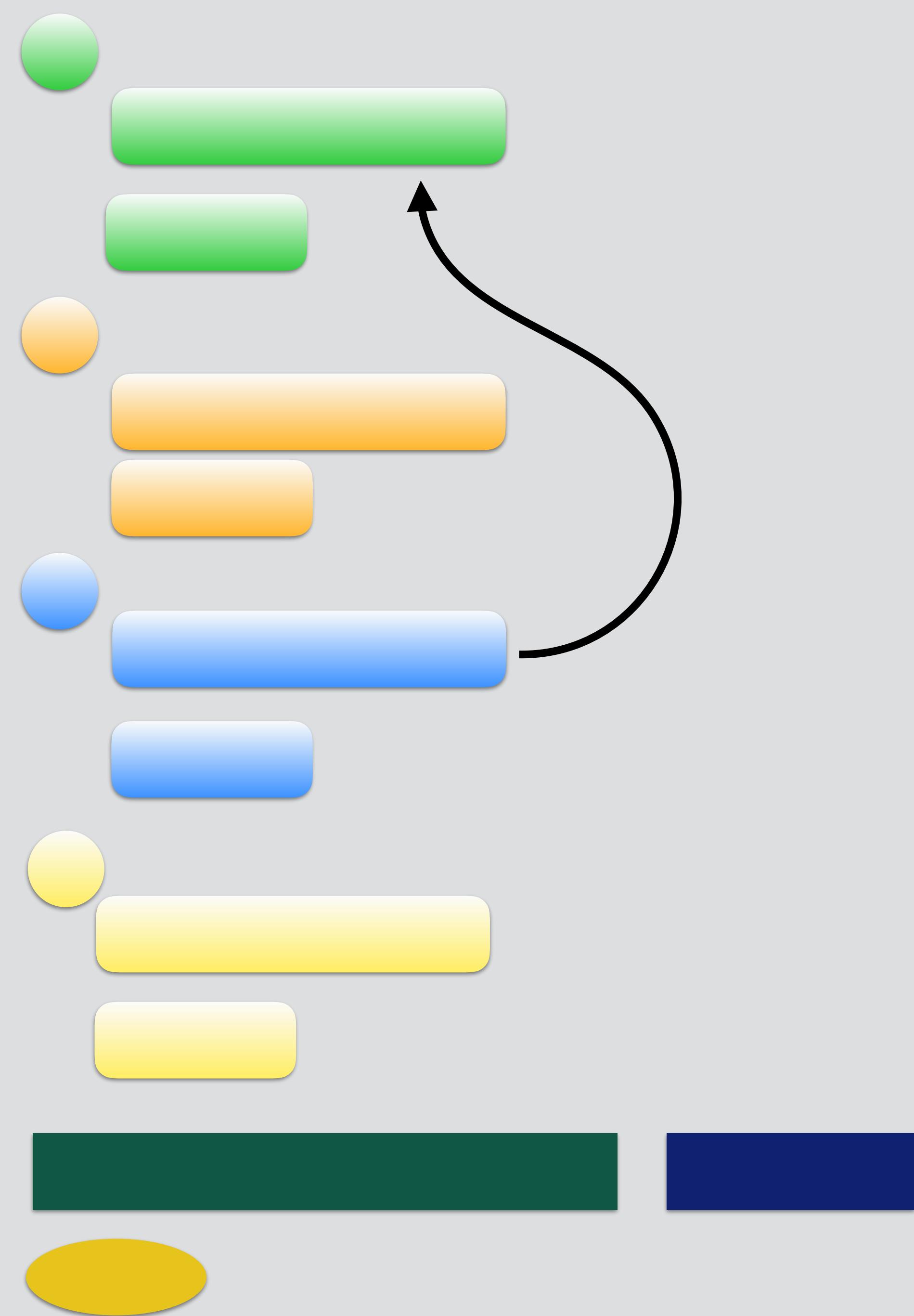
model

view









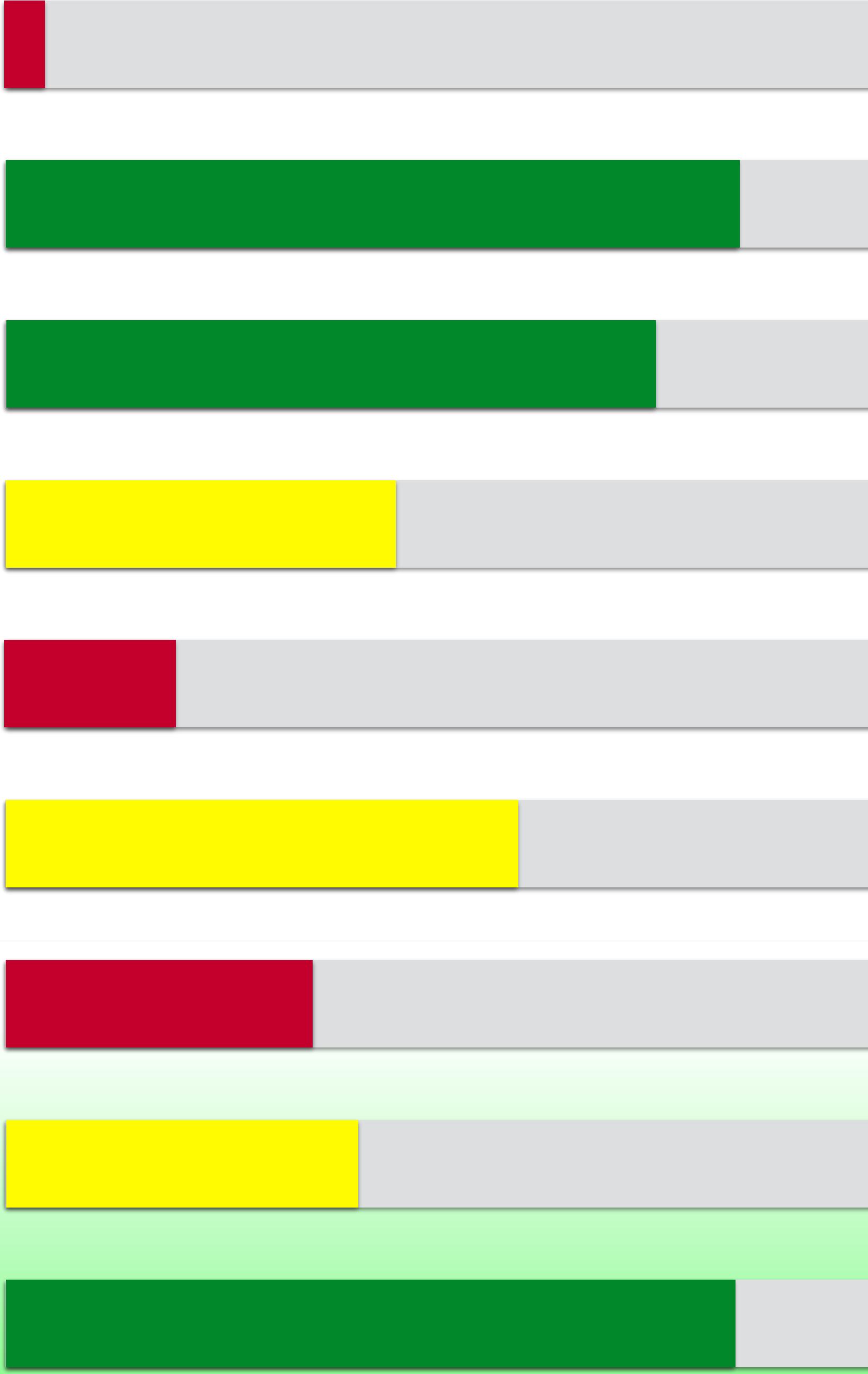


small pieces  
encapsulated



A landscape photograph showing a dense forest of tall evergreen trees under a clear blue sky. The trees are a vibrant green color, and the sky is a bright, pale blue.

natural  
extensible



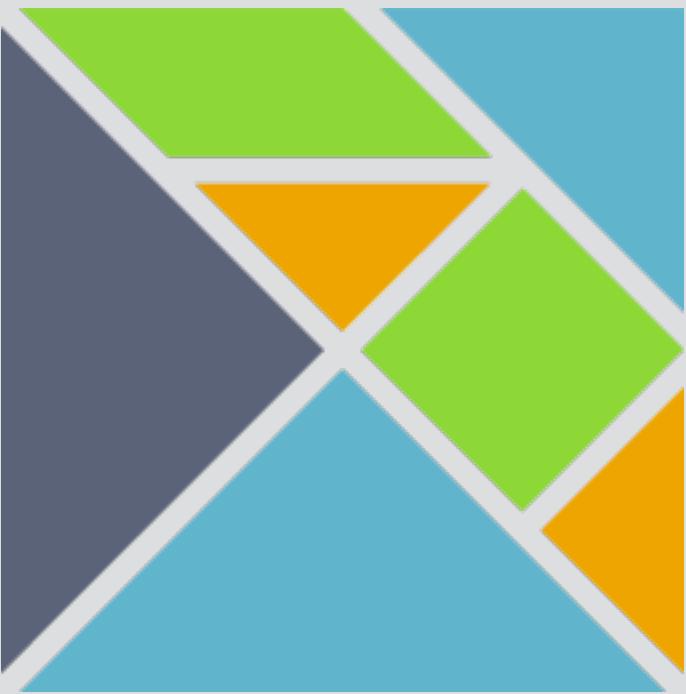
server  
compiler  
package manager  
test tools  
build tools  
editors  
libraries  
learning  
community





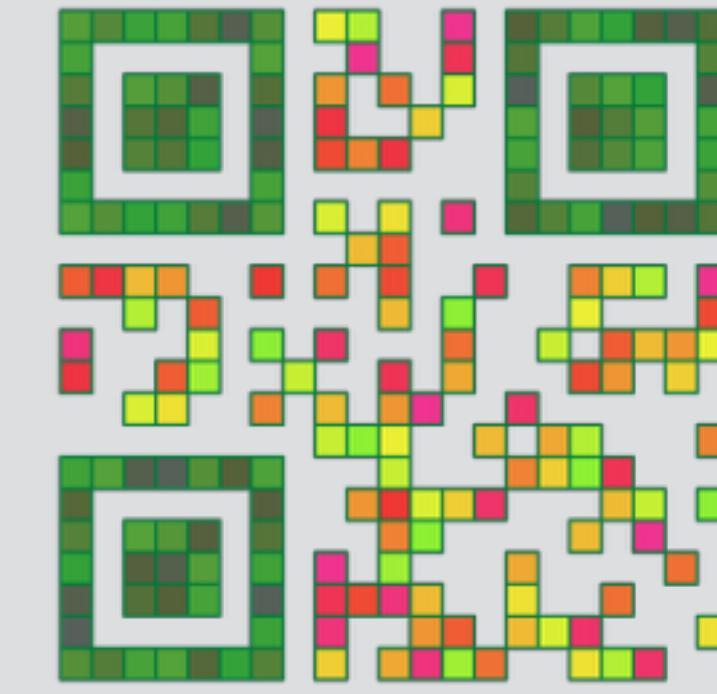
<https://derpiboo.ru/720277>

elm-lang.org



@jessitron

stripe



<http://guide.elm-lang.org/>

[github.com/jessitron/elm-hello-world](https://github.com/jessitron/elm-hello-world)

[github.com/satellite-of-love/landscape](https://github.com/satellite-of-love/landscape)