Architecting RIA

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What is

by **Kushal Das**

Is it…

Rural Inoculation Association?

Rare Isotope Accelerator?

Royal Institute of Acting

Rampantly Inept Alien?

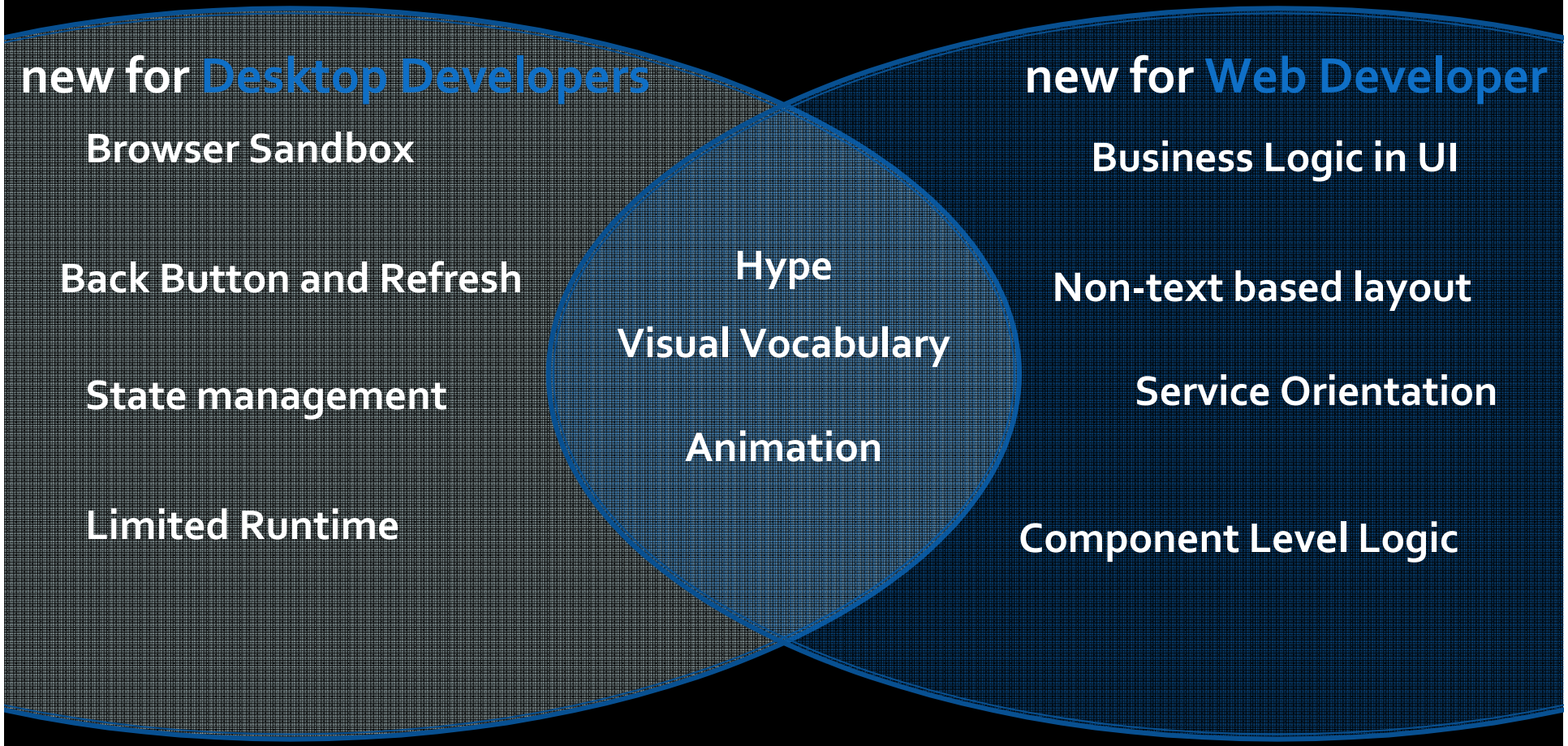
Royally Idiotic Annoyance?

Really Inane Acronym?

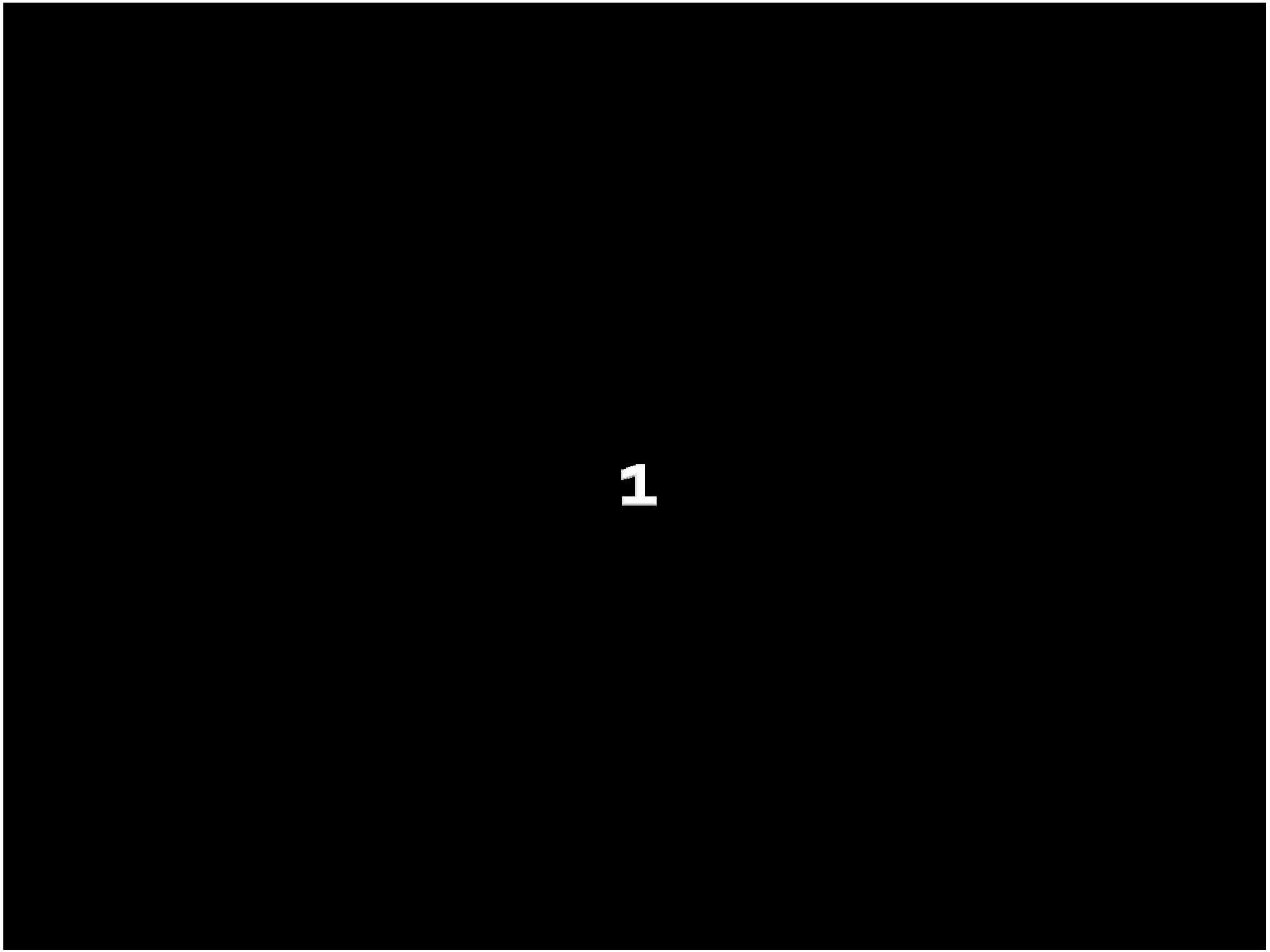
Rich Internet Application?

Where does RIA Fit?

What's different with RIA?



Top 10 Best Practices

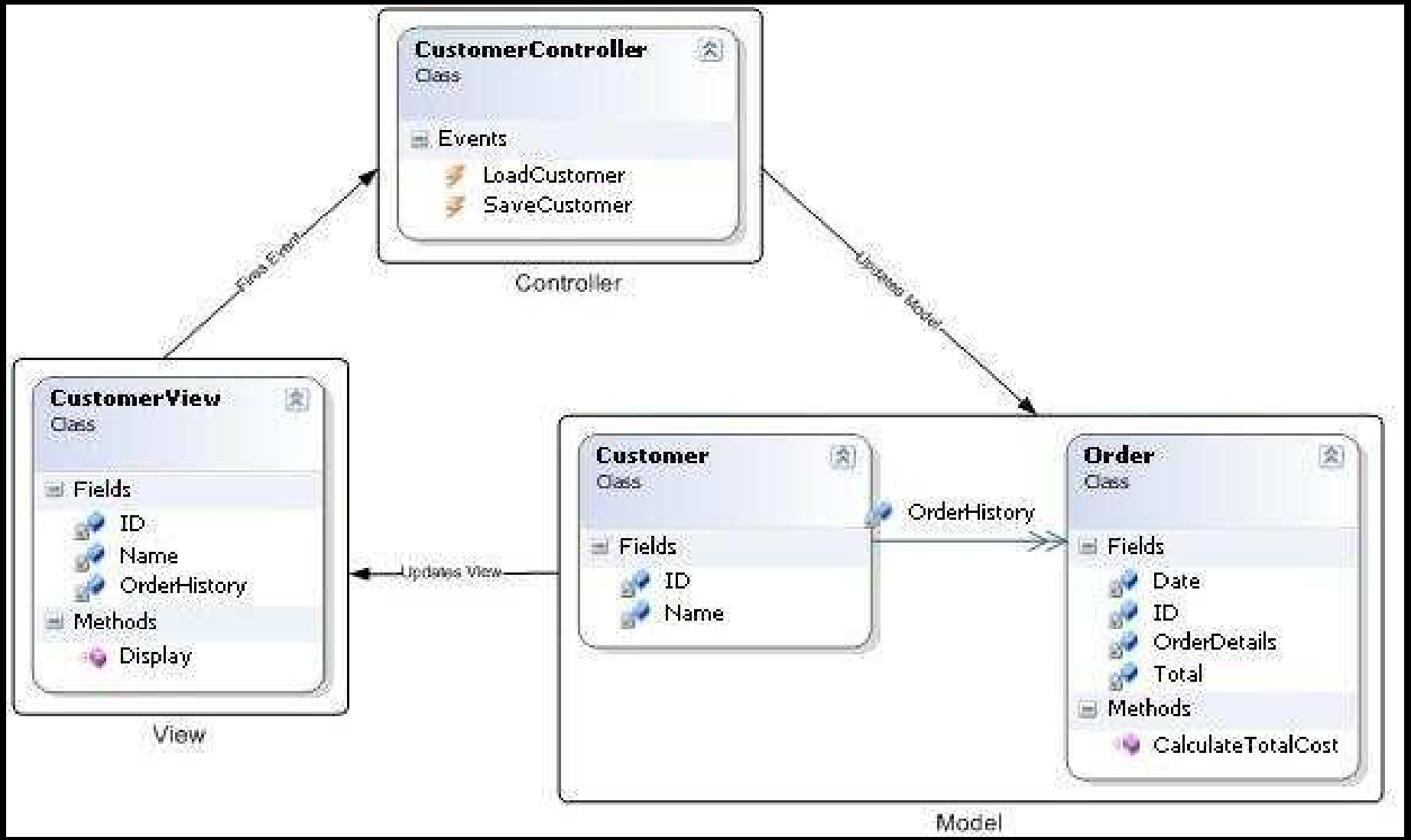

1

Form follows function

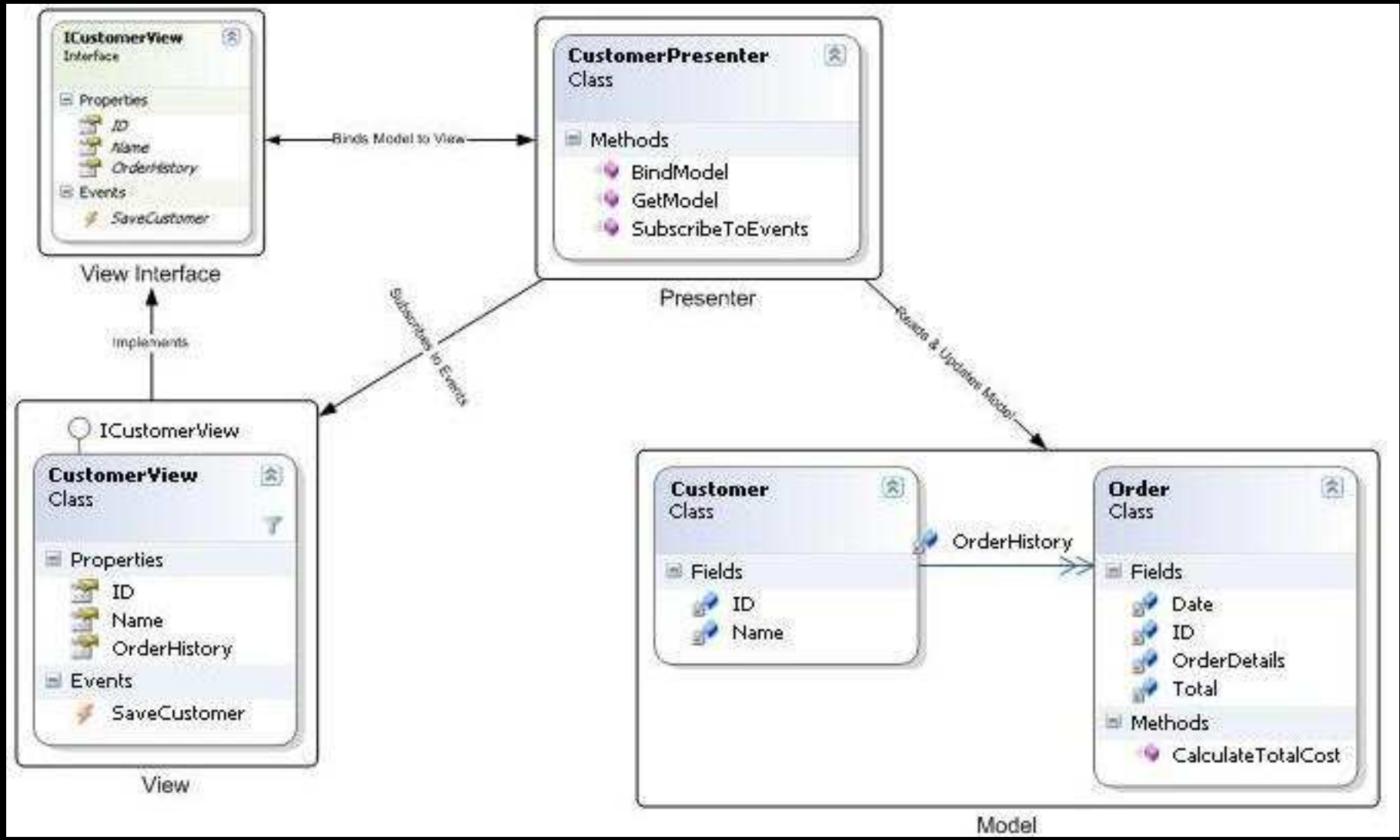
Taliesin West: Drafting Studio

Taliesin West: Drafting Studio

MVC


CustomerController
Class
Events
LoadCustomer
SaveCustomer
Controller
Fires Event
Updates Model
CustomerView
Class
Fields
ID
Name
OrderHistory
Methods
Display
View
Updates View
Customer
Class
Fields
ID
Name
OrderHistory
Order
Class
Fields
Date
ID
OrderDetails
Total
Methods
CalculateTotalCost
Model

MVP

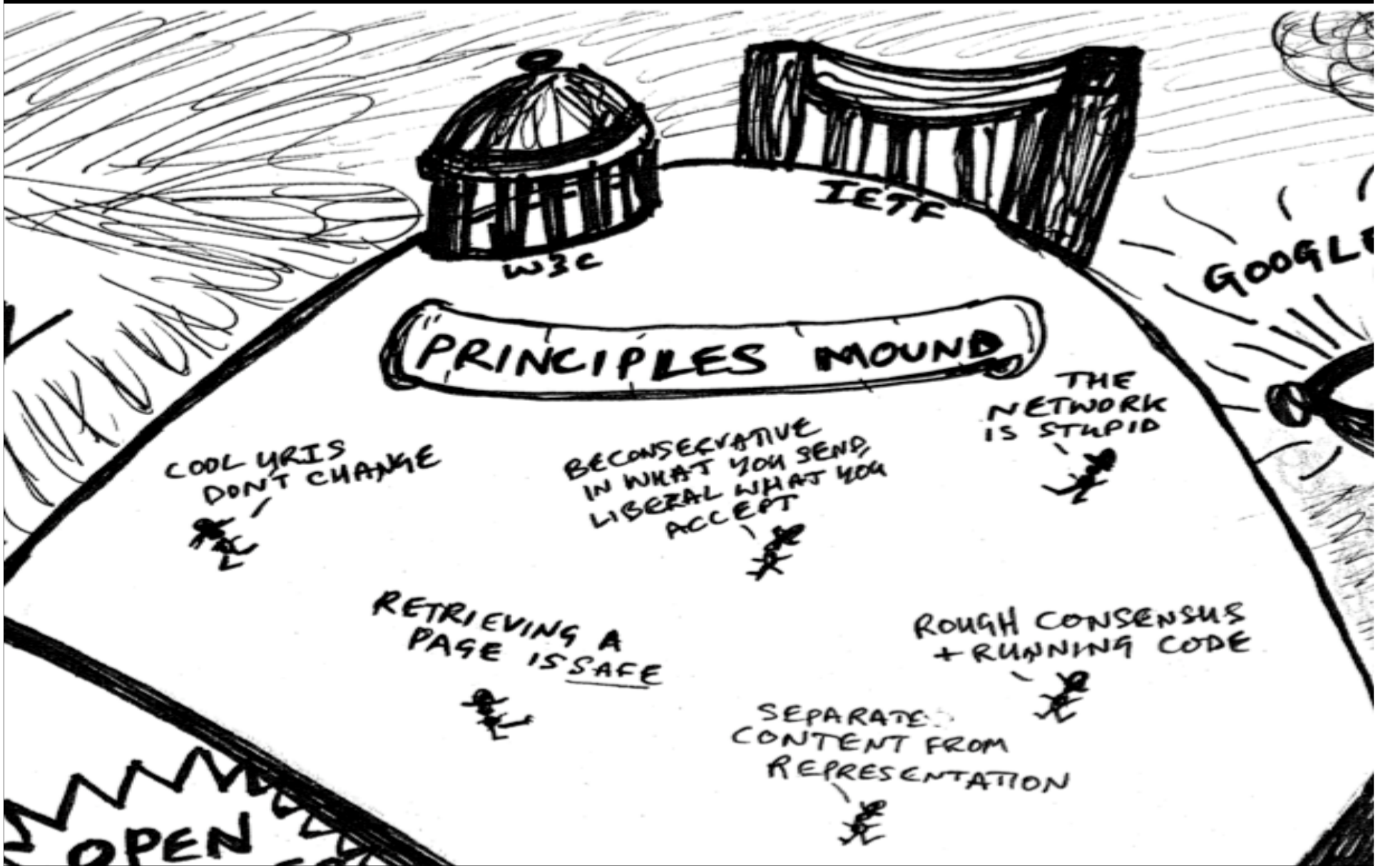

ICustomerView
Interface
Properties
ID
Name
OrderHistory
Events
SaveCustomer
View Interface
Binds Model to View
CustomerPresenter
Class
Methods
BindModel
GetModel
SubscribeToEvents
Presenter
Implements
Subscribes to Events
Reads & Updates Model
ICustomerView
CustomerView
Class
Properties
ID
Name
OrderHistory
Events
SaveCustomer
View
Customer
Class
Fields
ID
Name
OrderHistory
Order
Class
Fields
Date
ID
OrderDetails
Total
Methods
CalculateTotalCost
Model

Head to head…

- MVP Pattern
  - View is more loosely coupled to the model
  - Easier to unit test
  - Usually view to presenter map one to one
  - Complex views may have multi presenters
- MVC Pattern
  - Controller are based on behaviors and can be shared across views
  - Can be responsible for determining which view to display (Front Controller Pattern)

2

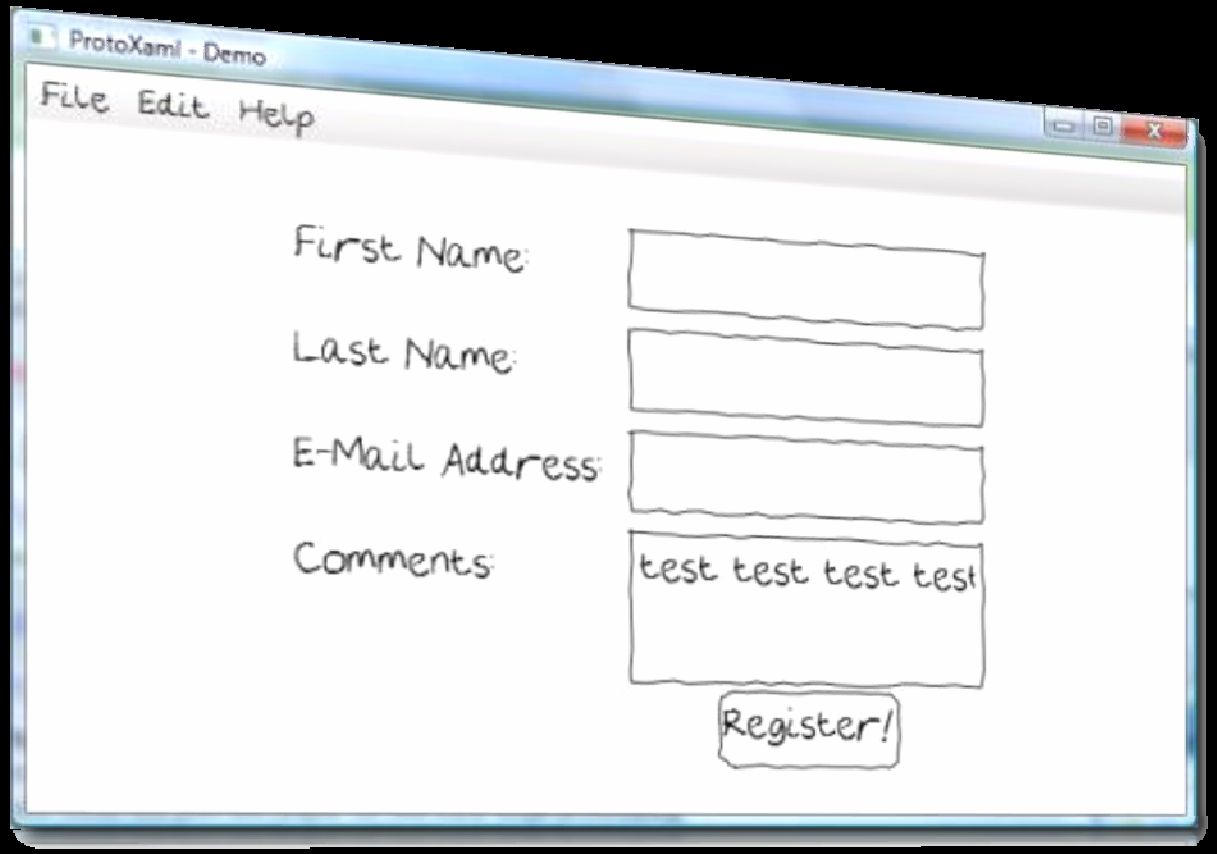
Create a set of design tenets



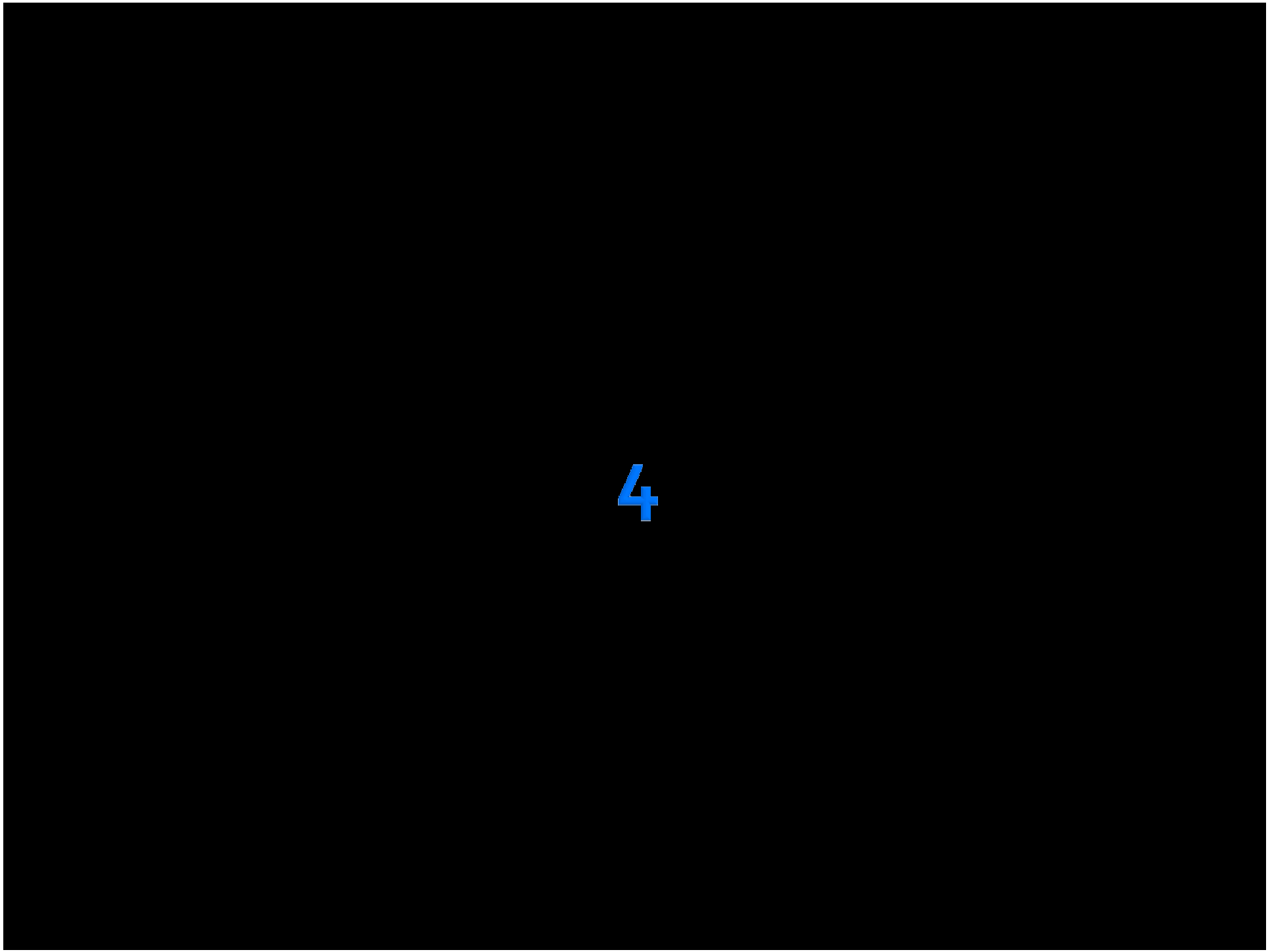
3

Use the appropriate level of fidelity

ProtoXAML


ProtoXaml - Demo
File Edit Help
First Name:
Last Name:
E-Mail Address:
Comments:
test test test test
Register!

Forest for the trees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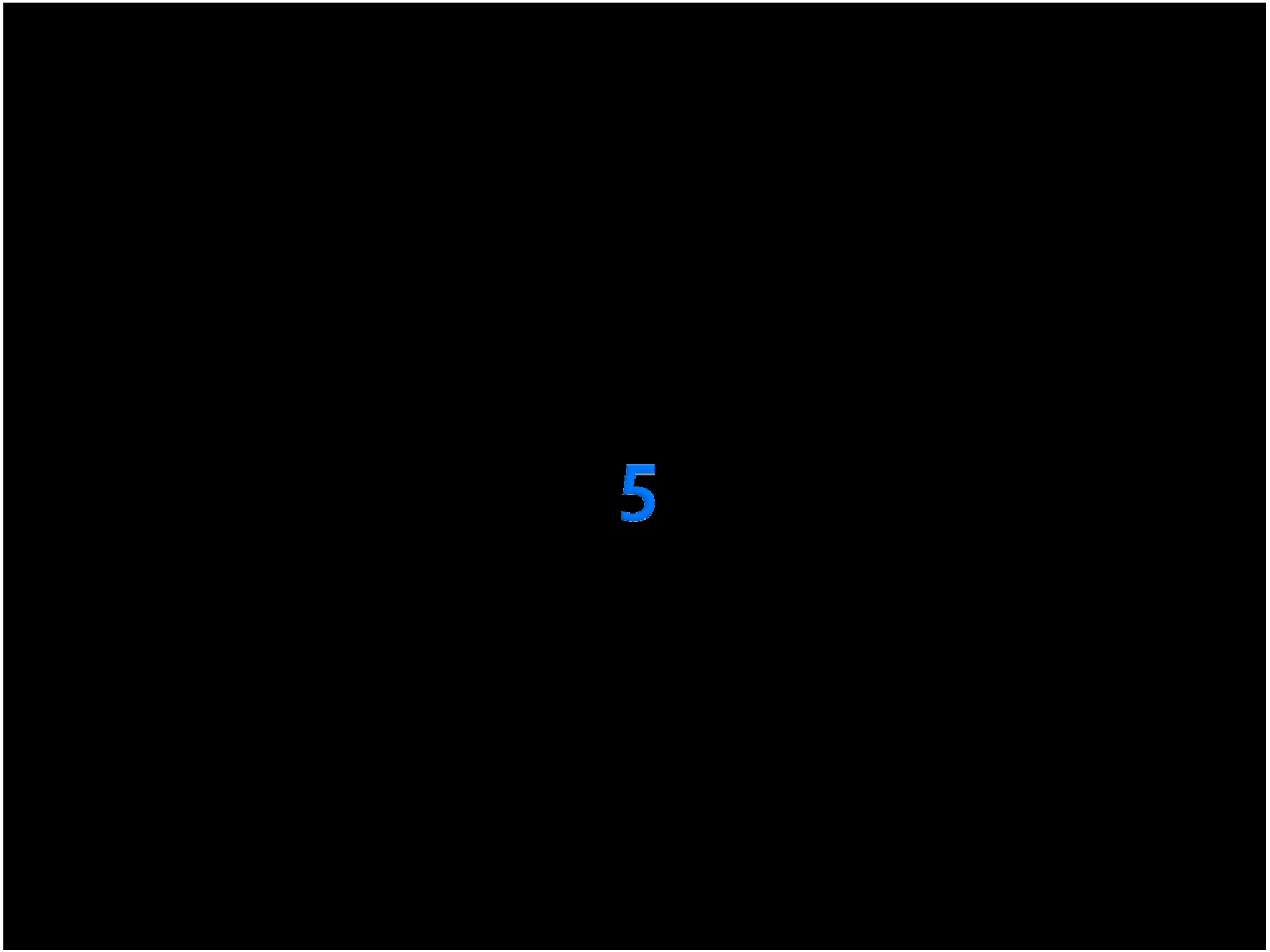
Build with the customer
and user's input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Build for ease of use …

..but don't forget the power users

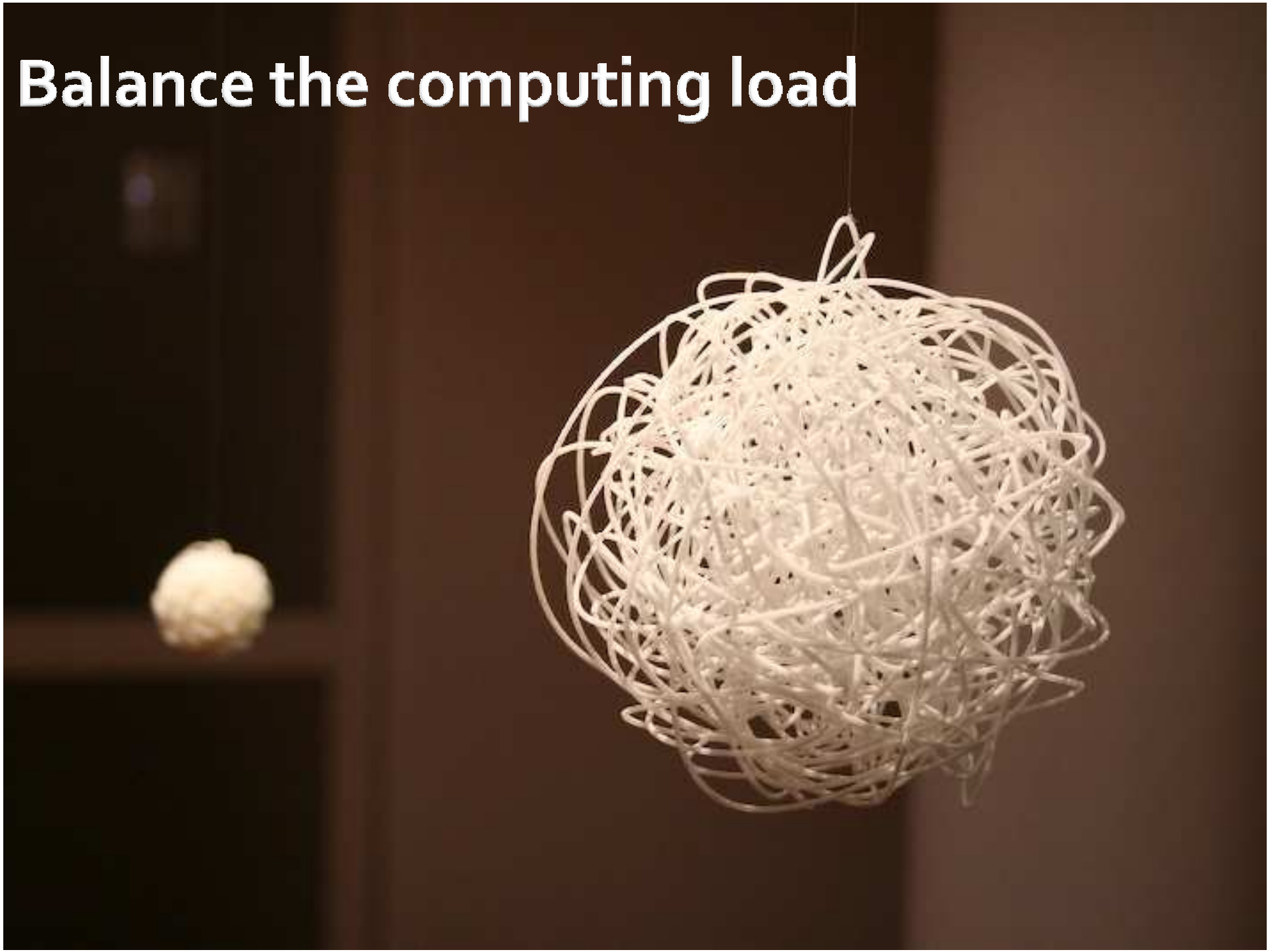
6

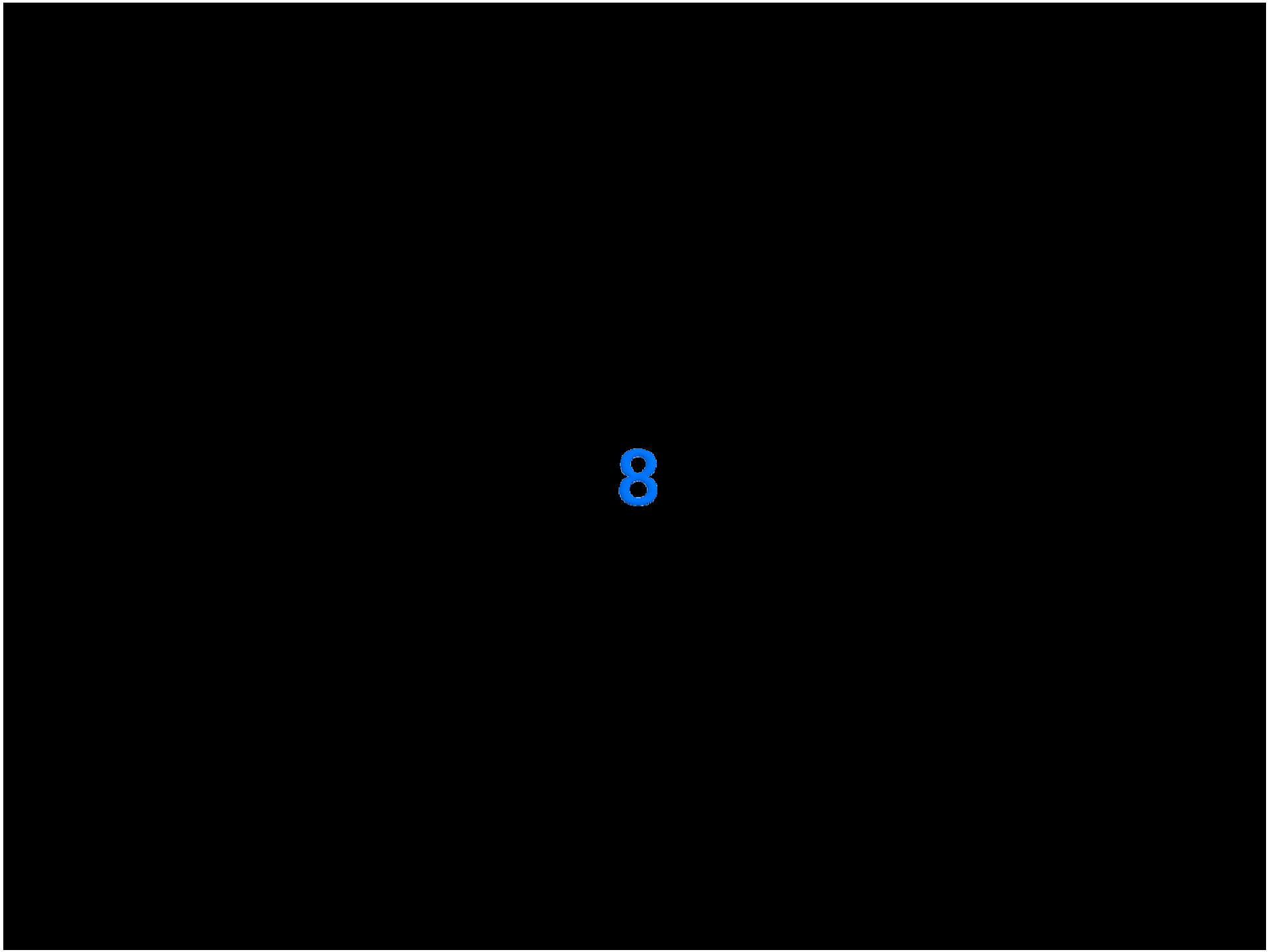
Plan for concurrency

Optimistic or Pessimistic?

7

Balance the computing load

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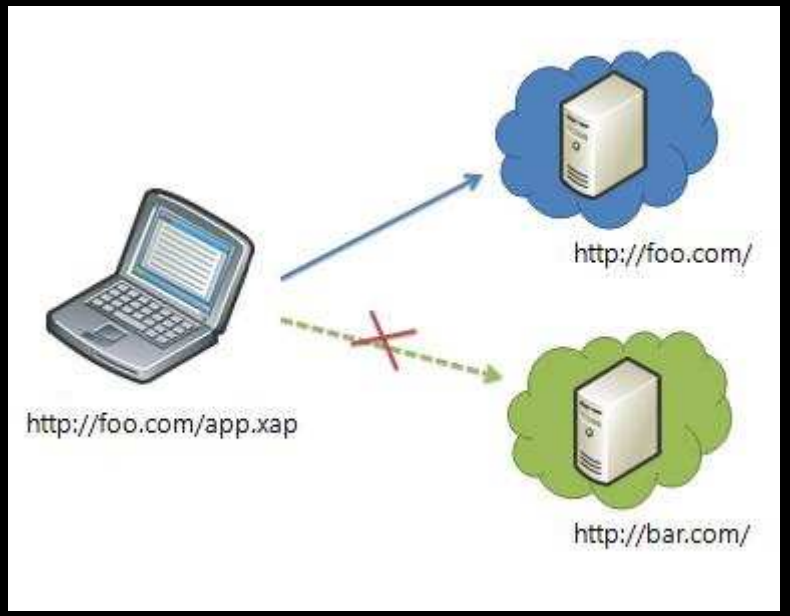
Balance
security
PROPERTY
U.S.
GOVT
with usability

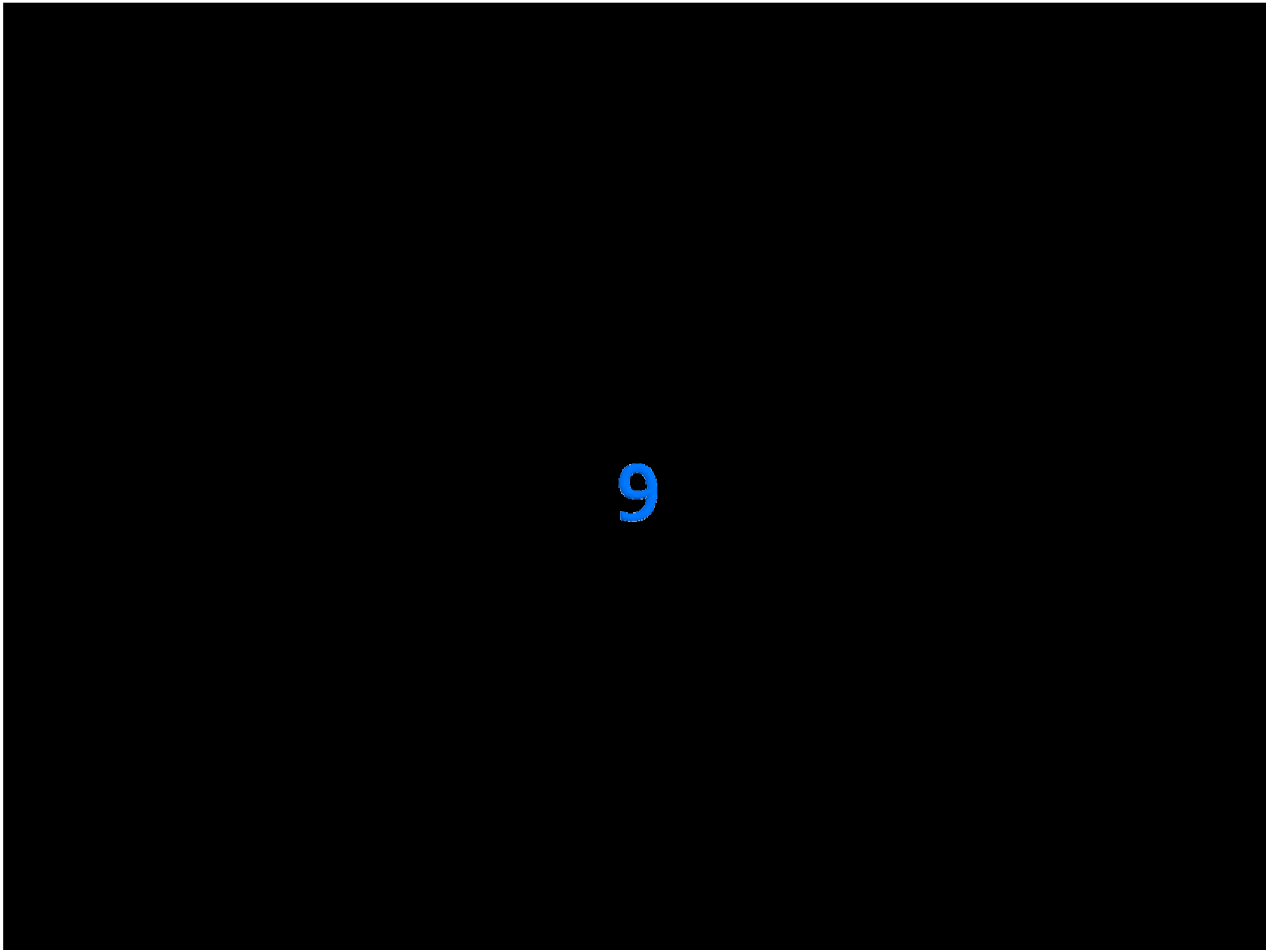
Understanding Cookies and Cross-Site

- Cookies are on a domain level
  - bar.com cannot access foo.com cookies…
  - Same domain - http://foo.com is different than http://bar.foo.com or http://www.foo.com
  - Same protocol - http://foo.com is different than https://foo.com
  - Same port - http://foo.com is different than http://foo.com:8080
- foo.com should feel secure storing user data in cookies
- Prevent cross-site forgery
  - Exploits a sites trust for a user



Dos and Don'ts

- "Private" services (for your own app)
  - DO use browser-based authentication
  - Cookies, HTTP Auth, etc.
  - DO NOT enable public access via cross-domain policy file
- "Public" services (for 3rd-party apps)
  - DO NOT use browser-based authentication
  - DO publish cross-domain policy files
  - DO use "cross-domain-safe" authentication
  - E.g. URL signatures
- DO separate public services in their own domain
  - E.g. api.flickr.com vs. www.flickr.com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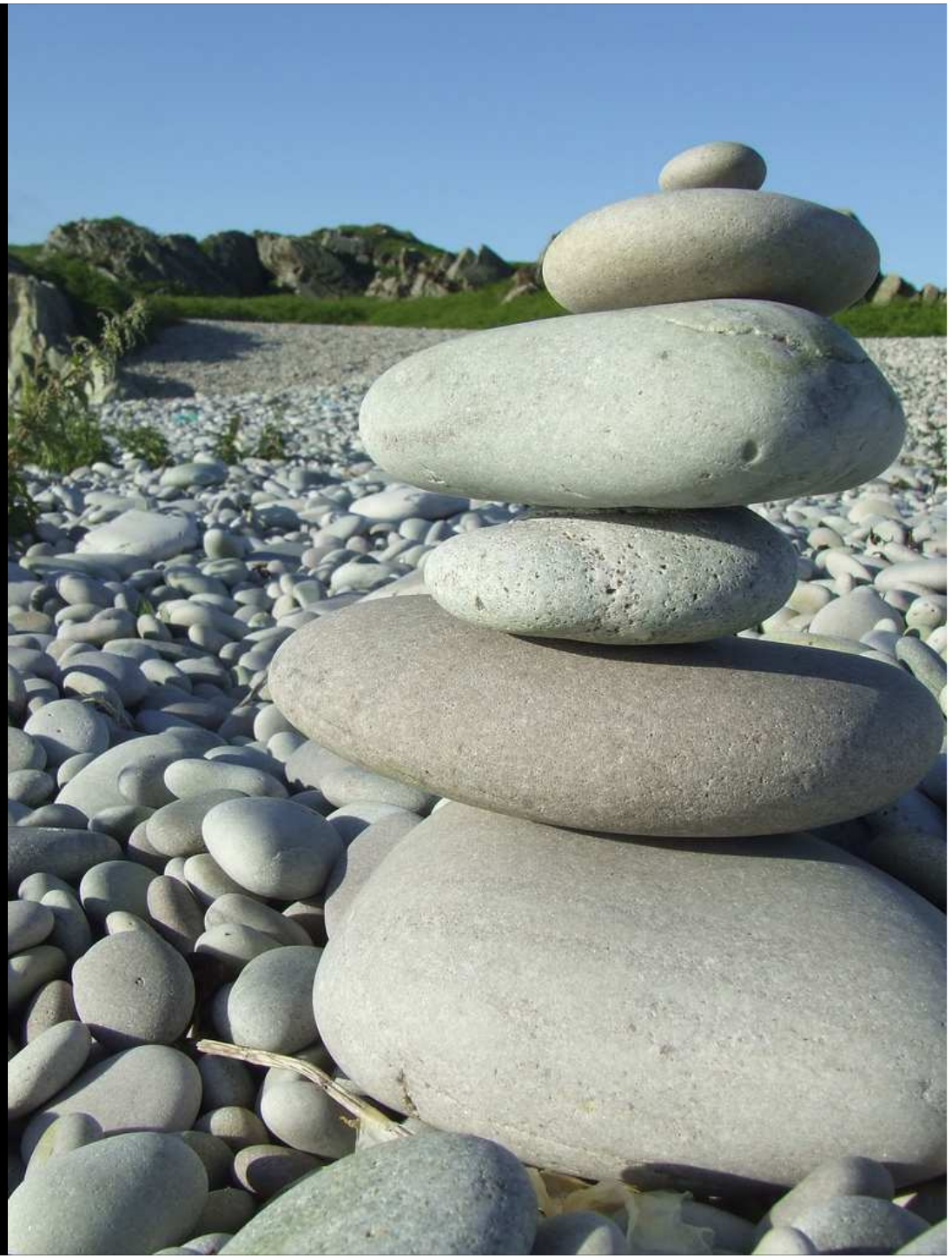
Build for supportability & maintenance



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MOBILE WEB DESIGN

A BOOK BY CAMERON MOLL

A web standards approach for delivering content beyond the desktop

Much has been written about mobile devices. Plenty has been written about developing websites for the so-called "standards era" of the web. However, little has been written about the two colliding. This resource aims to fill that void.

REASONS TO BUY

- Discover how to deliver web content to mobile devices (nearly 3 billion worldwide)
- 104 pages of practical advice, tips, & examples
- More than 40 full-color screens from actual devices
- Written by one of the world's leading web designers

If you're in a position to develop for, manage, or give advice regarding your organizations foray into a web strategy for mobile devices, then this book is for you. Purchase a PDF copy now.

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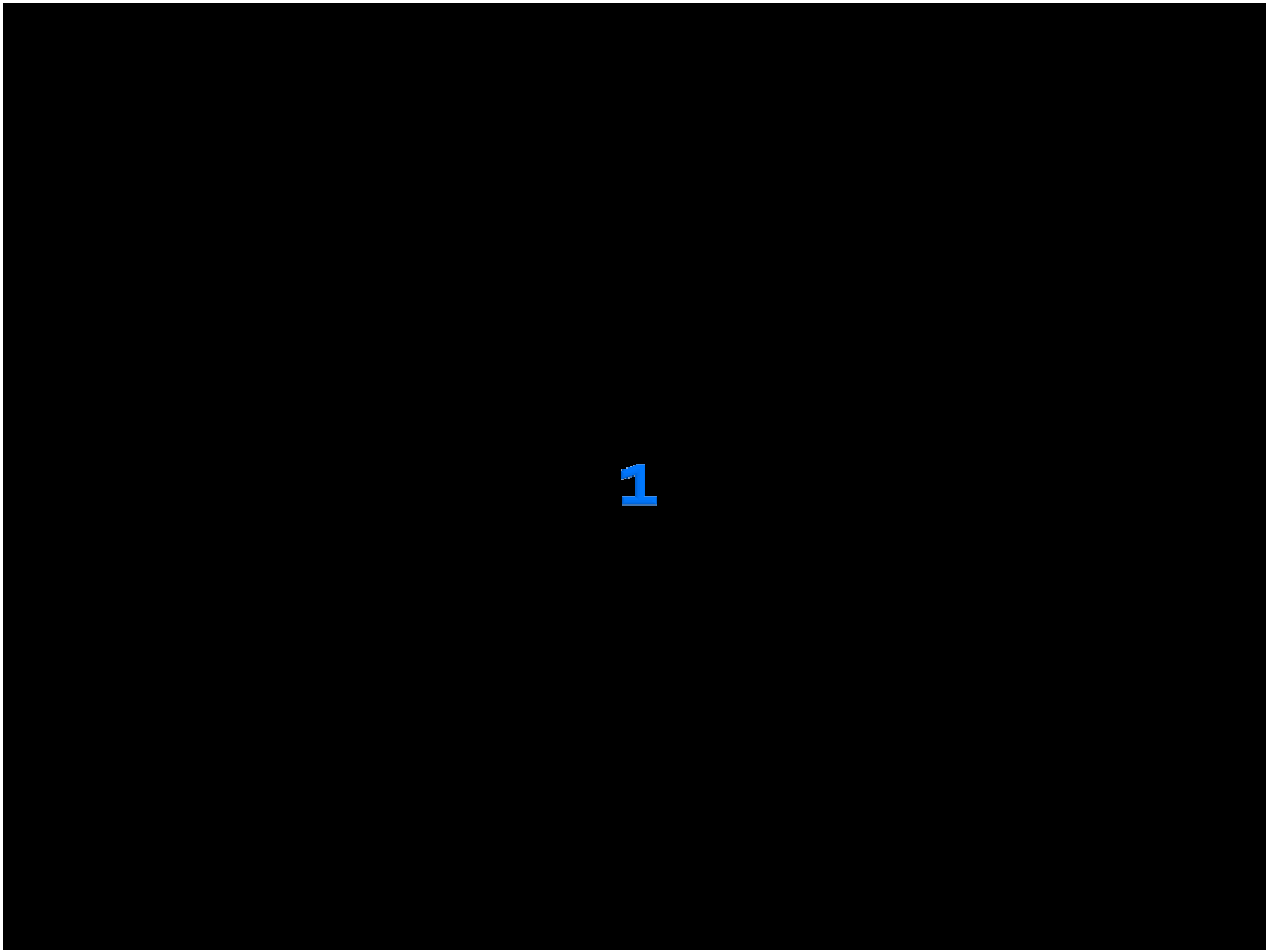
> *Very good and clearly written. Certainly another great reference to help people find their way in the world of the Mobile Web.*
>
> Jo Rabin - *dotMobi Director & W3C Co-Chair*

cameronmoll

Remember your user's context

What are some of your best practices?

Top 10 Worst Practices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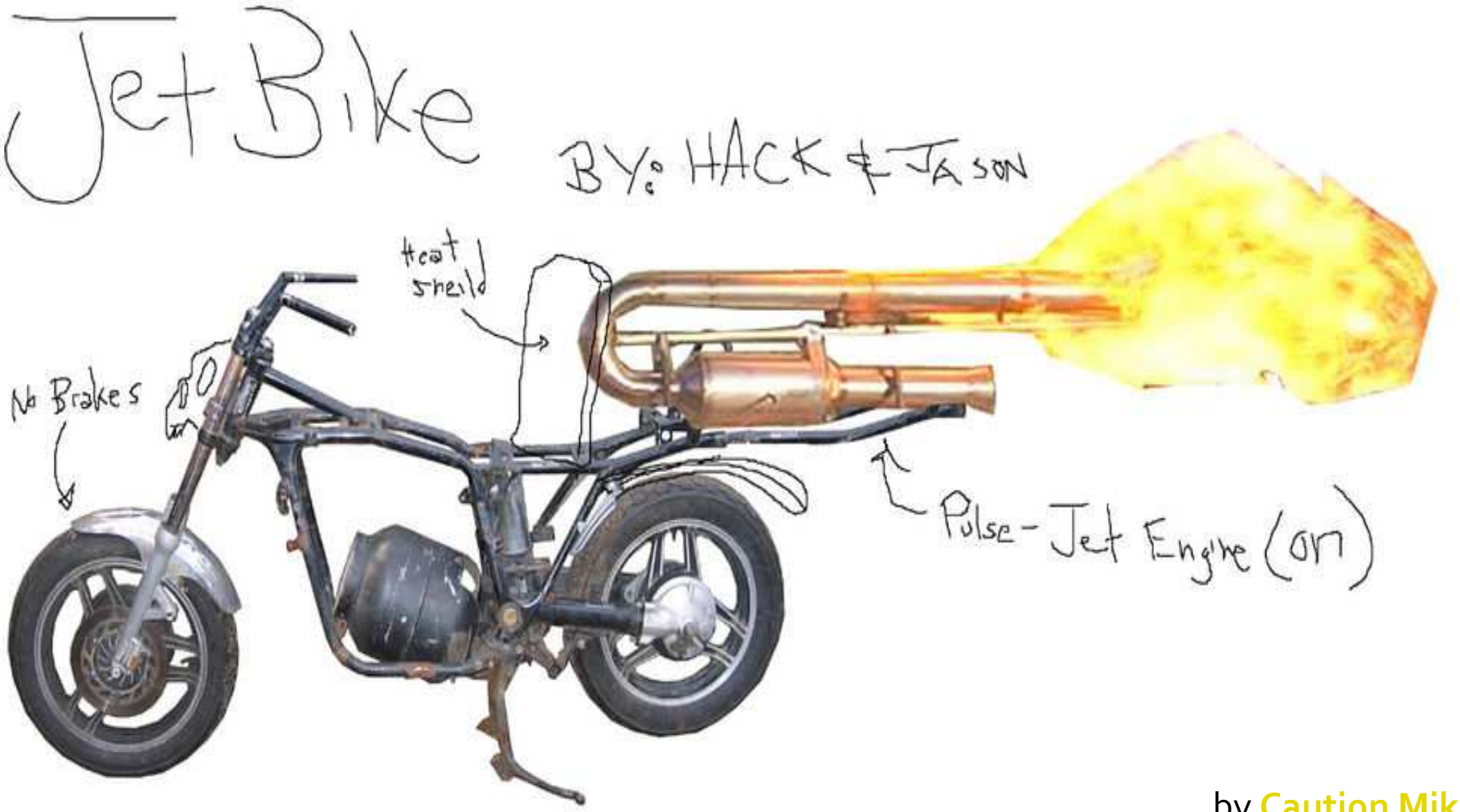
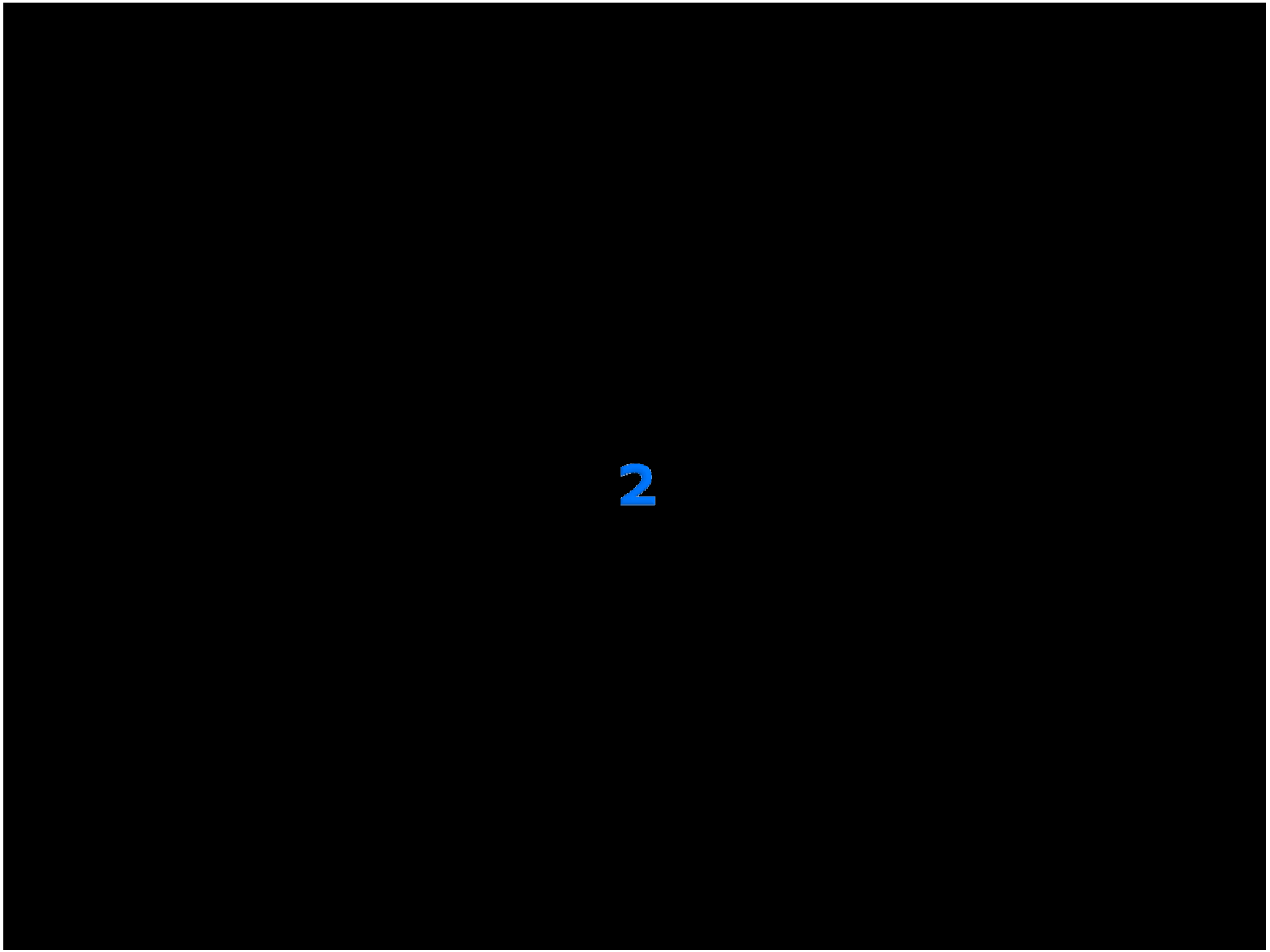


by Caution Mike

building web 1.0 sites with web 2.0 tech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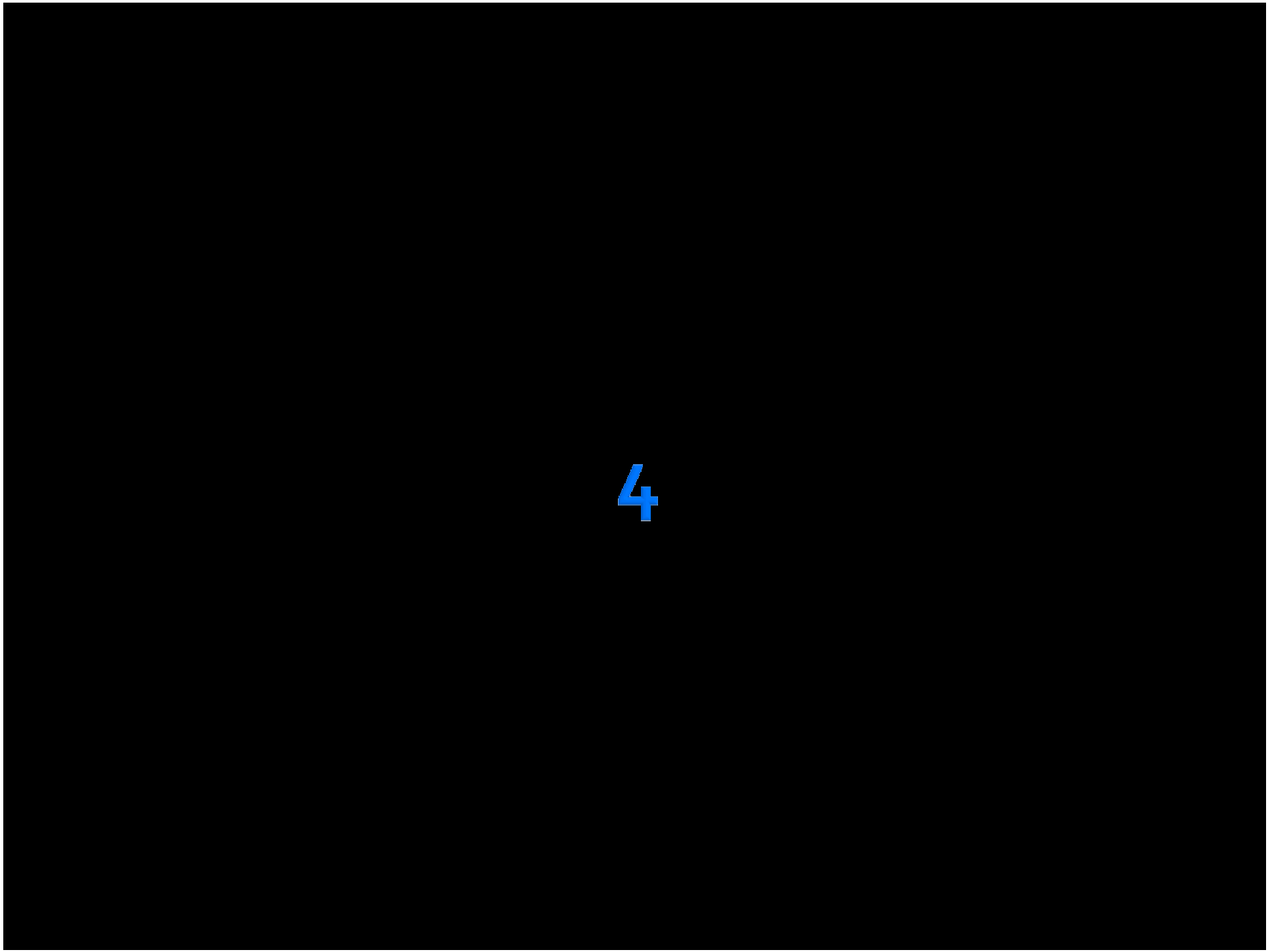
Forgetting page refresh

3

Breaking web standards

HTML CAN NOT

DO THAT!!!1!!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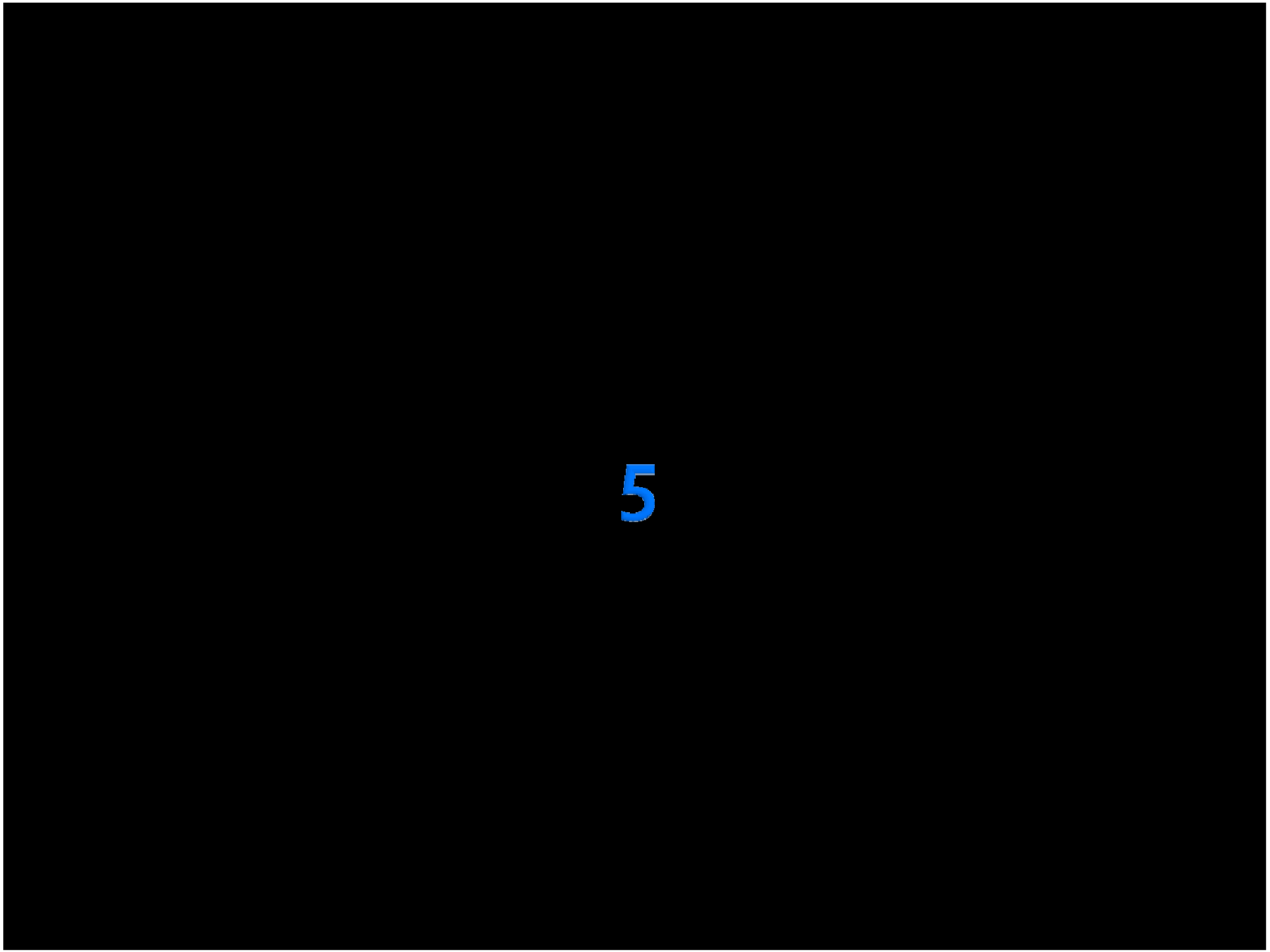
Ignore your bandwidth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Getting animation happy

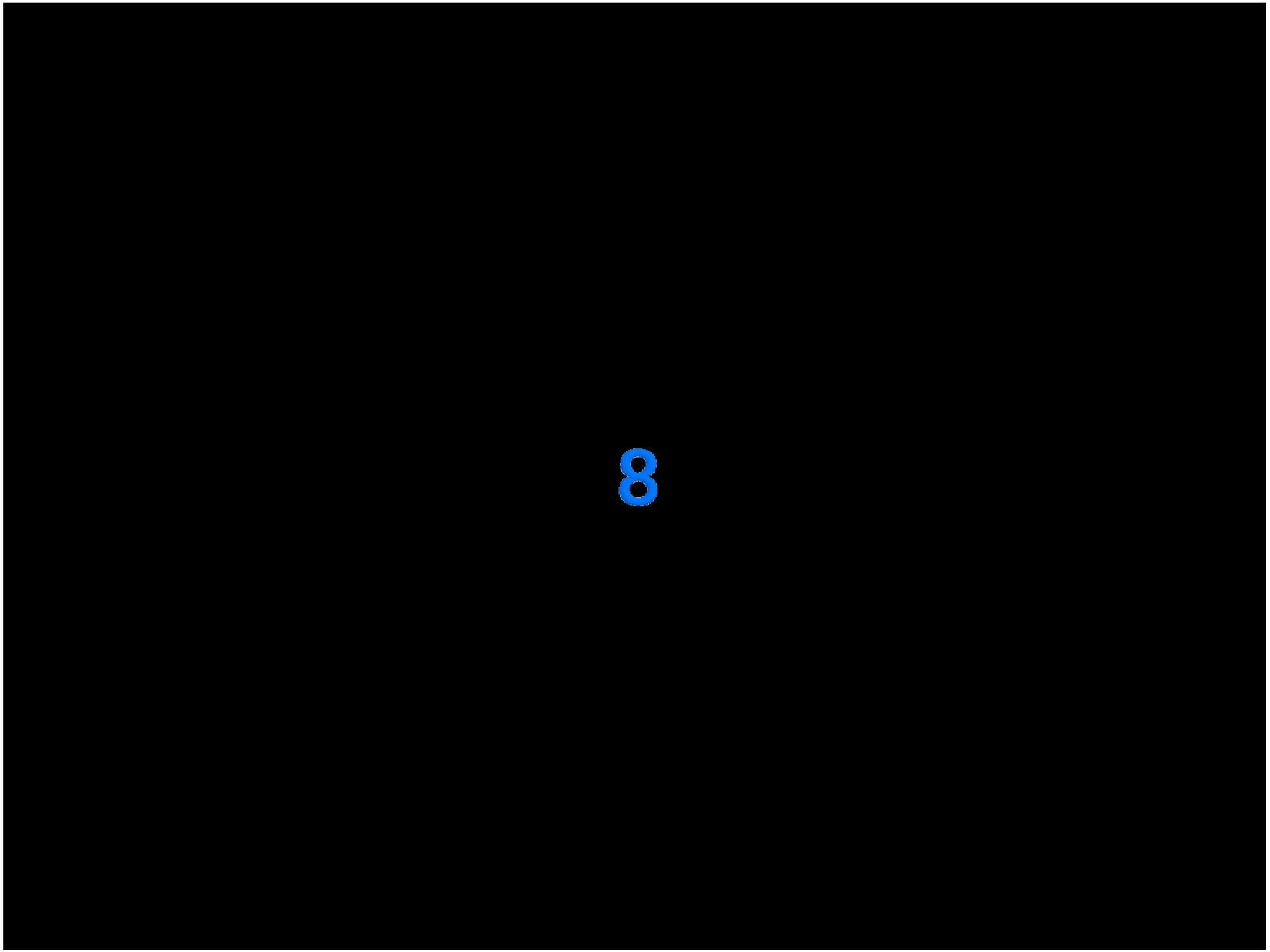
6

Not leveraging framework

7

Cowboy dev

by **joeltelling**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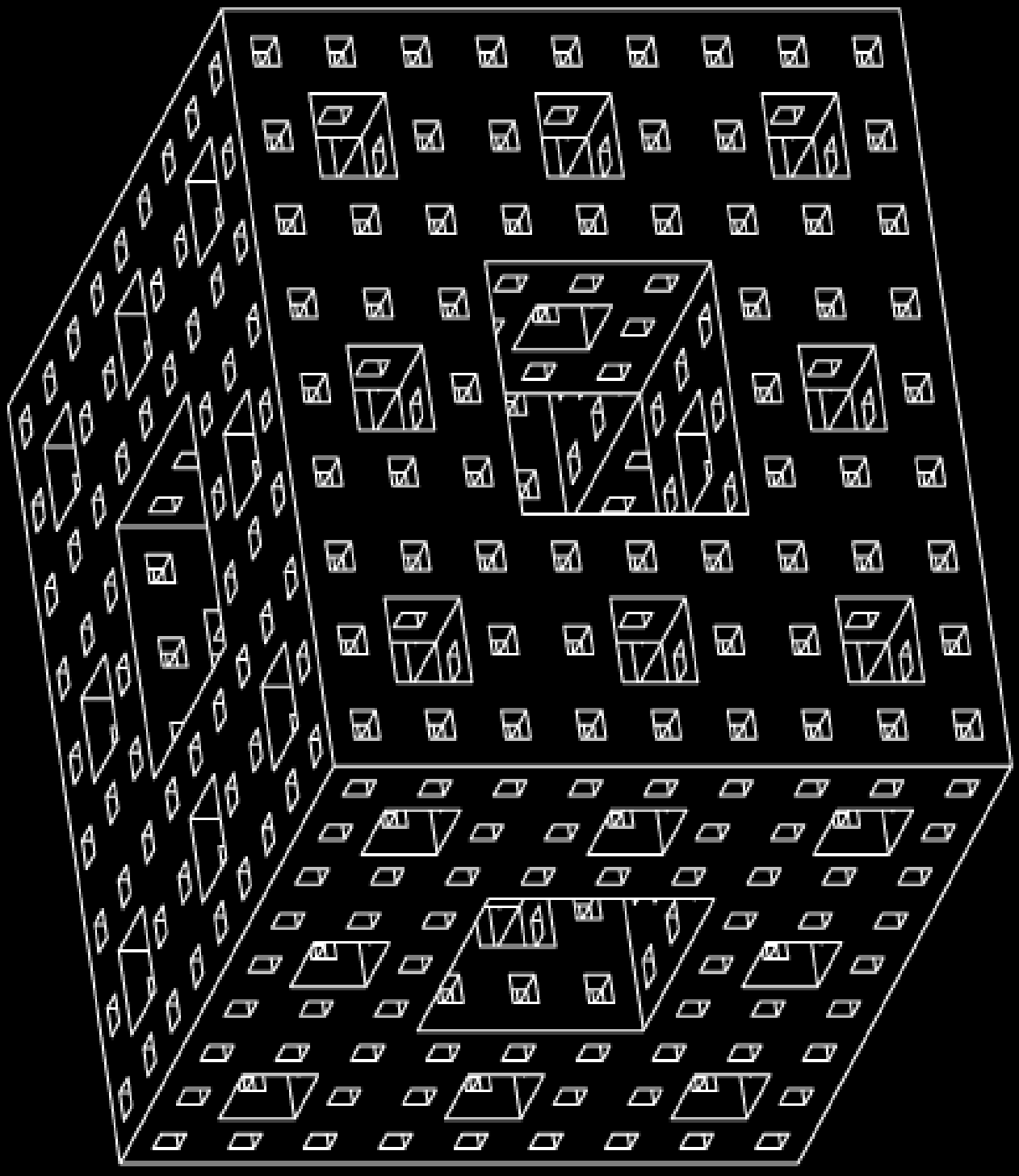
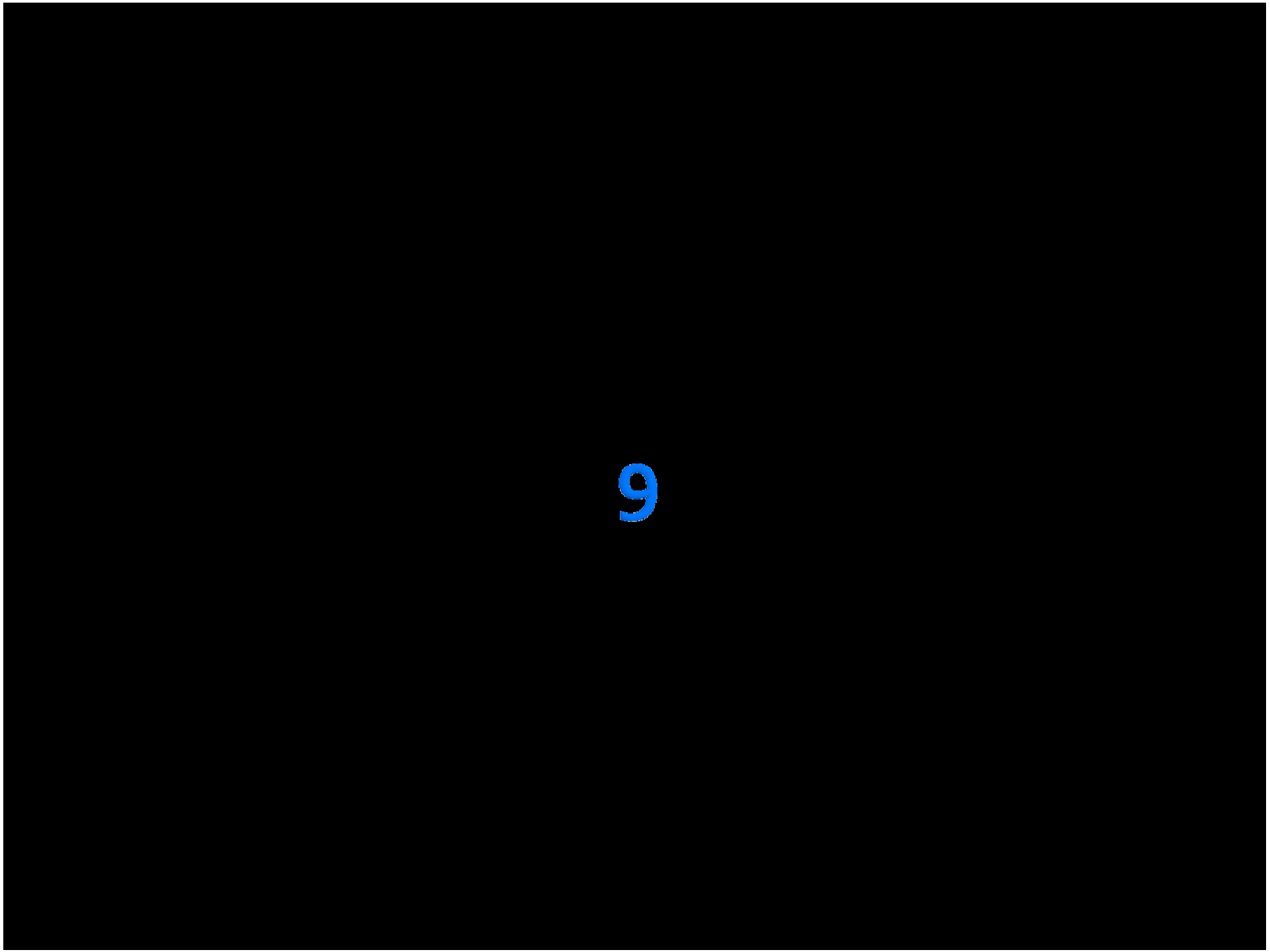
Too many containers

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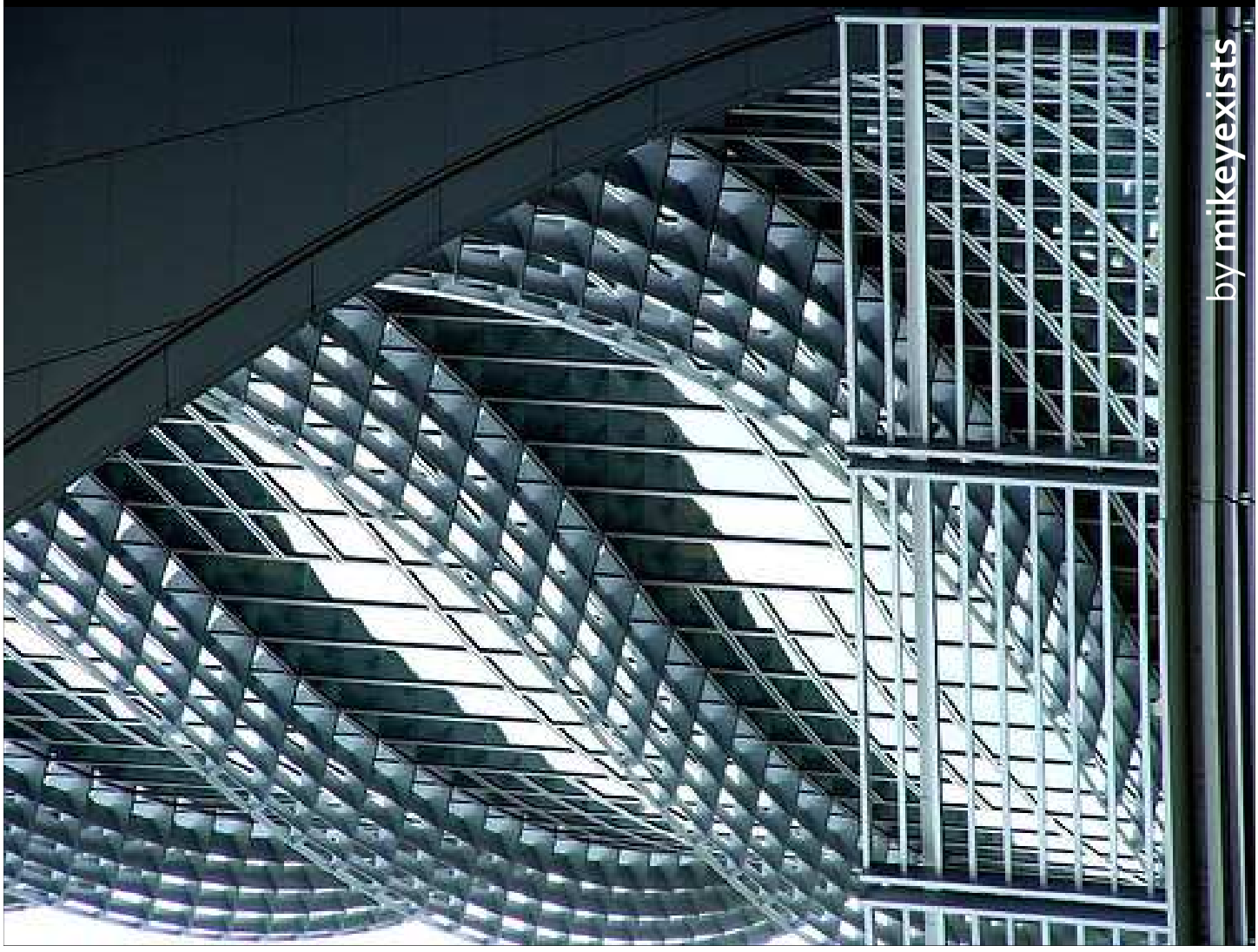
Overly complex rendering



by mikeyexists

10

BAD
RELIGION

What are some of your worst practices?

Take-aways

- Rich Internet Applications are meant to enhance user experience
- Architecture of the client matters
- Use good development practices
- Leverage the framework
- Build for the user
- Don’t get religious

Take the Next Step

- http://www.joshholmes.com
- http://www.jamesward.com

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