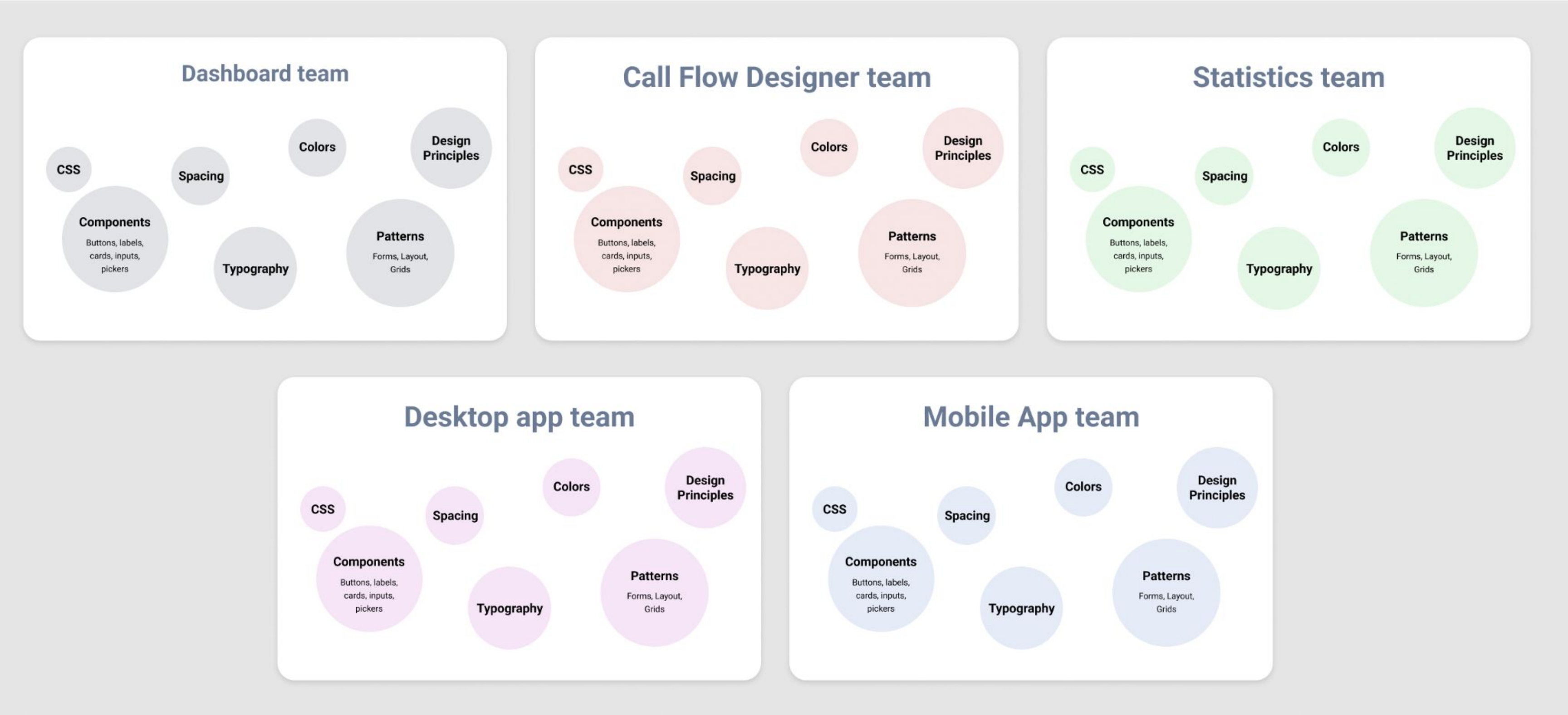
Bridge the Gap Between Design and Development

About me

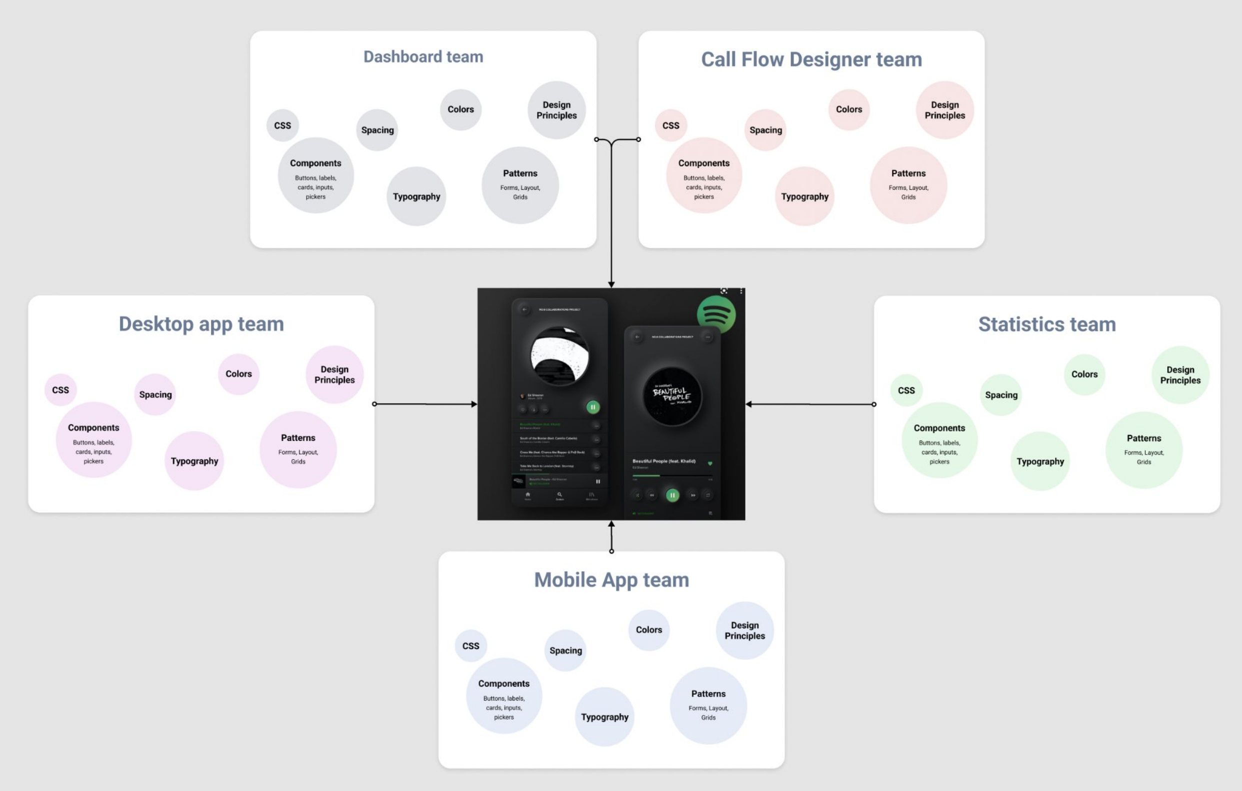
Ondřej Konečný

Designer and Developer

What is current situation?



What we want?



Dashboard team

CSS

Spacing

Colors

Design Principles

Components
Buttons, labels, cards, inputs, pickers

Typography

Patterns
Forms, Layout, Grids

Call Flow Designer team

CSS

Spacing

Colors

Design Principles

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Buttons, labels, cards, inputs, pickers

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Desktop app team

CSS

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Statistics team

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Mobile App team

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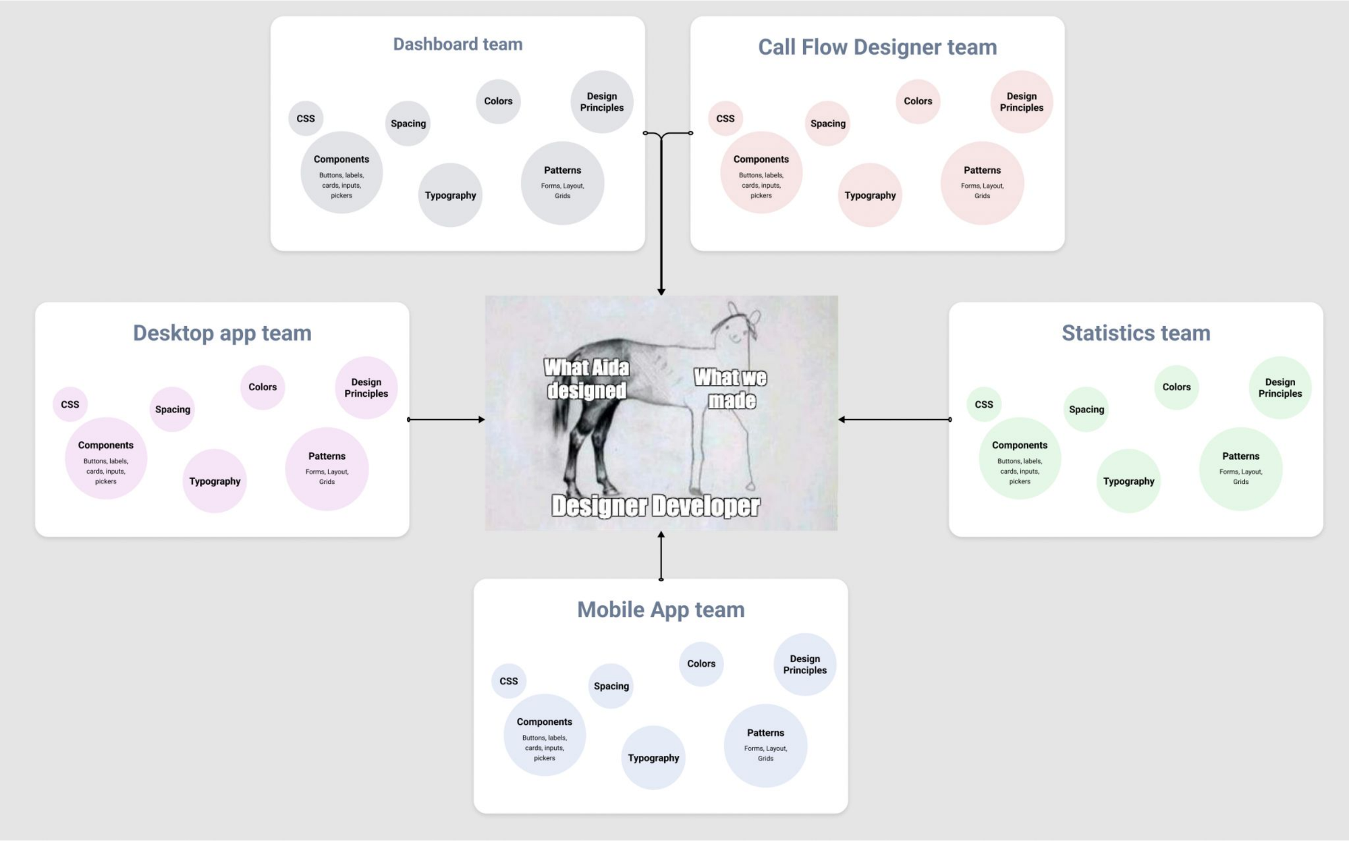
What we (probably) get?



Dashboard team

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Call Flow Designer team

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Desktop app team

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Statistics team

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Mobile App team

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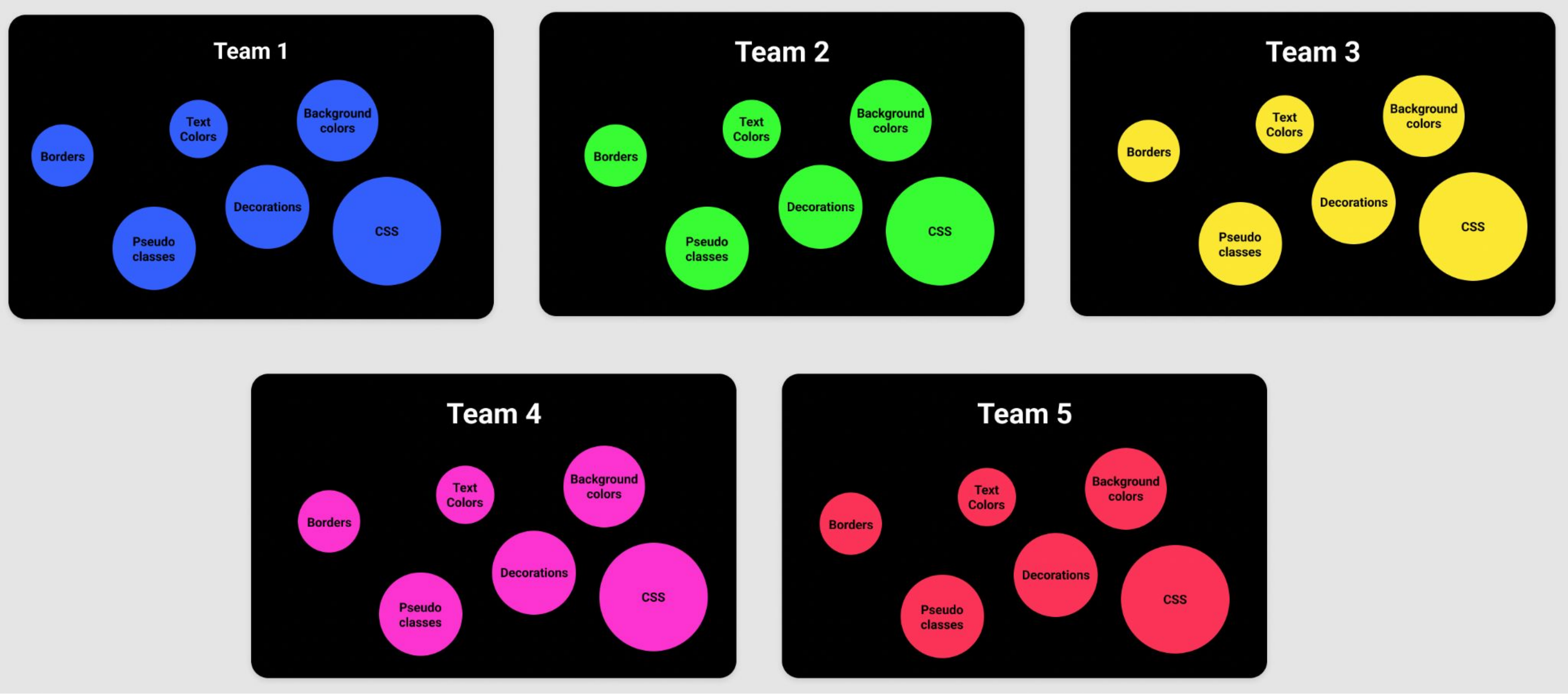
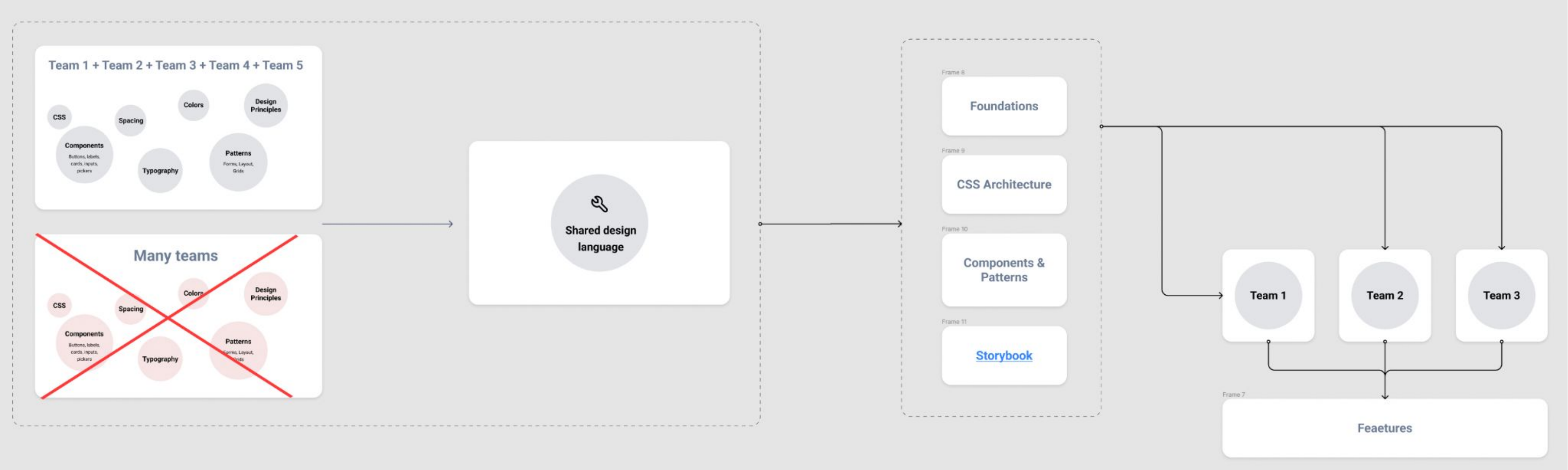
What if there is a design update?

Little redesign? Bug fixing? Component modification? Font change? **Dark mode**?

Dark mode example.



How we can improve it?



Team 1 + Team 2 + Team 3 + Team 4 + Team 5

CSS

Spacing

Colors

Design Principles

Components

Buttons, labels, cards, inputs, pickers

Typography

Patterns

Forms, Layout, Grids

~~Many teams~~

~~CSS~~

~~Spacing~~

~~Colors~~

~~Design Principles~~

~~Components~~

~~Buttons, labels, cards, inputs, pickers~~

~~Typography~~

~~Patterns~~

~~Forms, Layout, Grids~~

Shared design language

Frame 8

Foundations

Frame 9

CSS Architecture

Frame 10

Components & Patterns

Frame 11

Storybook

Team 1

Team 2

Team 3

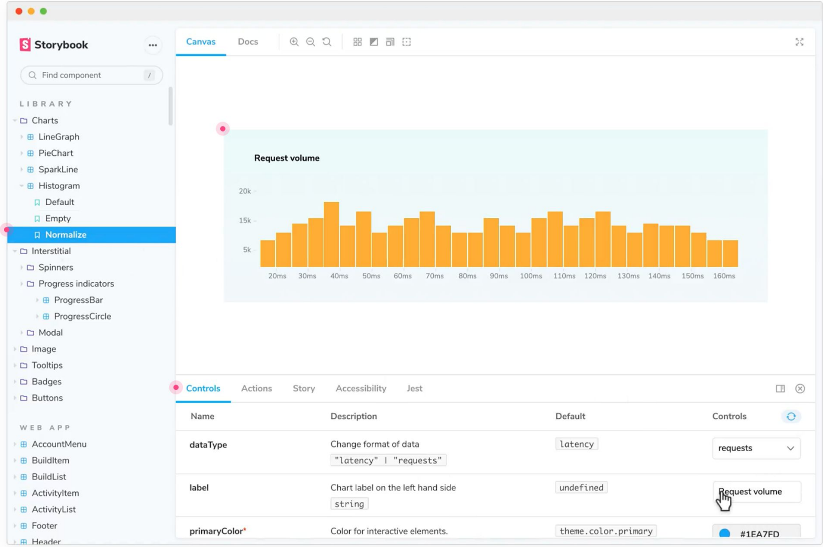
Frame 7

Feaetures

Storybook for the win.

Storybook

LIVE VERSION



Name	Description	Default	Controls
dataType	Change format of data "latency" | "requests"	latency	requests
label	Chart label on the left hand side string	undefined	Request volume
primaryColor*	Color for interactive elements.	theme.color.primary	#1EA7FD

What is Storybook good for?

✅ UI development

✅ Documentation

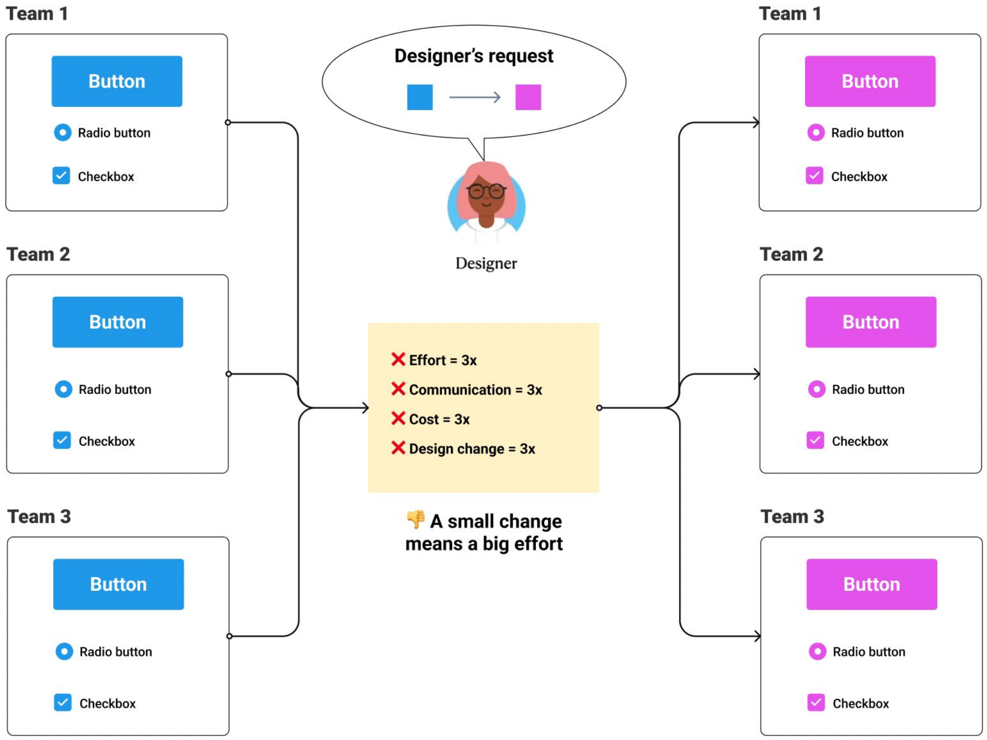
✅ Single source of truth

✅ Testing

✅ Live and actual state of the components

✅ Can be used by developers, designers, managers, testers

Recap



Team 1

Button

◉ Radio button

☑ Checkbox

Team 2

Button

◉ Radio button

☑ Checkbox

Team 3

Button

◉ Radio button

☑ Checkbox

Designer's request

🟦 → 🟪

Designer

❌ Effort = 3x

❌ Communication = 3x

❌ Cost = 3x

❌ Design change = 3x

👎 A small change means a big effort

Team 1

Button

◉ Radio button

☑ Checkbox

Team 2

Button

◉ Radio button

☑ Checkbox

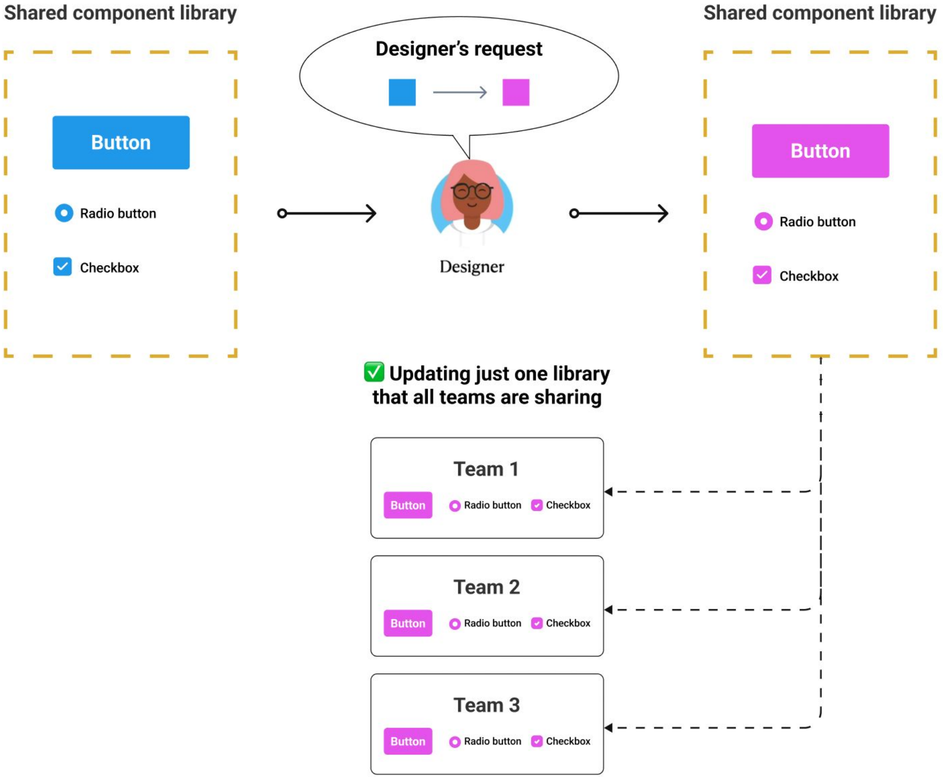
Team 3

Button

◉ Radio button

☑ Checkbox

Recap



Shared component library

Button

Radio button

Checkbox

Designer's request

Designer

Shared component library

Button

Radio button

Checkbox

✅ Updating just one library that all teams are sharing

Team 1

Button Radio button Checkbox

Team 2

Button Radio button Checkbox

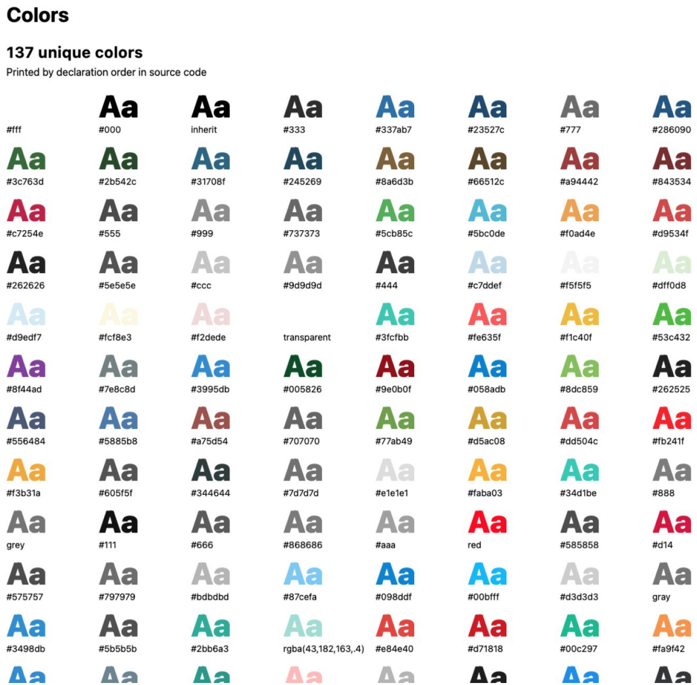
Team 3

Button Radio button Checkbox

So, what should we do?

- ➔ Create scalable and maintainable Front-End Architecture
- ➔ Create a shared component library
- ➔ Unify frameworks, methodologies, naming conventions etc.

Why?

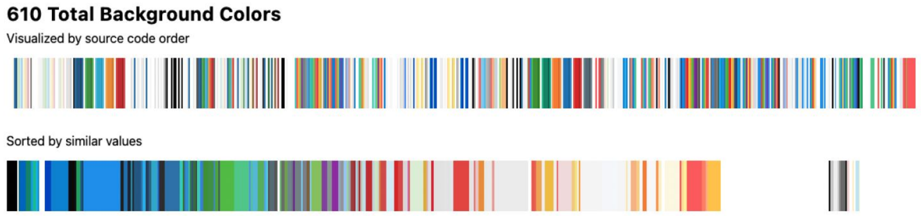


Colors

137 unique colors

Printed by declaration order in source code

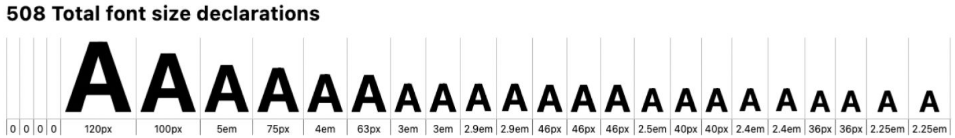
#fff	Aa #000	Aa inherit	Aa #333	Aa #337ab7	Aa #23527c	Aa #777	Aa #286090
Aa #3c763d	Aa #2b542c	Aa #31708f	Aa #245269	Aa #8a6d3b	Aa #66512c	Aa #a94442	Aa #843534
Aa #c7254e	Aa #555	Aa #999	Aa #737373	Aa #5cb85c	Aa #5bc0de	Aa #f0ad4e	Aa #d9534f
Aa #262626	Aa #5e5e5e	Aa #ccc	Aa #9d9d9d	Aa #444	Aa #c7ddef	Aa #f5f5f5	Aa #dff0d8
Aa #d9edf7	Aa #fcf8e3	Aa #f2dede	transparent	Aa #3fcfbb	Aa #fe635f	Aa #f1c40f	Aa #53c432
Aa #8f44ad	Aa #7e8c8d	Aa #3995db	Aa #005826	Aa #9e0b0f	Aa #058adb	Aa #8dc859	Aa #262525
Aa #556484	Aa #5885b8	Aa #a75d54	Aa #707070	Aa #77ab49	Aa #d5ac08	Aa #dd504c	Aa #fb241f
Aa #f3b31a	Aa #605f5f	Aa #344644	Aa #7d7d7d	Aa #e1e1e1	Aa #faba03	Aa #34d1be	Aa #888
Aa grey	Aa #111	Aa #666	Aa #868686	Aa #aaa	Aa red	Aa #585858	Aa #d14
Aa #575757	Aa #797979	Aa #bdbdbd	Aa #87cefa	Aa #098ddf	Aa #00bfff	Aa #d3d3d3	Aa gray
Aa #3498db	Aa #5b5b5b	Aa #2bb6a3	Aa rgba(43,182,163,.4)	Aa #e84e40	Aa #d71818	Aa #00c297	Aa #fa9f42
Aa	Aa	Aa	Aa	Aa	Aa	Aa	Aa



610 Total Background Colors

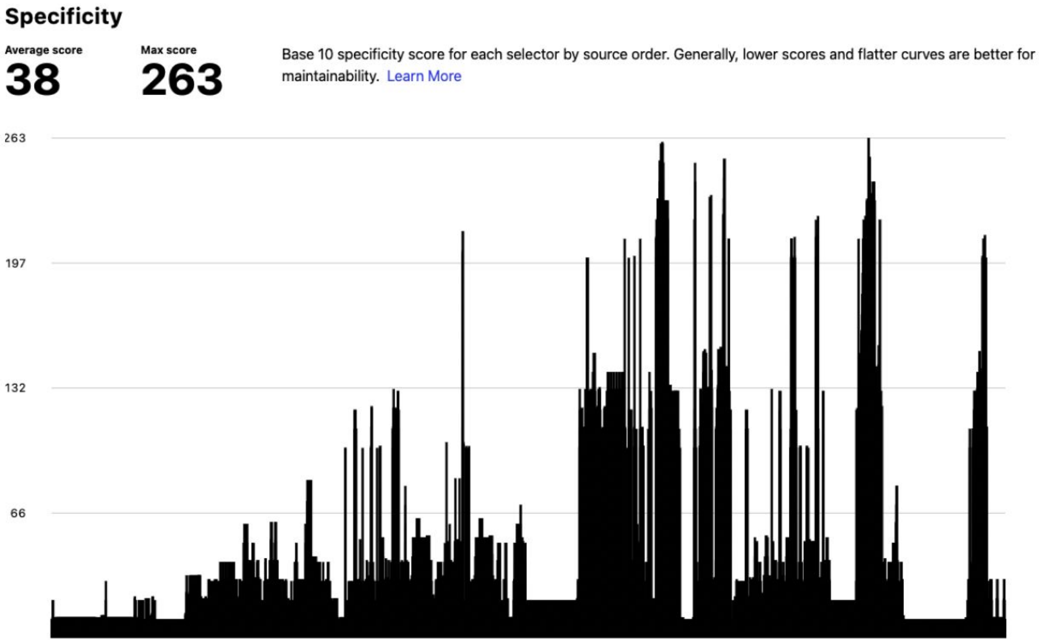
Visualized by source code order

Sorted by similar values



508 Total font size declarations

Because of high CSS specificity



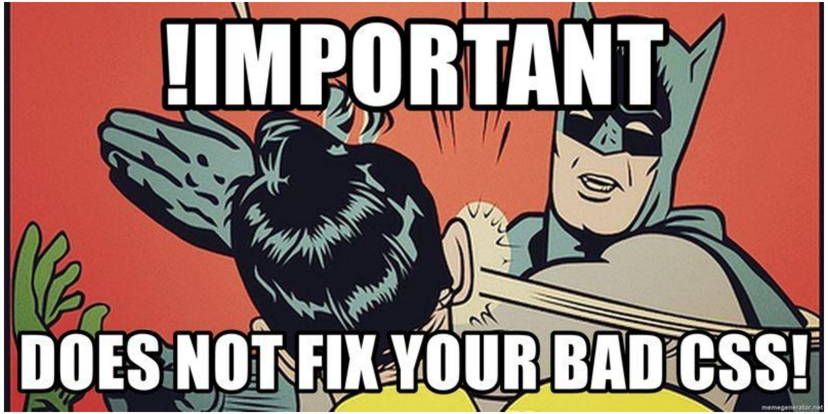
Specificity

Average score
38

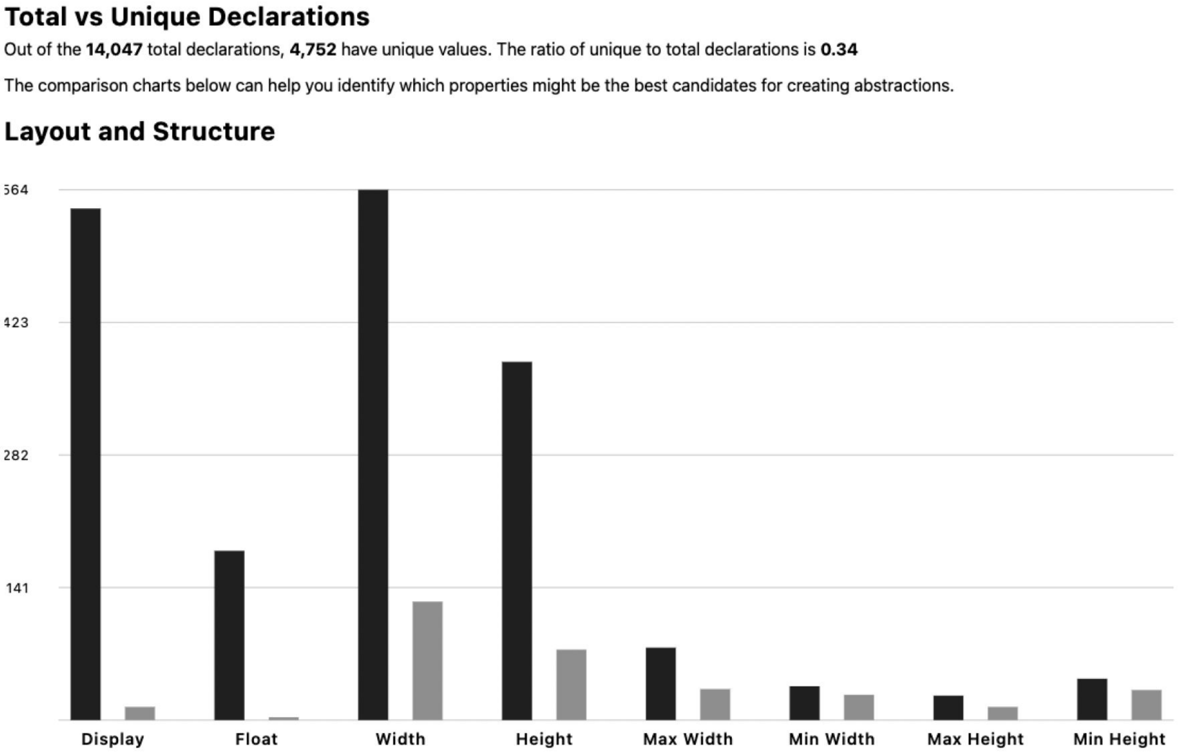
Max score
263

Base 10 specificity score for each selector by source order. Generally, lower scores and flatter curves are better for maintainability. Learn More

We do not want this.



Because there is ⅔ unnecessary code.



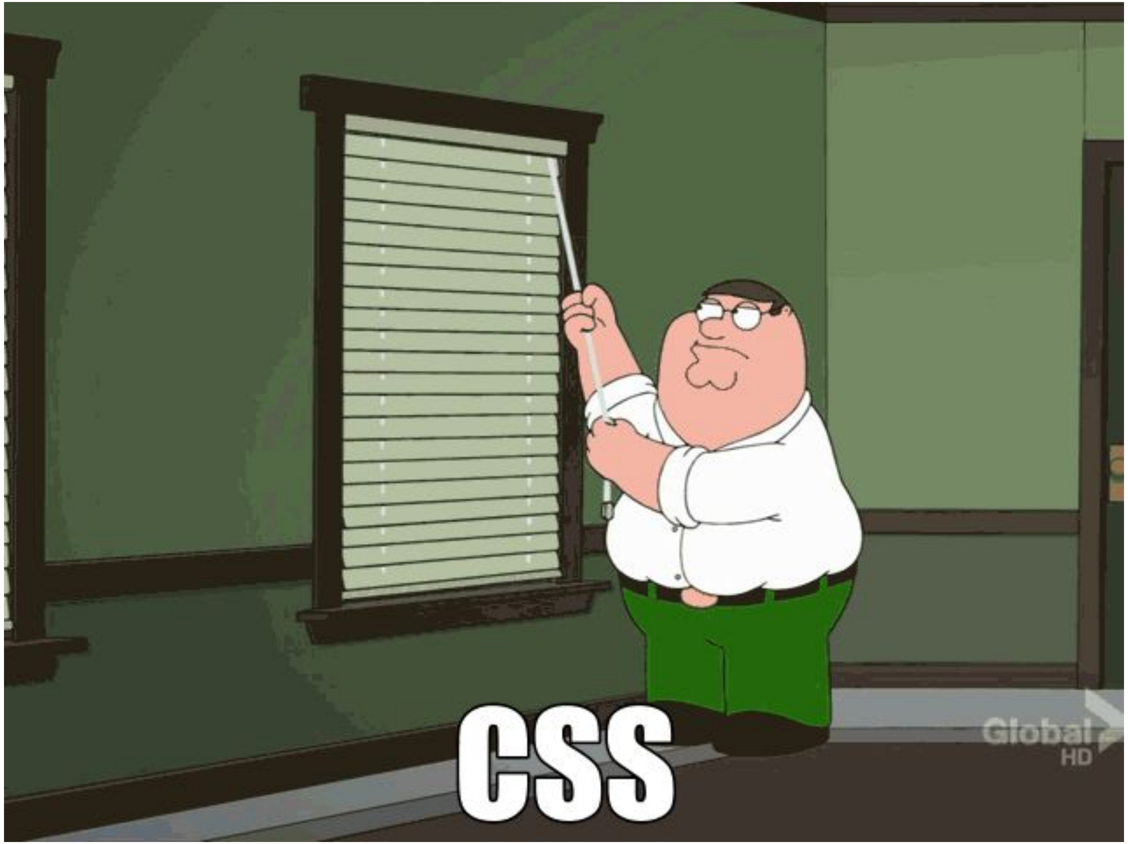
Total vs Unique Declarations

Out of the **14,047** total declarations, **4,752** have unique values. The ratio of unique to total declarations is **0.34**

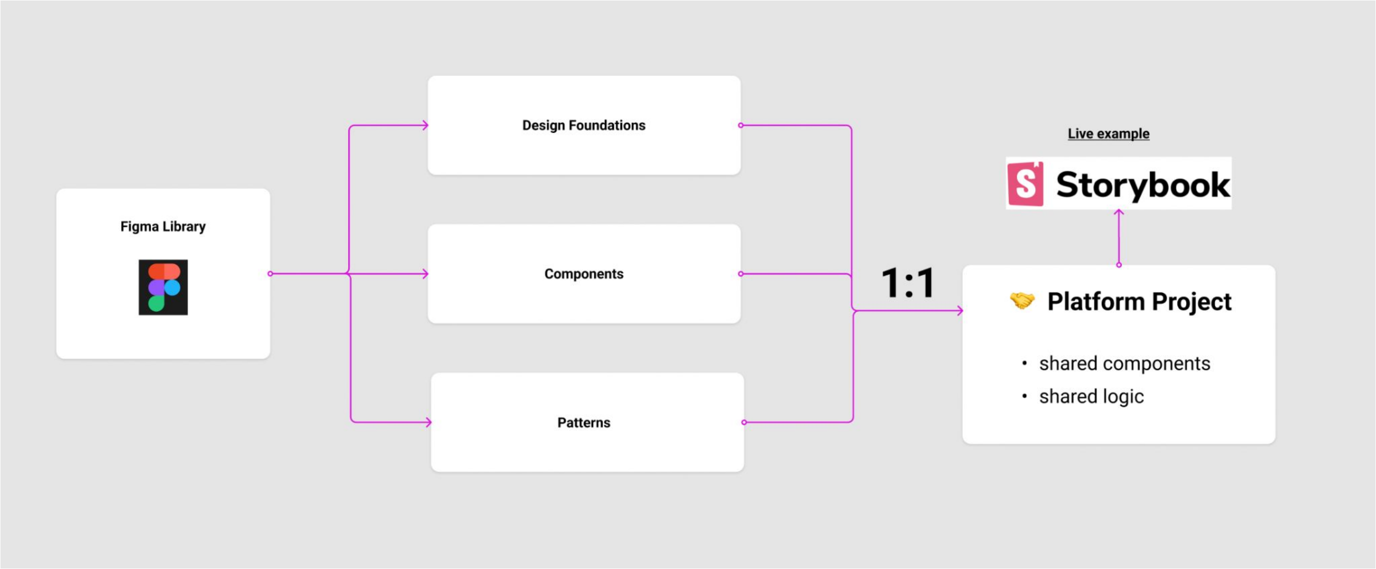
The comparison charts below can help you identify which properties might be the best candidates for creating abstractions.

Layout and Structure

And because we don't like troubles.



Agan. What is the solution?



Figma Library

Design Foundations

Components

Patterns

1:1

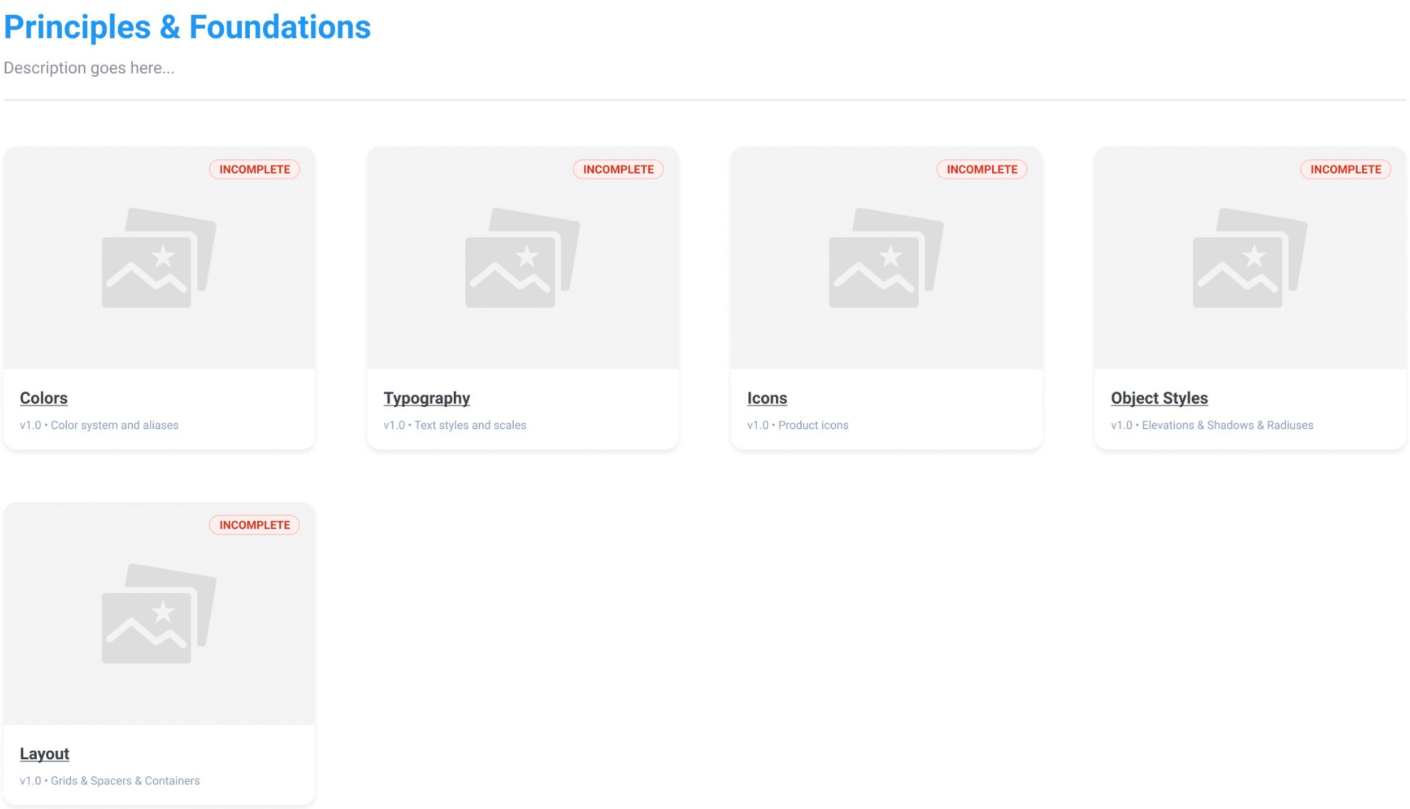
Live example

Storybook

🤝 Platform Project

- shared components
- shared logic

Figma inside - Foundations



Principles & Foundations

Description goes here...

INCOMPLETE

Colors

v1.0 • Color system and aliases

INCOMPLETE

Typography

v1.0 • Text styles and scales

INCOMPLETE

Icons

v1.0 • Product icons

INCOMPLETE

Object Styles

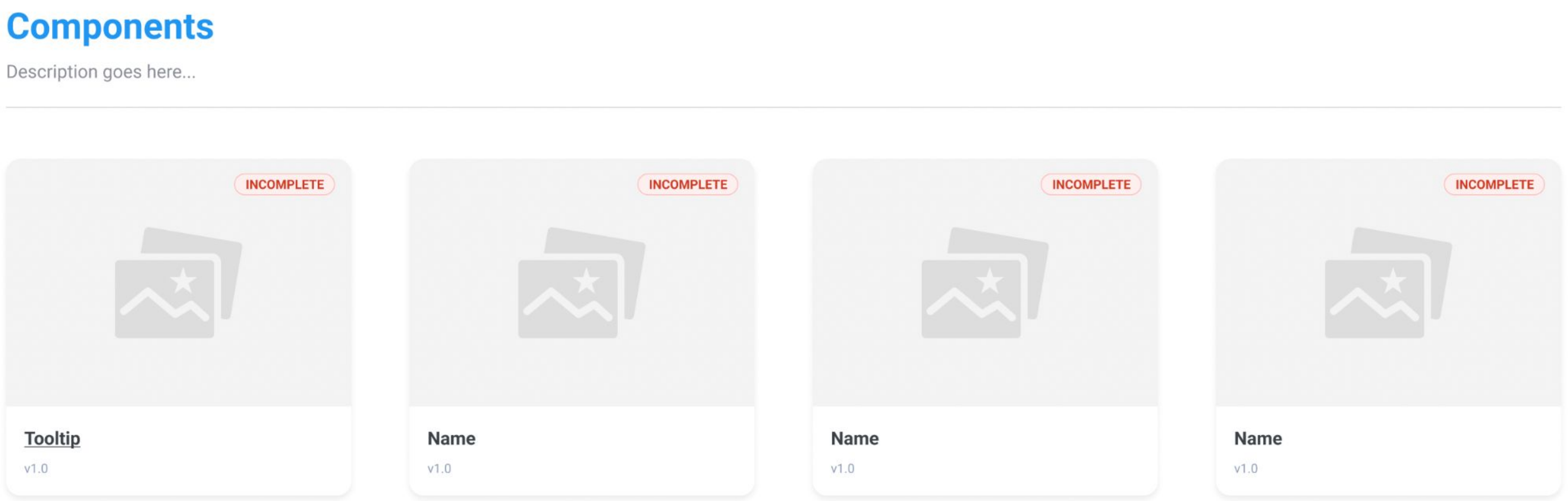
v1.0 • Elevations & Shadows & Radiuses

INCOMPLETE

Layout

v1.0 • Grids & Spacers & Containers

Figma inside - Components



Components

Description goes here...

INCOMPLETE

Tooltip

v1.0

INCOMPLETE

Name

v1.0

INCOMPLETE

Name

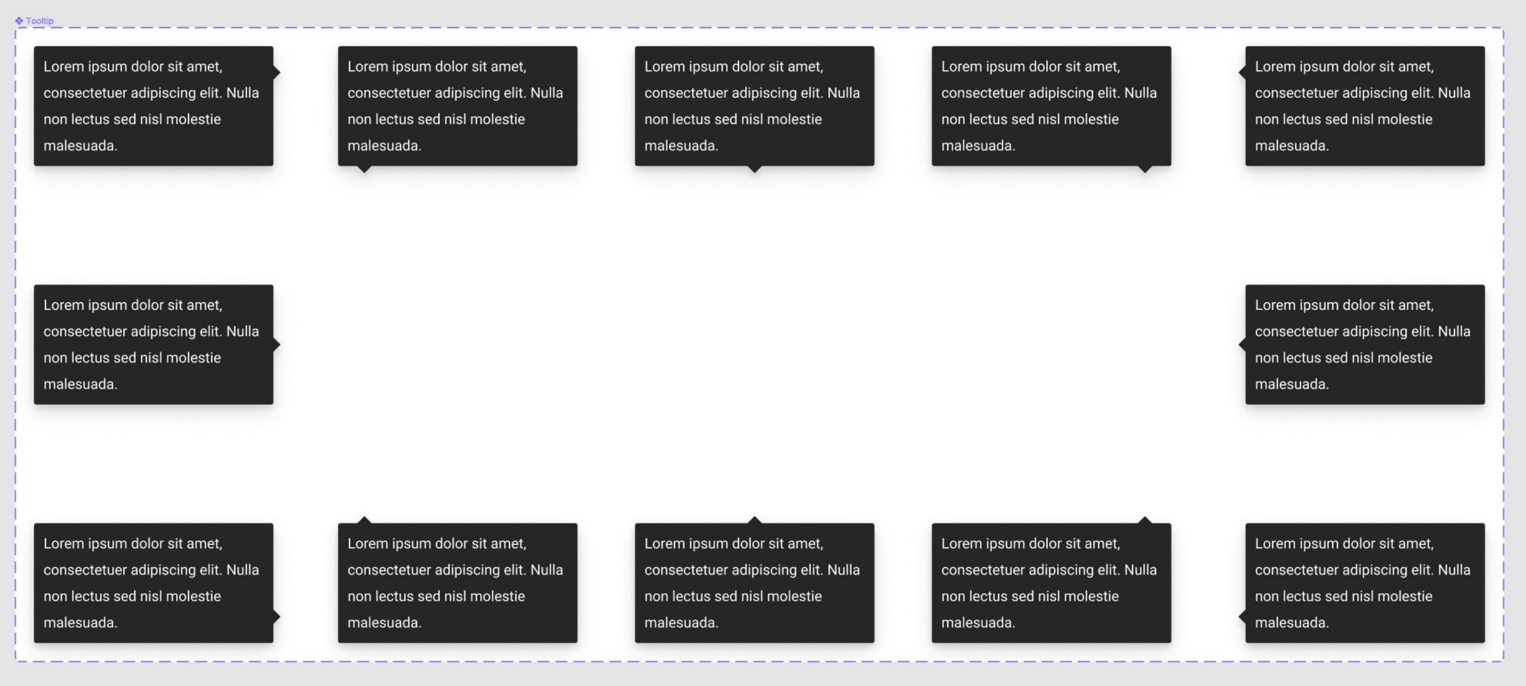
v1.0

INCOMPLETE

Name

v1.0

Figma inside - Tooltip



Lorem ipsum dolor sit amet, consectetuer adipiscing elit. Nulla non lectus sed nisl molestie malesuada.

Lorem ipsum dolor sit amet, consectetuer adipiscing elit. Nulla non lectus sed nisl molestie malesuada.

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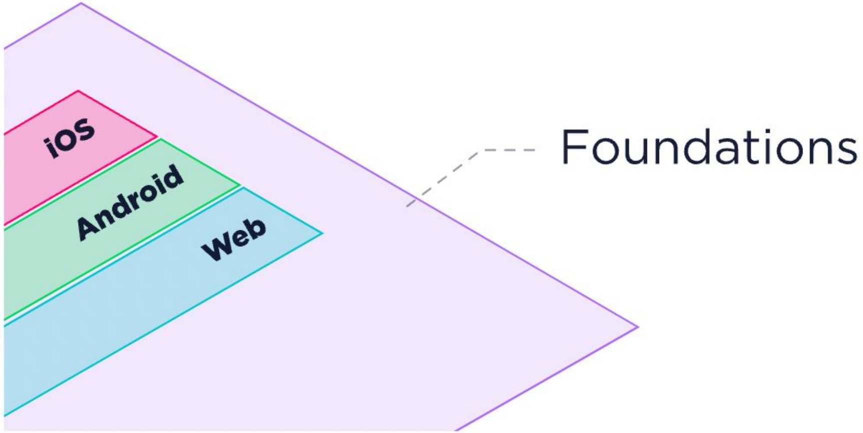
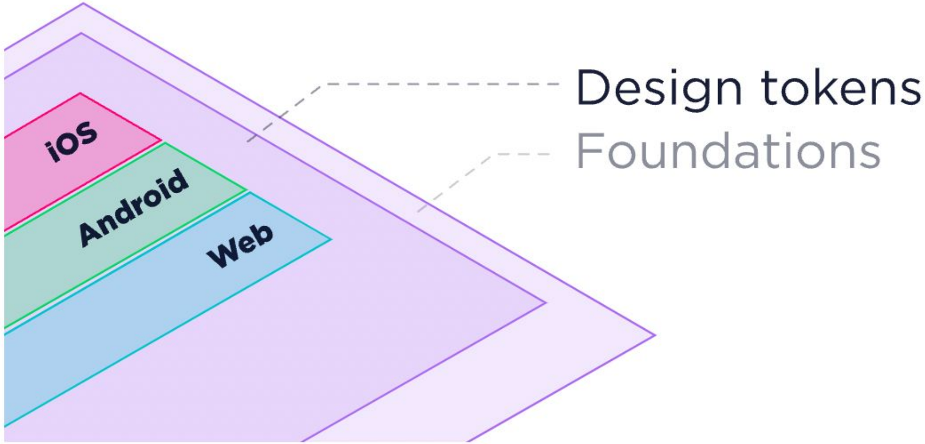
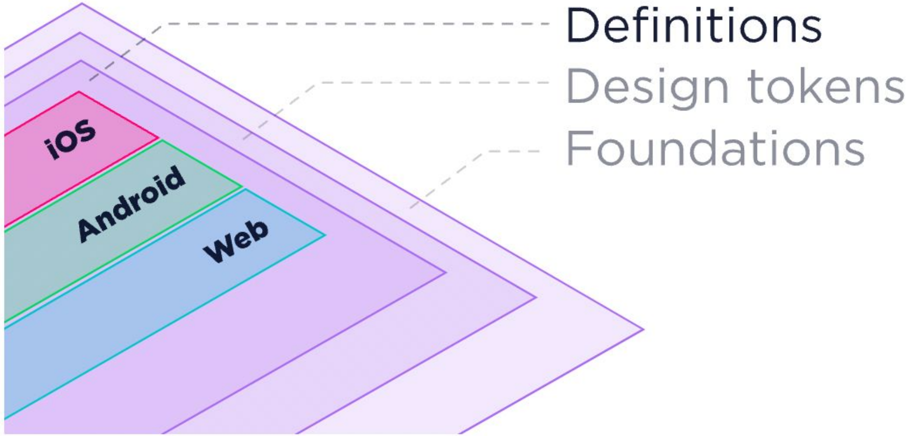
Fundamentals of the design



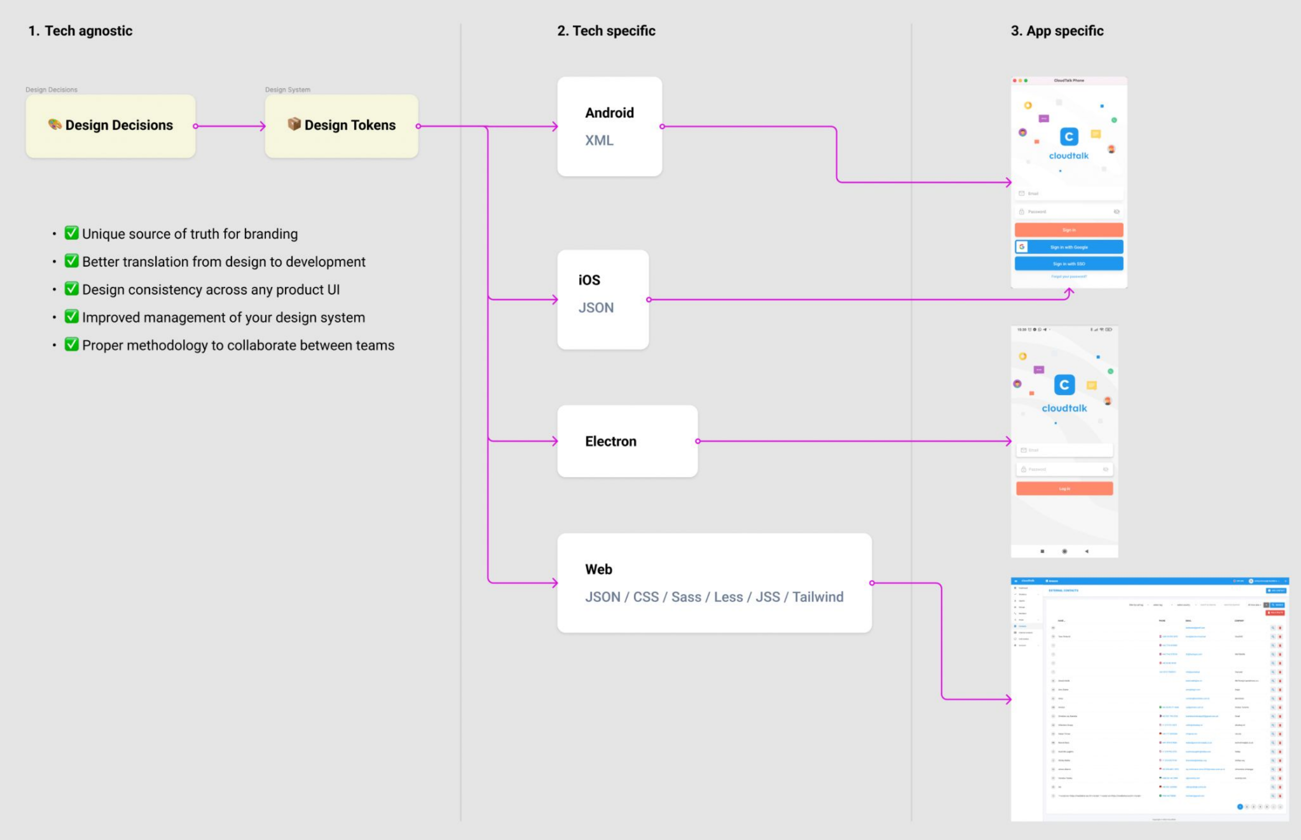
Naming of the variables



Component specific definitions

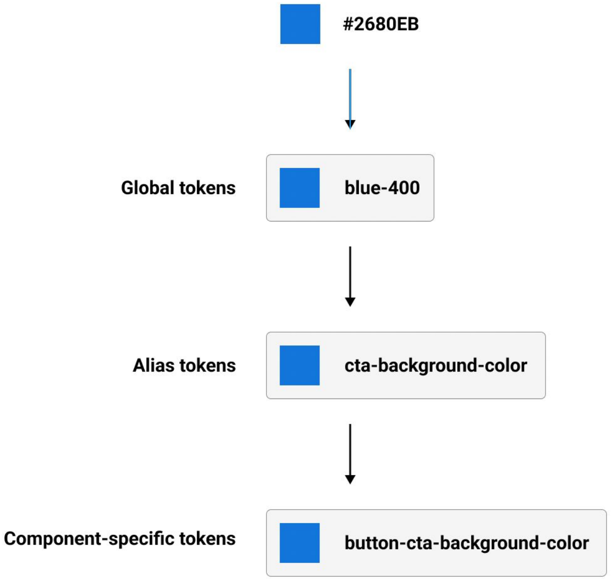


Multi-platform FE system architecture



- ✅ Unique source of truth for branding
- ✅ Better translation from design to development
- ✅ Design consistency across any product UI
- ✅ Improved management of your design system
- ✅ Proper methodology to collaborate between teams

So what are design tokens?



#2680EB

Global tokens — blue-400

Alias tokens — cta-background-color

Component-specific tokens — button-cta-background-color

Global tokens

Global tokens are the primitive values in our design language, represented by context-agnostic names. Our color palette, animation, typography, and dimension values are all recorded as global tokens. These can be directly used, and are inherited by all other token types.

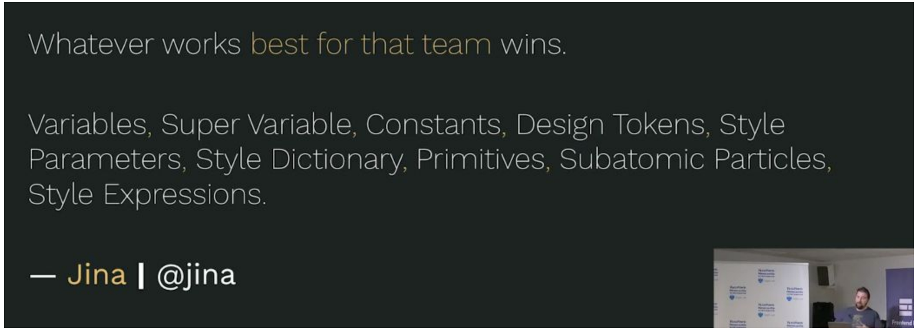
Alias tokens

Alias tokens relate to a specific context or abstraction. Aliases help communicate the intended purpose of a token, and are effective when a value with a single intent will appear in multiple places.

Component-specific tokens

Component-specific tokens are an exhaustive representation of every value associated with a component. They often inherit from alias tokens, but are named in a way that allows engineering teams to be as specific as possible in applying tokens in component development.

Design tokens are just spicy variables.

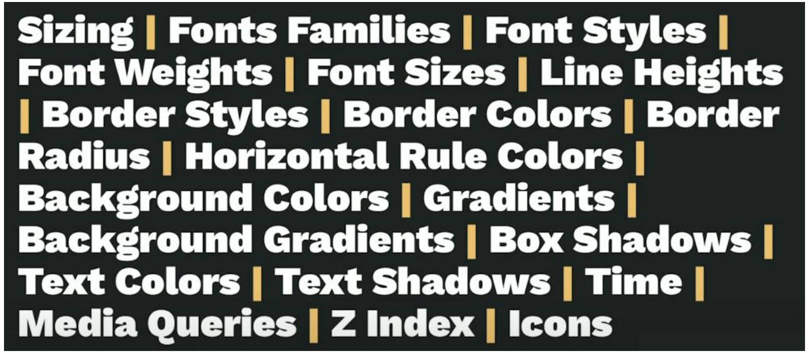


Whatever works best for that team wins.

Variables, Super Variable, Constants, Design Tokens, Style Parameters, Style Dictionary, Primitives, Subatomic Particles, Style Expressions.

— Jina | @jina

Design tokens are just spicy variables.



Sizing | Fonts Families | Font Styles | Font Weights | Font Sizes | Line Heights | Border Styles | Border Colors | Border Radius | Horizontal Rule Colors | Background Colors | Gradients | Background Gradients | Box Shadows | Text Colors | Text Shadows | Time | Media Queries | Z Index | Icons

How to convert JSON to CSS or another languages?

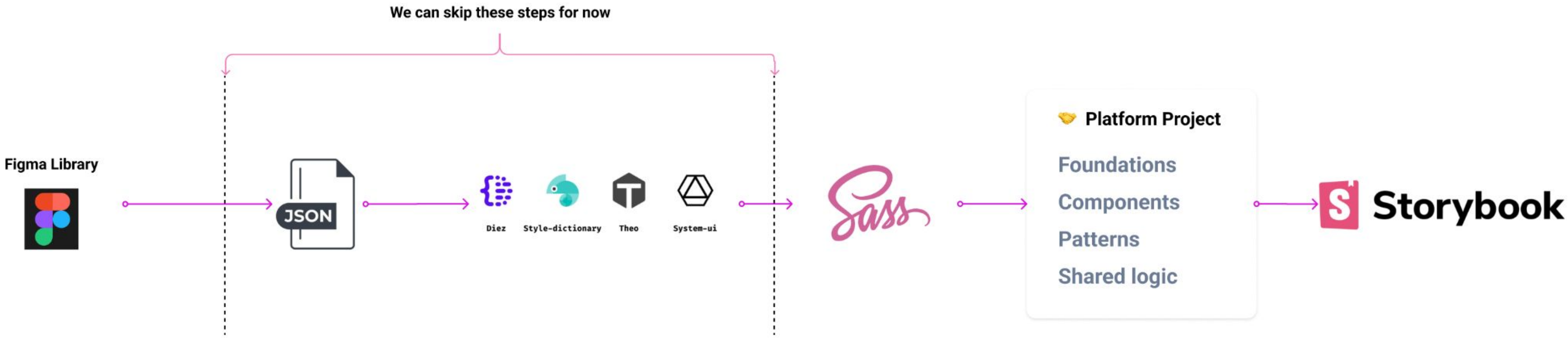
Diez

Style-dictionary

Theo

System-ui

What should we do (IMHO) now?



Steps?

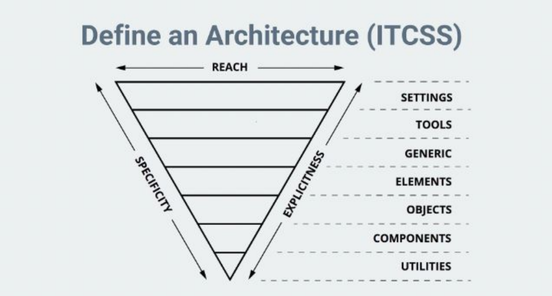
- Find the way how we construct the Front-End structure
  - Monorepo? Multi-repo? Monolit? Npm packages?
- Select good CSS approach
- Move all components into one place
- Create Storybook - if you agree that it is useful

Great design and user experience lives in the details.

Thanks!

Some topics for next meeting?

And why is good consider not using this framework :)


Define an Architecture (ITCSS)
REACH
SPECIFICITY
EXPLICITNESS
SETTINGS
TOOLS
GENERIC
ELEMENTS
OBJECTS
COMPONENTS
UTILITIES