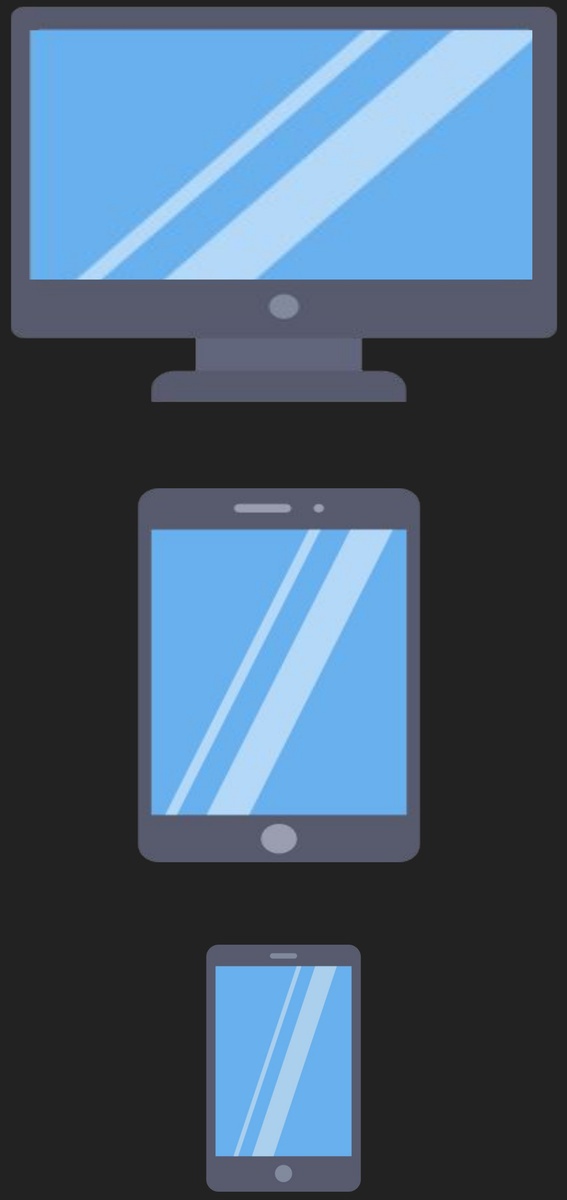
How to update apps and perform rollouts **without going through stores from a single code**?

Lucas Fonseca

Developer Advocate - Zup IT

Flower shop



Value proposition

- Identical design and experience across platforms
- Continuity experience across platforms
- Unique customer experience
- Different settings for each business rule
- Immediate content updates without through the Stores

Value proposition

Hypothesis testing

- Identical design and experience across platforms
- Continuity experience across platforms
- Unique customer experience
- Different settings for each business rule
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Hypothesis testing

HYPOTHESIS	It's always a statement, it's something you assume to be true but needs to be verified.
METRICS	Unit of measure to verify that the test was successful and the hypothesis was validated.
CRITERIA	Value you expect to achieve in the metric to validate your hypothesis.
THESIS	A hypothesis that, given the metrics, meets the criteria

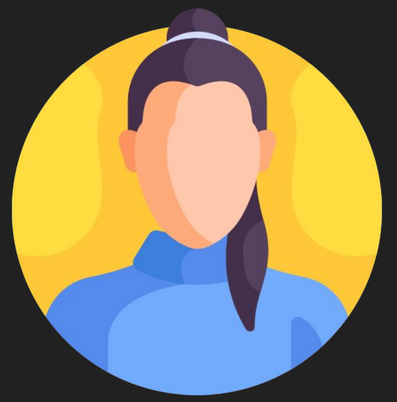
Hypothesis testing

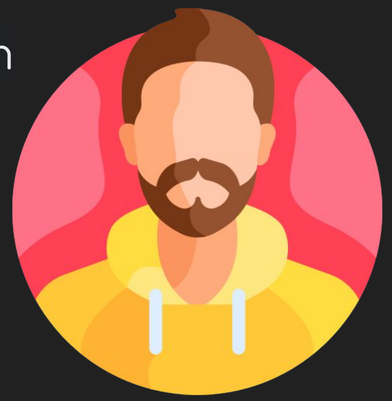
SMS is an effective communication channel for people over 35 years of age.

20% discount is enough for consumers to migrate from a physical solution to a fully digital one.

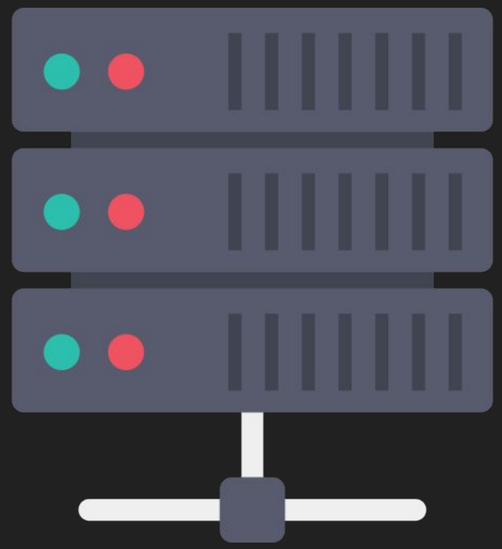
Which value proposition (A, B, or C) best communicates the benefits of my solution to my target audience.

If I increase the value of products by 1.5x, my customers will perceive more value and, consequently, convert more.

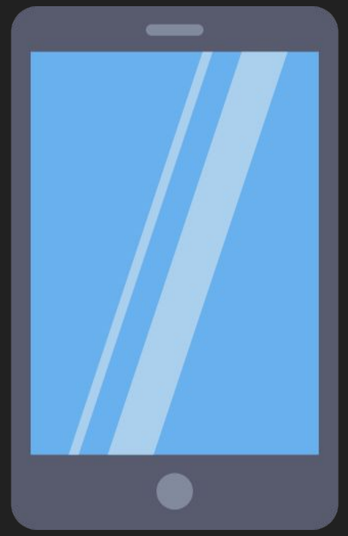




Hypothesis testing

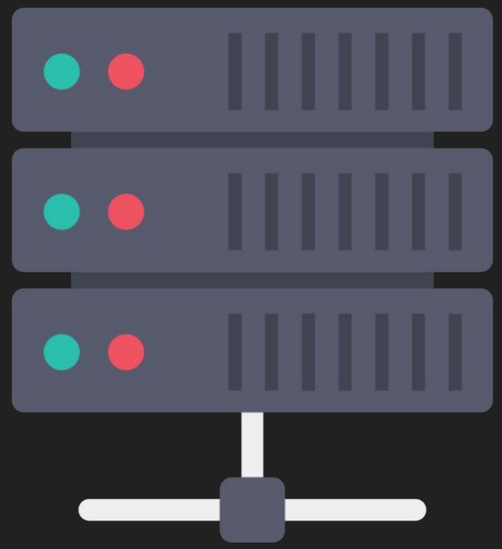


Server side

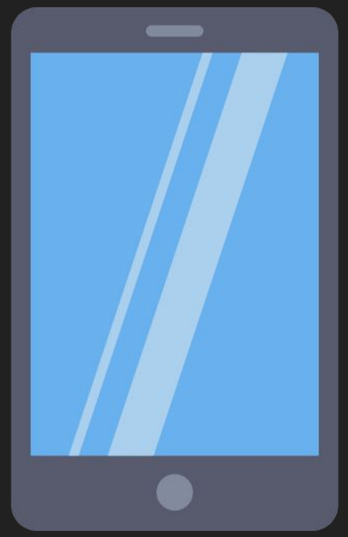


Normal way

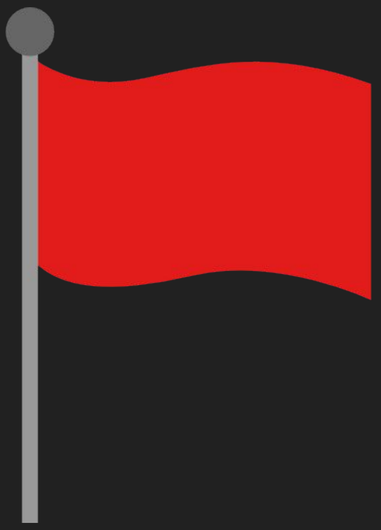
Hypothesis testing



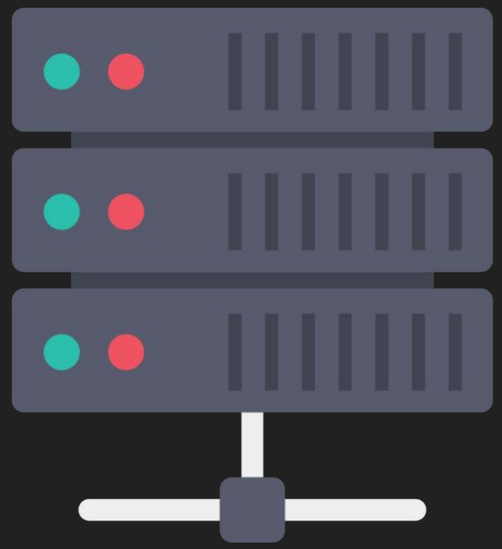
Server side



Feature Flags



Hypothesis testing



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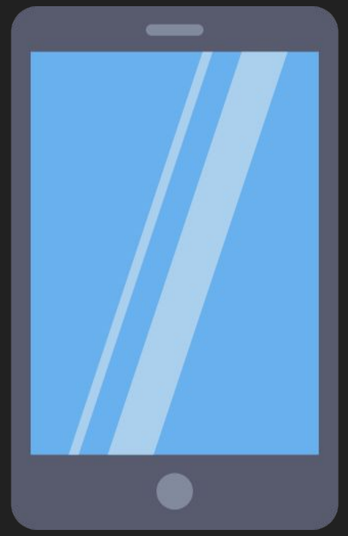
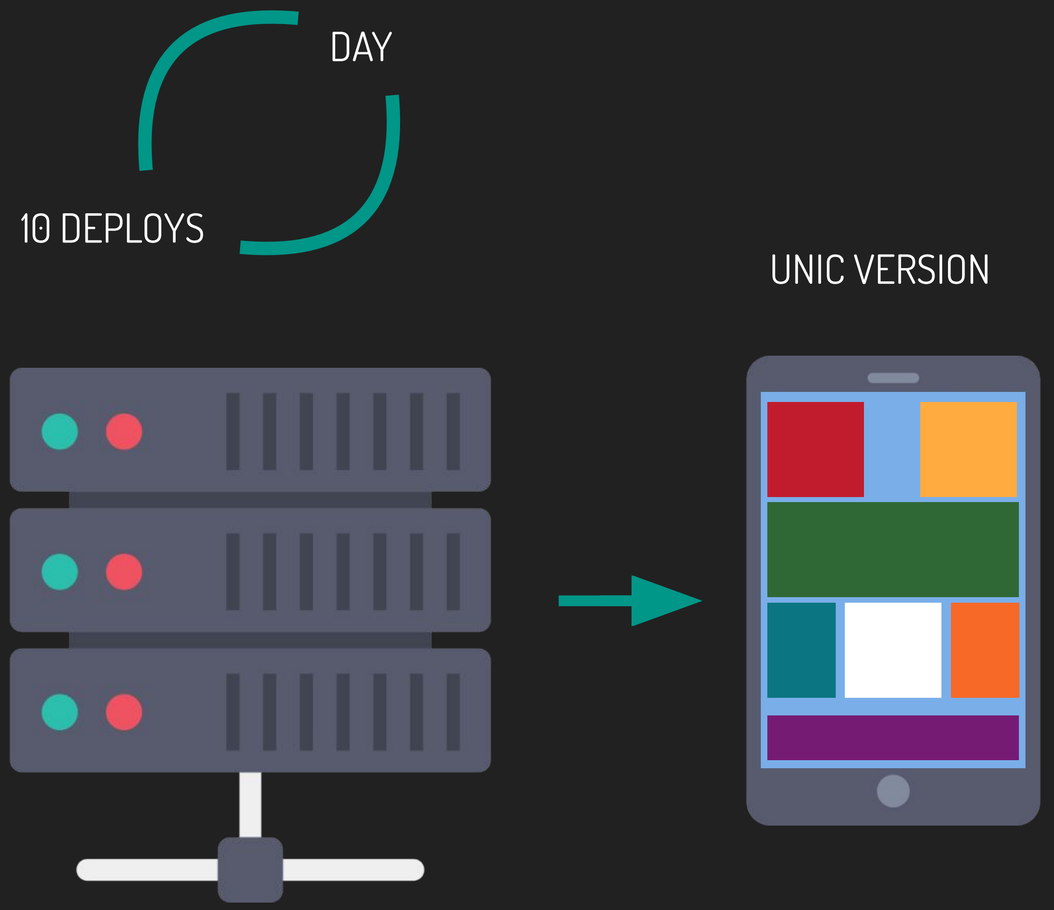
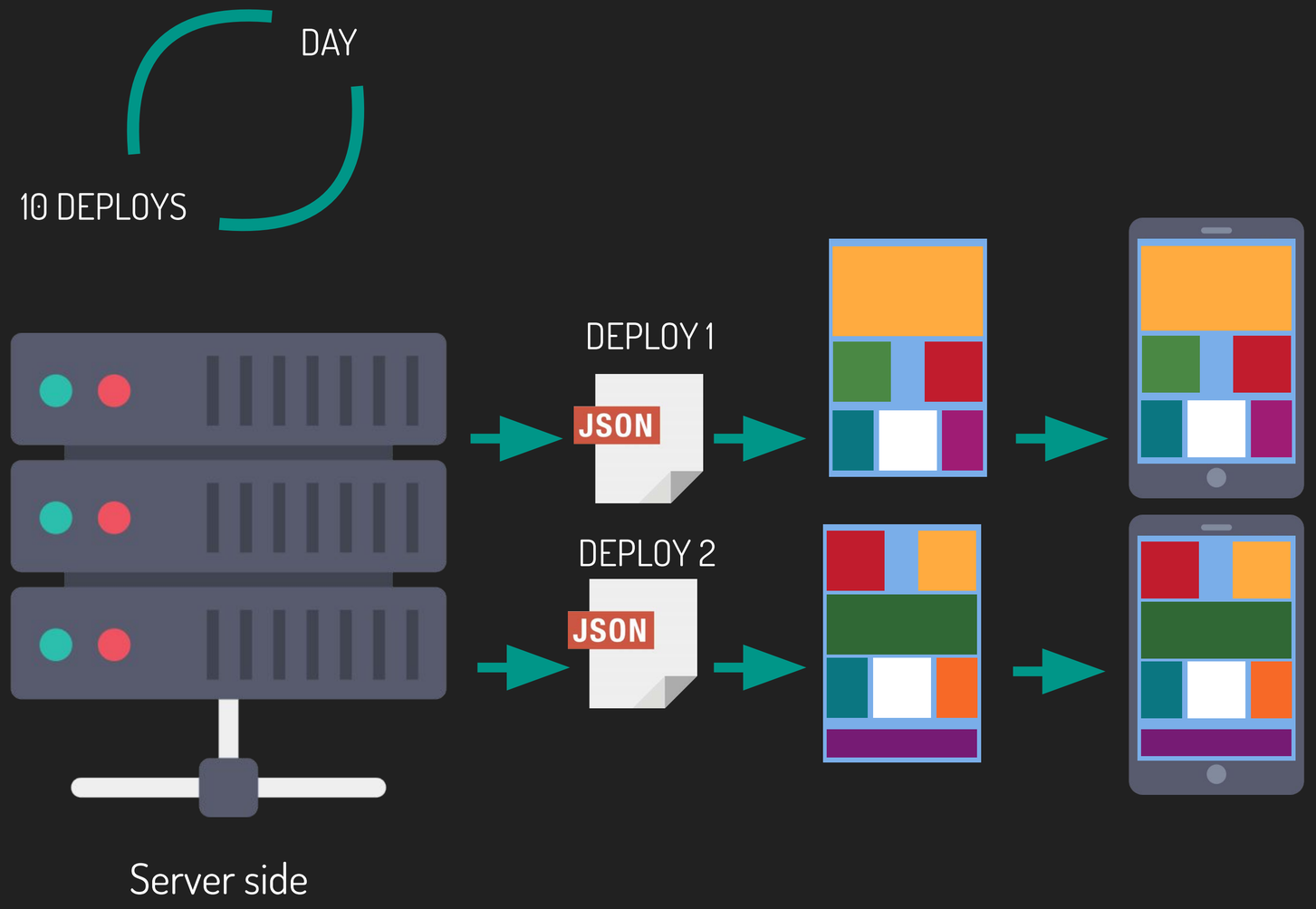


Server Driven UI

Hypothesis testing



Hypothesis testing



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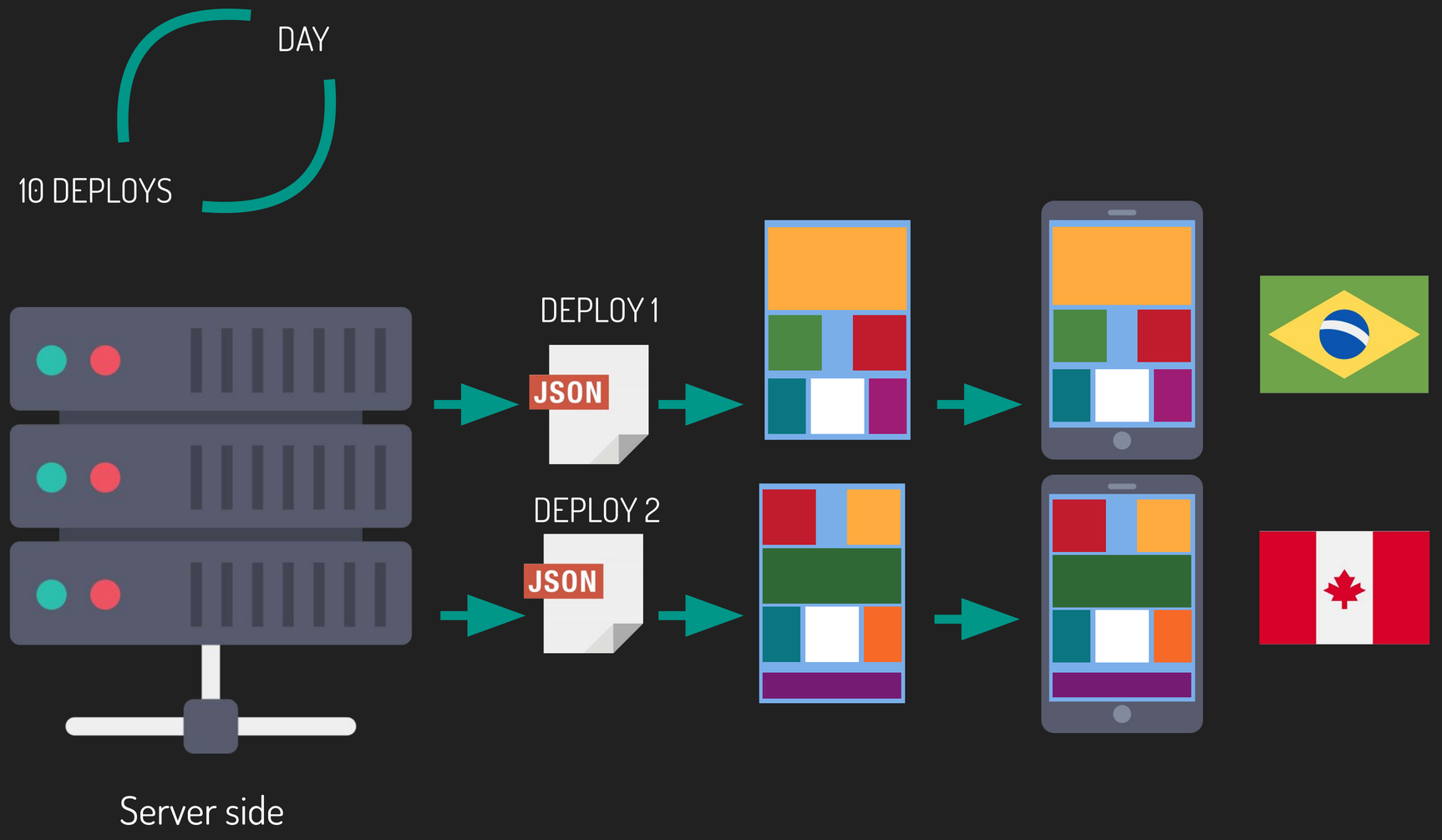
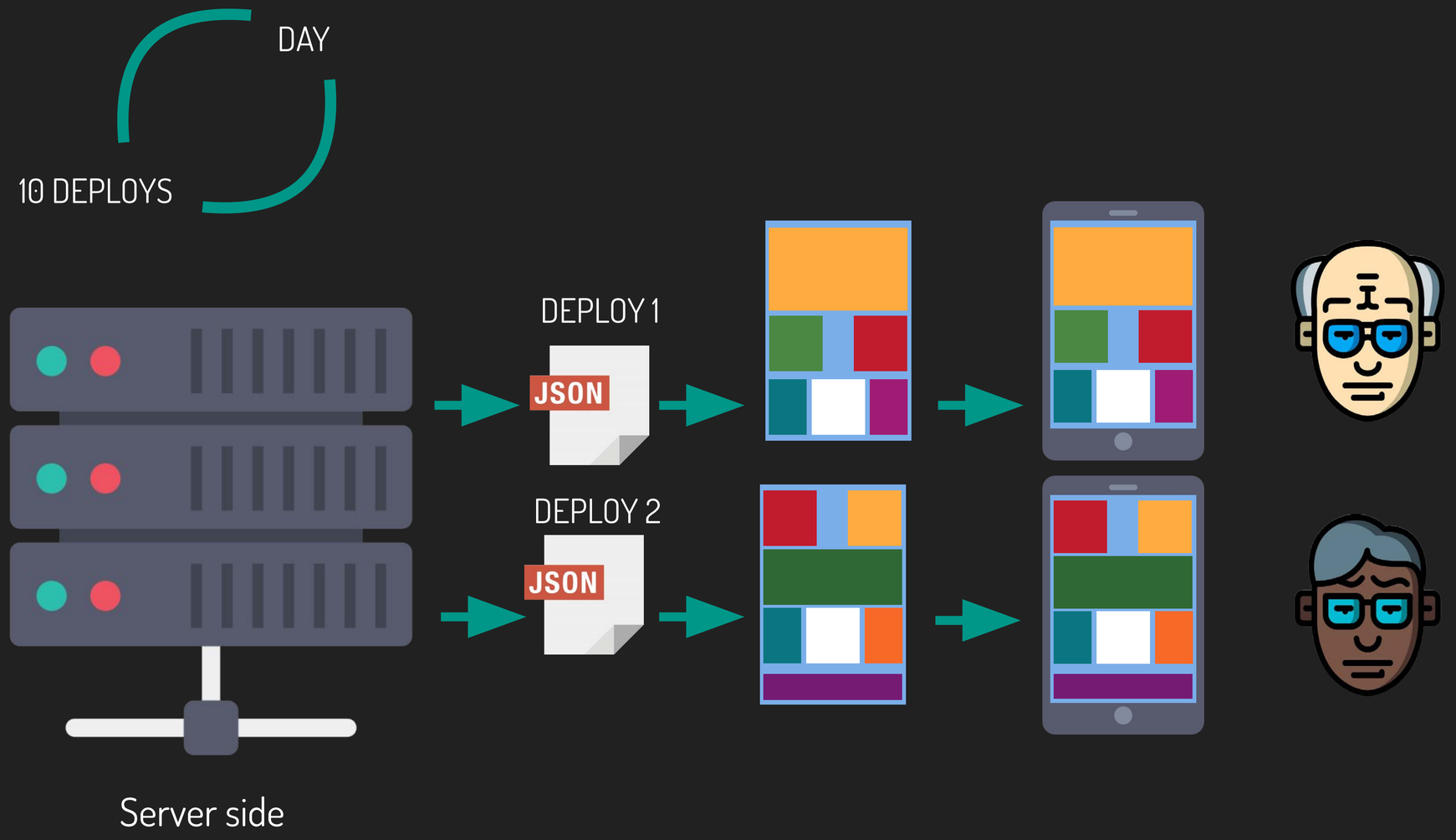


Hypothesis testing



Who uses ?

Who uses ?

SWIGGY

Flipkart

primephonic

ifood

iti

Server-Driven UI
What we need?

Design System

Image
2x1

Image

Color

Size

XS S M L XL

Variants

Button Label

Button Label

Button Label

4:21

Title

$23.99

Color

Size

XS S M L XL

+ Add to cart

Title 1 (Left Align)

Title 2 (Left Align)

Title 3 (Left Align)

Title 4 (Left Align)

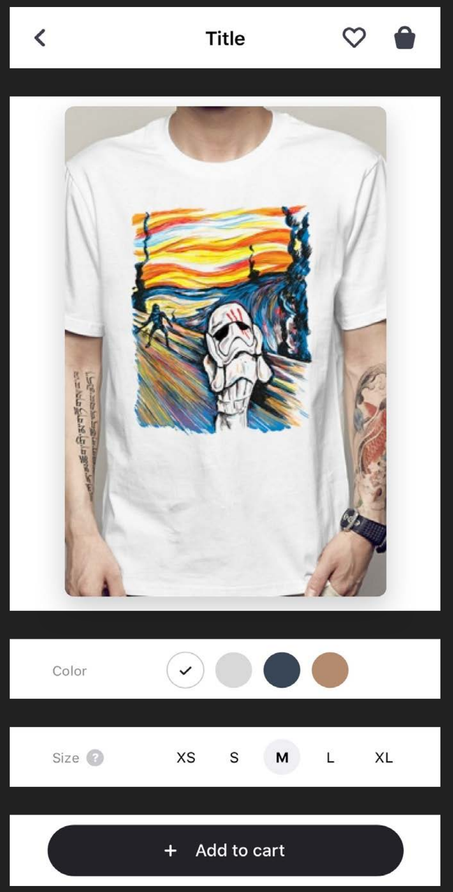
Headline (Left Align)

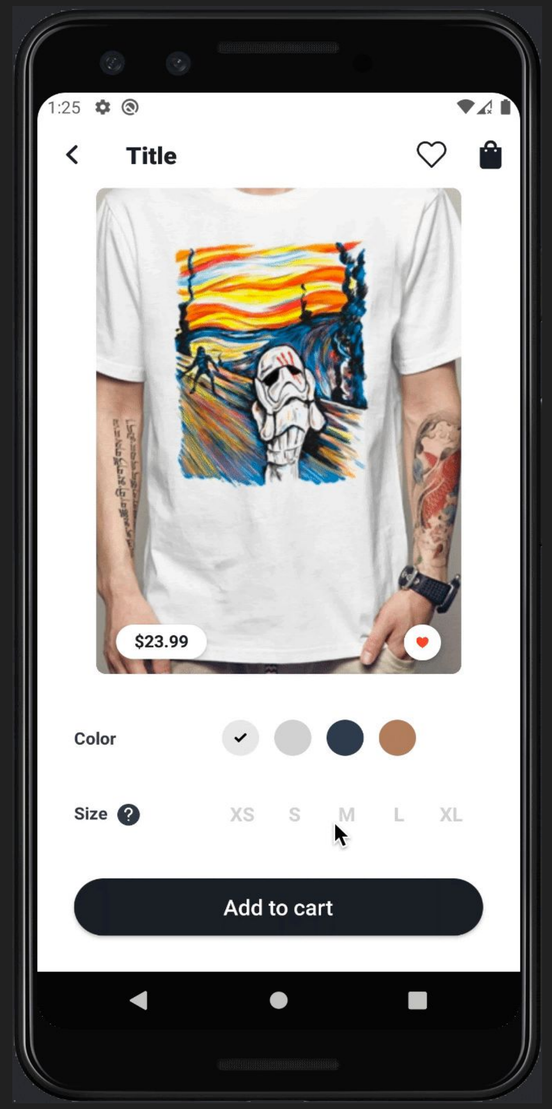
Text

Icons

JSON Contract

```
{
  "_beagleComponent_": "beagle:screenComponent",
  "navigationBar": {
    "title": "Title",
    "showBackButton": true,
    "styleId": "customNavigation",
    "navigationBarItems": [
      {
        "_beagleComponent_": "beagle:navigationBarItem",
        // ...
      },
      {
        "_beagleComponent_": "beagle:navigationBarItem",
        // ...
      }
    ]
  },
  "child": {
    "_beagleComponent_": "beagle:container",
    "children": [
      {
        "_beagleComponent_": "custom:outfitimage",
        // ...
      },
      {
        "_beagleComponent_": "custom:colorSelector",
        // ...
      },
      {
        "_beagleComponent_": "custom:sizeSelector",
        // ...
      },
      {
        "_beagleComponent_": "beagle:button",
        "text": "Add to cart",
        "styleId": "customButton",
      }
    ]
  }
}
```





When to use SD-UI

- Dynamic flows that contain many business rules
- When you want to apply A/B tests
- When you have recurring screen layout changes
- Different layout settings for each business rule
- When you need immediate content updates without through the Stores

When NOT to use SD-UI

- Application does not have a mature Design System
- Recurring changes to the design system
- Static screens or fluxes that don't change often
- Source code doesn't have layers that separate business rules from UIS
- Your service layer doesn't support scaling and A/B testing

Server-Driven UI
How can I do?

Frameworks

Flipkart

Proteus

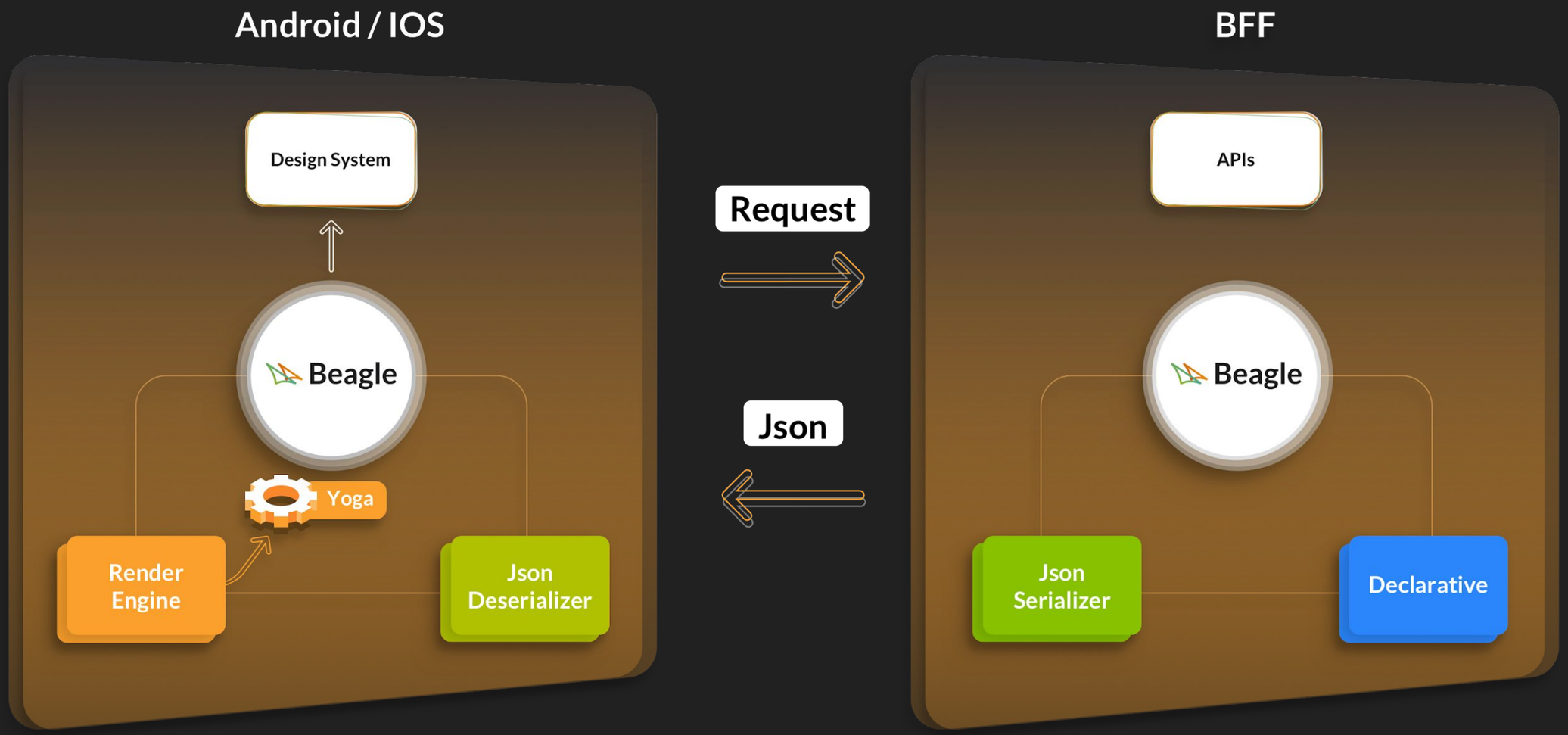
Lona

Graywter

Litho

Beagle

Font:
https://betterprogramming.pub/exploring-server-driven-ui-cf67b3da919


Android / IOS
Design System
Beagle
Yoga
Render Engine
Json Deserializer
Request
Json
BFF
APIs
Beagle
Json Serializer
Declarative

Let's code