

BUILDING SCALABLE

Design Systems



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@lauravandoore

A person is operating a yellow forklift in a server room. The room is filled with rows of server racks, and the lighting is dim, creating a professional and technical atmosphere. The text is overlaid in the center of the image.

Designing & building
software is complex.

Why is design struggling to scale?

- **Growing design teams**

Organisations are investing more in design

- **Infinitely more complex design problems**

Software needs to become more sophisticated to keep up with the demands & desires of our users.

- **Distributed teams**

Agile delivery models encouraging cross functional teams.

**Maintaining design debt is starting
to feel like this:**





**“A fractured process makes for
a fractured user experience.”**

- NATE FORTIN



So how can we **design the process**
in order to deliver **better products &**
user experience?



Answer:
A DESIGN SYSTEM

Design System (noun)

[de-zine sis-tuhm]

A collection of reusable components, governed by clear standards, that can be assembled together to build any number of applications or products.

Design System

- ▶ Design Principles
- ▶ Live Code & Implementation info
- ▶ UX & Accessibility Metrics
- ▶ Animation Timing & Easing
- ▶ Voice & tone Guidelines
- ▶ Style Guide & Design Resources
- ▶ UX Personas

Style Guide

- ▶ Typography
- ▶ Colour Palettes
- ▶ Component Styling
- ▶ Grids
- ▶ Static Code Samples

An aerial, high-angle view of a dense urban skyline, likely New York City, featuring numerous skyscrapers and buildings. The image is in grayscale and has a semi-transparent dark overlay. The title 'Benefits of Design Systems' is centered in a large, white, serif font.

Benefits of Design Systems



- ▶ **Consistency**

Consistency and clarity in the user interface

- ▶ **Communication**

Speaking the same language

- ▶ **Efficiency**

Increased ability to roll out new features and software products



- ▶ **Maintainability**

Both in code base, testing and design assets

- ▶ **Scalability**

A solid architecture you can expand into new products

- ▶ **Baked in Accessibility**

- ▶ **Facilitates speedy onboarding for new designers and engineers**



So ...

How popular are Design Systems?

According to InVision

86%

of Product Design teams have a Design System

An aerial view of a city skyline, likely New York City, with the Empire State Building prominent in the center. The image is dark and serves as a background for the text. A teal rectangular box is positioned in the upper middle section, containing the text 'BEST IN CLASS' in a bold, dark teal font.

BEST IN CLASS

A quick look at the best design systems
being used around the world.

Atlassian Design



Design, develop, and deliver

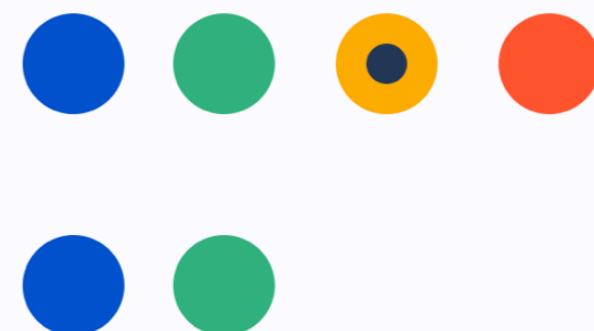
Use Atlassian's end-to-end design language to create straightforward and beautiful experiences.

B Brand

Foundations, including personality, writing style, color, and type.

B A double rainbow!

We use color in meaningful ways in all expressions of our brand.



B Atlassian personality

A reflection of our culture, values, and promise to customers - our personality is on display in everything we build.

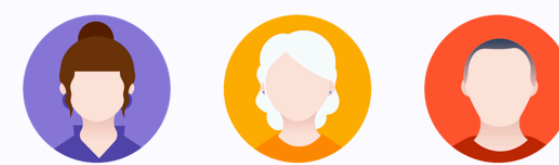
M Marketing

How color, type, and illustration are used in marketing.

M Atlassian logos



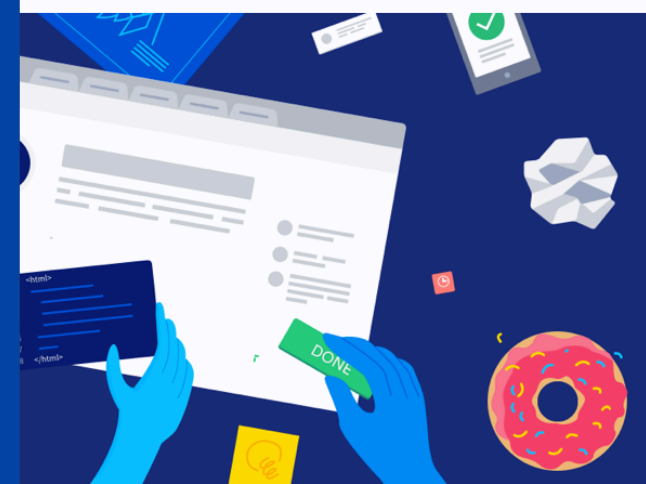
M Our illustrations



P Product

Foundations, components, and patterns for building applications.

Why prototyping is a must



A Atlassian

The tools to build experiences in the Atlassian Design style.

Server products



Atlassian Design

Marketing

Product

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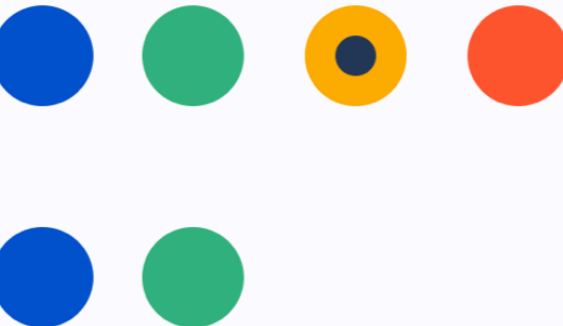
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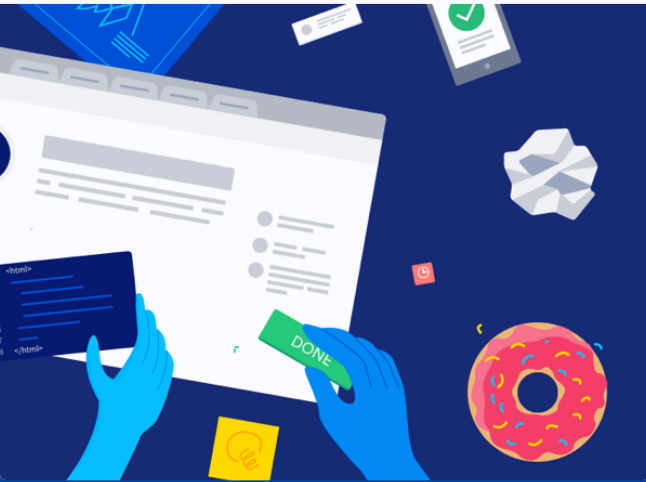
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Brand



Atlassian Design



P Product



Overview



What's new?

FOUNDATIONS

Accessibility

Color

Grid

Iconography

Typography

Writing style

COMPONENTS

Avatars

Badges

Banners

Breadcrumbs

Buttons

Checkboxes

Date/time picker

Drop-down menu

Flag messages

Inline dialog

Inline message

Logos in product

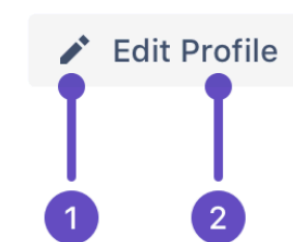
Lozenges



Buttons

API docs

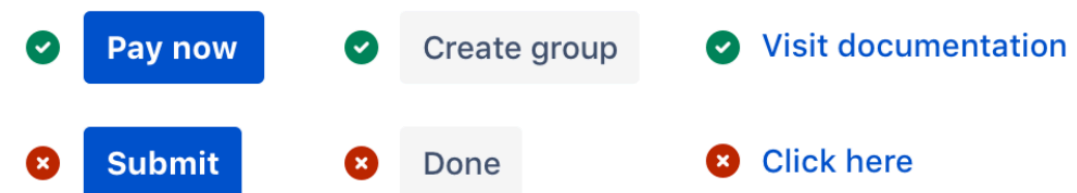
Use buttons to trigger actions and links. Buttons can contain a combination of a clear label and an icon while links are always text.



1. **Icon:** Use an icon to convey more meaning.
2. **Label:** Text that indicates the result of selecting the button.

Writing labels

Button labels are sentence case and are as short as possible, while clearly explaining what happens when the button is activated.



Button order

Buttons are sorted by importance from left to right.



The only exception to the rule is when buttons are used to move through a sequence of screens (e.g. getting started guides). In those cases, the "Back" default button would be on the left to visually support navigation.

Shopify Polaris

Polaris

Our design system helps us work together to build a great experience for all of Shopify's merchants.

Guides

Check out these practical guides to help you understand how to design for the Shopify platform using Polaris.

[Guiding principles](#)

[Crafting the Shopify admin](#)



Salesforce Lightning Design



LIGHTNING DESIGN SYSTEM

Create the world's best enterprise app experiences.

GET STARTED

Current release: [Summer '18 \(SLDS 2.6.1\)](#) | [Archives](#)

[Guidelines](#)

[Accessibility](#)

[Component Blueprints](#)

[Utilities](#)

[Design Tokens](#)

[Icons](#)

[Help & Support](#)



IBM Carbon

✕

Carbon Design System

Getting Started ▾

What's New

Guidelines ▾

Style ▾

Components ▾

Data Visualization ▾

Utilities ▾

Component Status

Resources

CARBON DESIGN SYSTEM

[Explore the system](#)

- [Design Kit](#) →
- [Vanilla Repo](#) →
- [React Repo](#) →



Getting Started

Onboarding for designers and developers who are using Carbon for the first time.



Style

Guidance on usage and application for basic design elements.



Components

A library of all Carbon components, comprised of code, usage and style guidelines.



Resources

A helpful list of tools, links and downloads that will improve a Carbon user's workflow.

Meetup Swarm



[Design](#) [Content](#) [Brand](#) [Components](#)

Designing for social transformation

The Swarm Design System is a living ecosystem to help our teams craft online experiences to bring people together offline

[Get started](#)



Design

Guidelines for product design at Meetup. Includes our design team's processes and principles as well as visual design details

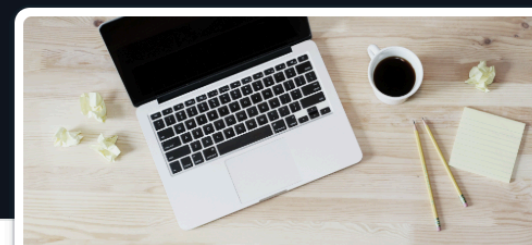
[Start designing](#)



Brand

Information about the Meetup brand including our mission, voice and tone, and brand assets.

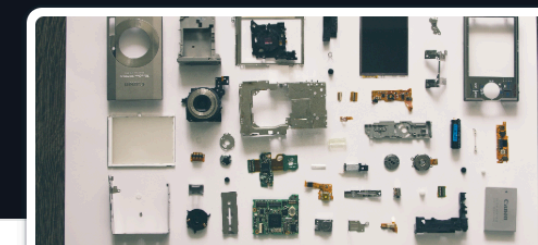
[Learn more](#)



Content

Guidelines on the tone of voice to personify the brand and personality of Meetup, while keeping the product easy to navigate and understand.

[Review guidelines](#)



Web Components

A set of UI components ready for use by designers and engineers to quickly ship new products and features.

[Get components](#)

Adele

Design System Repository

Adele by 



Adele

The repository of publicly available design systems and pattern libraries

[Start Exploring Systems](#)

[Why Adele?](#)

Filter categories: See More: [<>](#)

Company	A/Z	System	A/Z	Repository	A/Z	Code Depth	A/Z	Components	A/Z	JS Library/Framework	A/Z	Typescript	A/Z	Web Compon
<input type="text" value="Type to filter..."/>		<input type="text" value="Type to filter..."/>		<input type="text" value="Type to filter..."/>		<input type="text" value="Type to filter..."/>		All		<input type="text" value="Type to filter..."/>		All		All

An aerial view of a city skyline, likely New York City, with the Empire State Building prominent in the center. The image is dark and serves as a background for the text. A teal rectangular banner is positioned in the upper middle section.

A QUICK PREVIEW

Design Systems at Fathom

Foundations

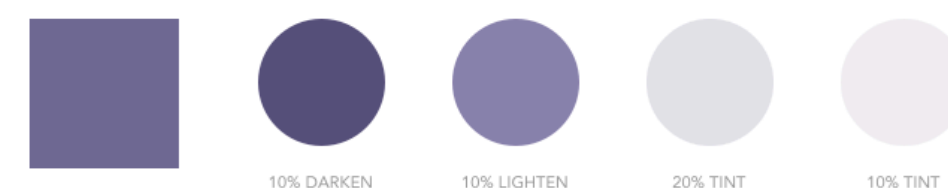
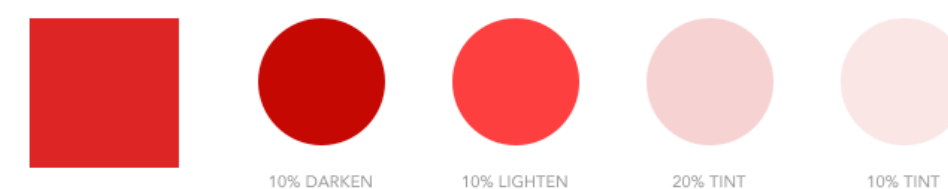
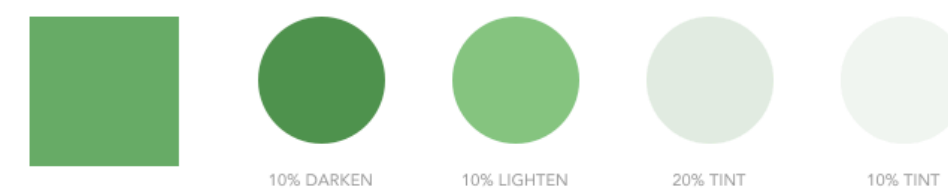
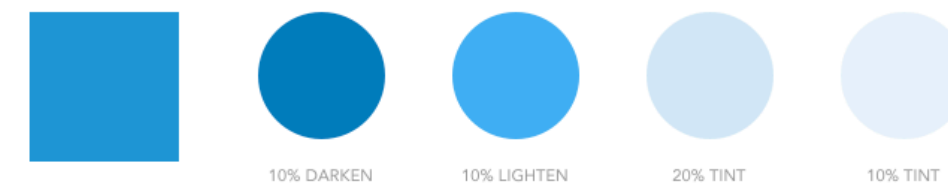
The core baselines of the Fathom style system. Here you'll find everything you need to configure the foundation of the Fathom Design System across the application.

Colour Palette

CORE PALETTE



COLOUR VARIANTS



Foundations

The core baselines of the Fathom style system. Here you'll find every configuration to help you configure the foundation of the Fathom Design System across the app.

Typography

HEADING 1 .JUMBO
Avenir Heavy • 46px

H1.jumbo

Monthly Performance Report

HEADING 1
Avenir Medium • 38px

#000000

Revenue Analysis & Profitability

HEADING 2
Avenir Medium • 28px

#000000

Overview and Actions

HEADING 3
Avenir Medium • 20px

#8D8D8D

Last 6 months vs budget

HEADING 3 .LIGHT
Avenir Light • 20px

#8D8D8D

Profitability & other insights

HEADING 3 .UPPER
Avenir Heavy • 14px

#8D8D8D

TITLE STYLE FOR KEY NUMBERS

BODY COPY
Avenir Next Regular • 17px
Line Height - 24px

Add comments, observations, recommendations or any other text to tell a story or call out important information. Add comments, observations, recommendations or any other text to tell a story or call out important information.

KEY NUMBERS .LARGE

Avenir Medium • 40px

\$394,242

#333333

KEY NUMBERS .MEDIUM

Avenir Medium • 30px

\$394,242

#333333

KEY NUMBERS .SMALL

Avenir Medium • 25px

\$394,242

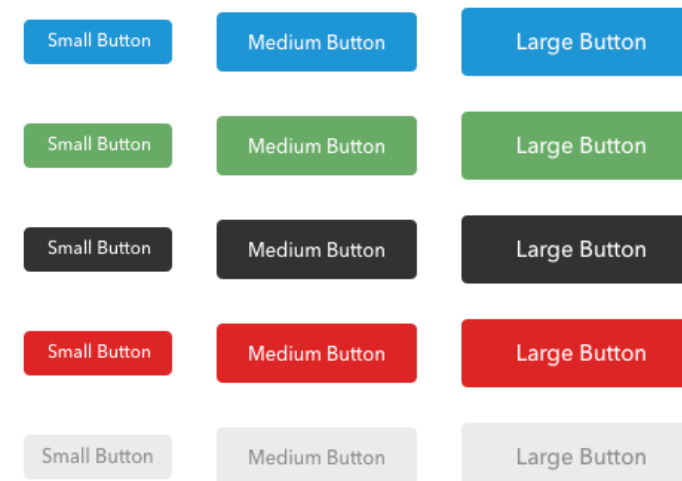
#333333

Components

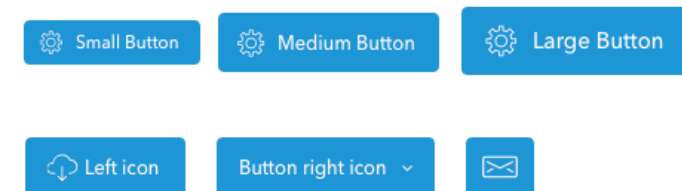
The core baselines of the Fathom style system. Here you'll find everything you need to configure the foundation of the Fathom Design System across the application.

Buttons

BUTTON SIZES



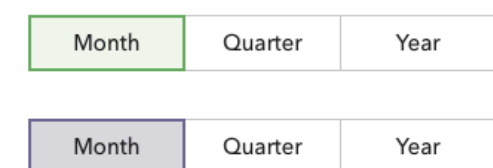
ICON BUTTONS



VARIATIONS



BUTTON GROUPS



Inputs & Forms



Overrides

icons/cloud-download

icons/cloud-download

color

Colours/White

Icon (Right)

Icon/Arrow (Dropdown)

Text

.../Bold/Left Aligned

Value

Download

Color

Colours/Blue

None

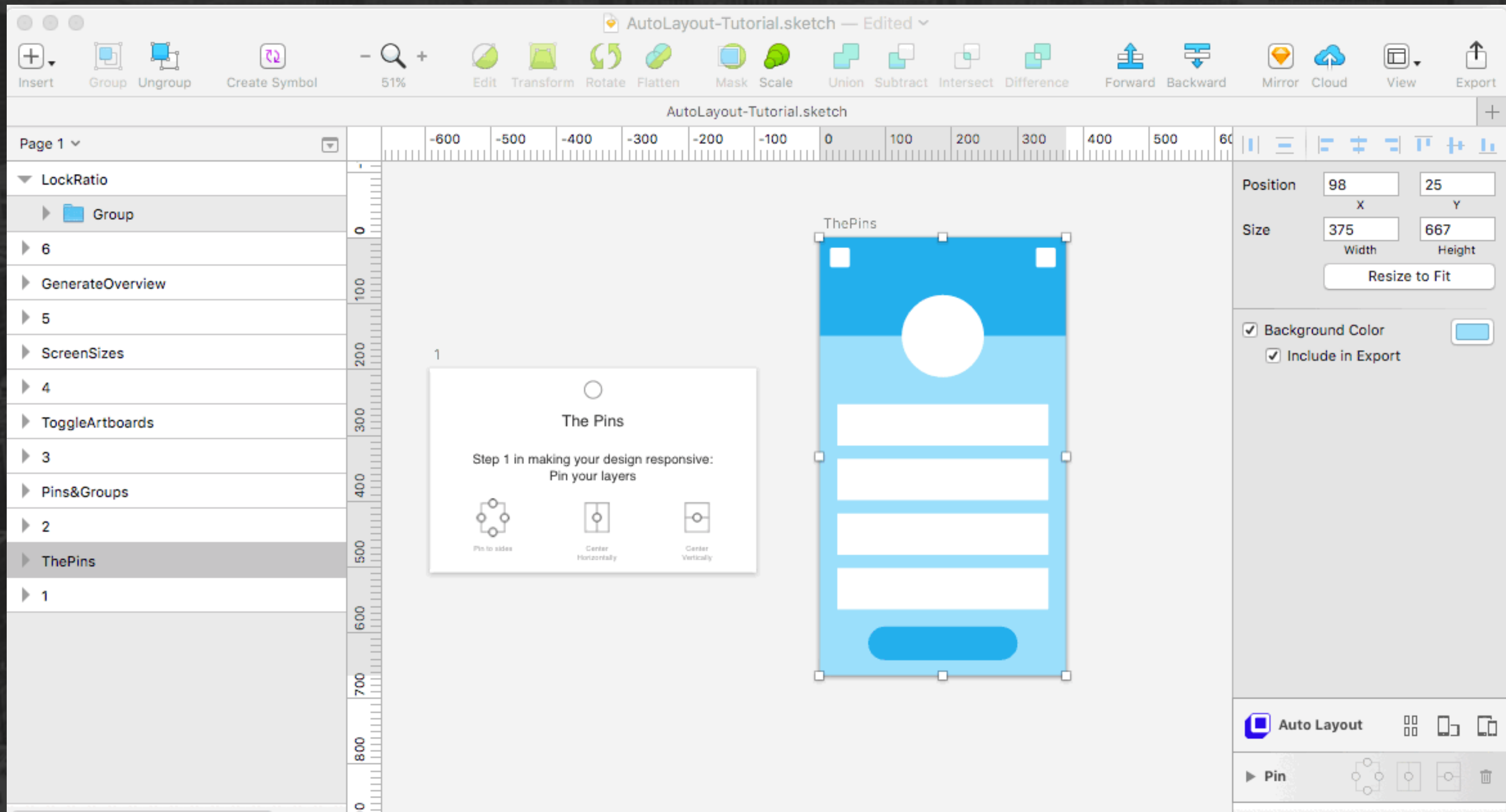
- Colours/Blue
- Colours/Dark
- Colours/Green
- Colours/Grey-Darkest
- Colours/Grey-Darkest
- Colours/Grey-Light
- Colours/Grey-Lightest
- Colours/Grey-Mid

PLUGINS & WORKFLOWS

Sketch Essentials

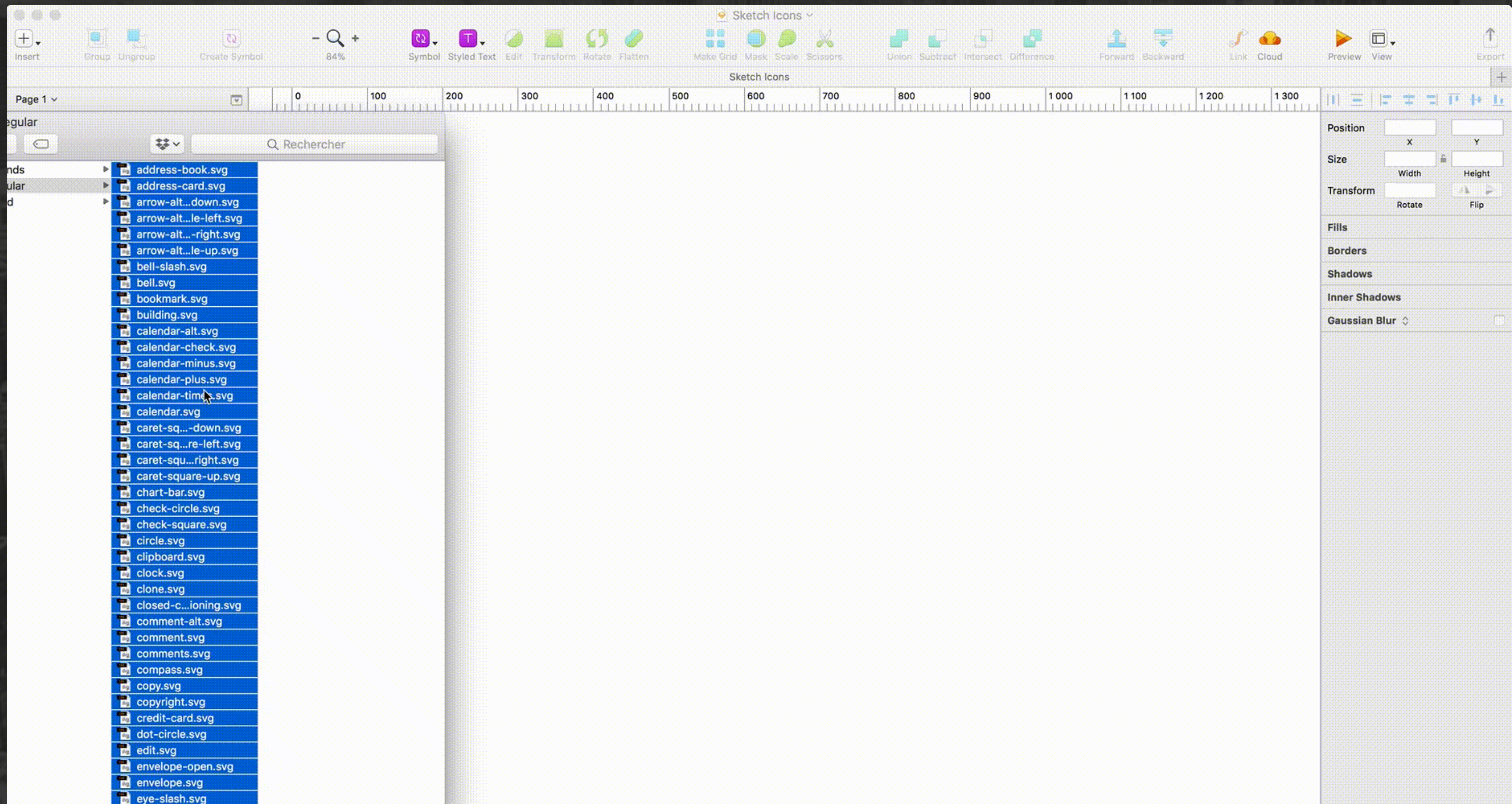
Auto Layout

Responsive Design in Sketch



Sketch Icons

Use your icon font seamlessly in Sketch



Style Libraries

Push & Pull layer styles from your Design System




Sketch Style Libraries

A lightweight plugin that lets you sync layer & text styles with a Sketch Library, so your project is always in sync.

- 👉 Keep your whole design system in your library, and not just the symbols
- 👉 No export/import via separate "style files" or another cloud service
- 👉 Also merges duplicate styles, and deletes the ones you don't want anymore

Usage

1. Install plugin
2. Plugins ->  Sync styles with library -> Fetch from... or Push to...
3. Pick a library
4. Profit

Installing



Toybox Roller

Find & fix design inconsistencies in Sketch

The image shows the Toybox Roller interface, which is used to find and fix design inconsistencies in Sketch. The interface is divided into two main sections: a results list on the left and a detailed view on the right.

Results List (Left Panel):

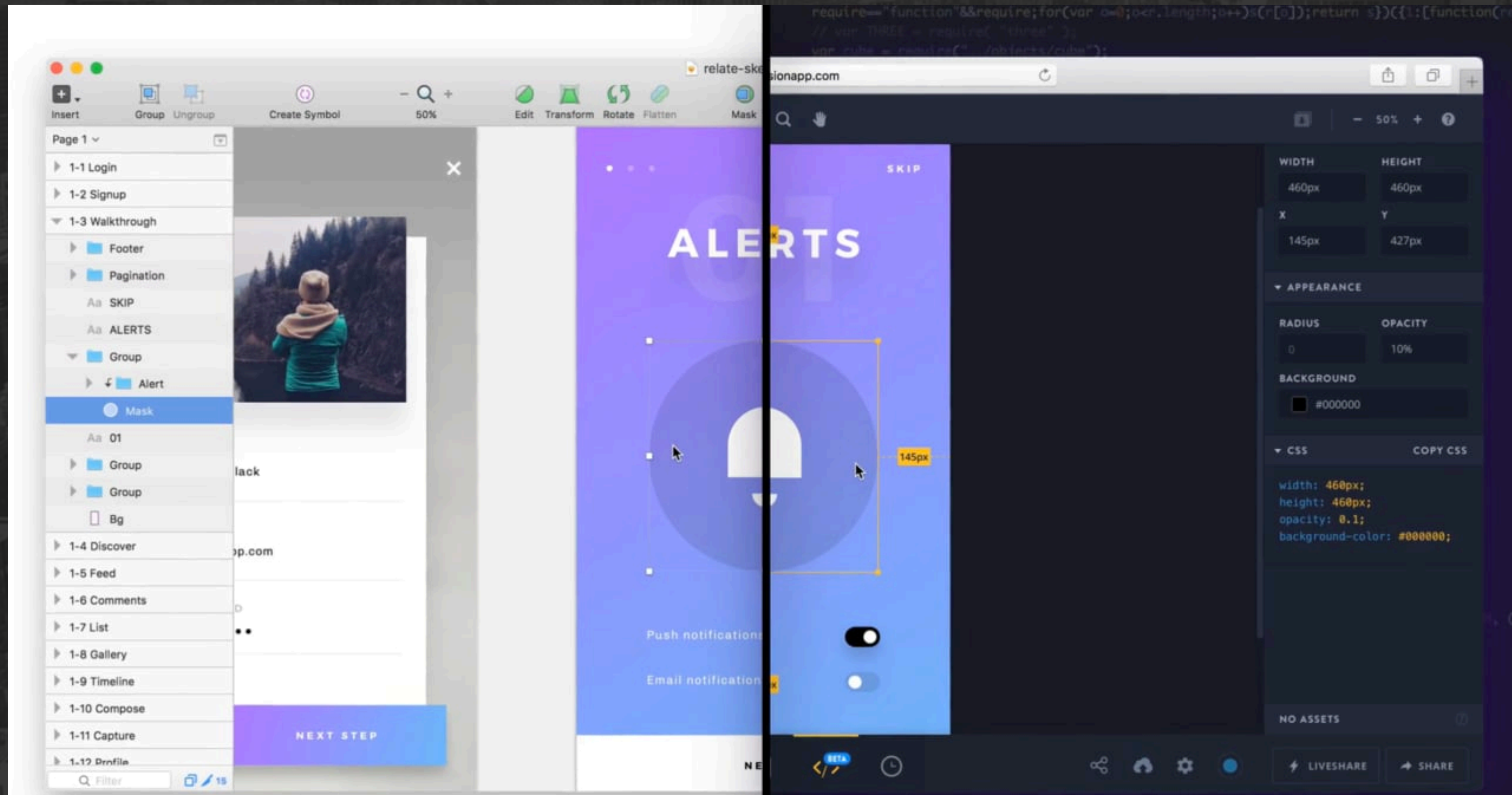
- OVERVIEW** | **STATS** | **Settings**
- Dropdown: All Categories
- Search: Search items...
- 8 RESULTS**
- ERROR** (10 Occurrences): Misuse of typeface (Aa)
- WARNING** (8 Occurrences): Rare use of border color (Blue square)
- WARNING** (8 Occurrences): Rare use of border color (Teal square)
- ERROR** (10 Occurrences): Misuse of line-height (Aa)

Detailed View (Right Panel):

- Back arrow
- Font icon: Aa
- Navigation: 1 of 5
- PROPERTIES**
- Font-size: 16px;
- Font-family: font-awesome;
- Font-weight: Regular;
- Color: #FB651E;
- line-height: 18px;
- SUGGESTIONS**
- WARNING**: Font-size 16px is rarely used for font-awesome (Used 0.02% of the time).
- Did you mean to use:

InVision Inspect

For getting your Design System from Sketch to code





Sketch Library \neq Design System



A Sketch Library is just one small part
of a successful Design System.



**Design Systems
are a team sport**



The best Design Systems
are a **shared asset** between
design & development.

An aerial, high-angle view of a dense city skyline, likely New York City, with the Empire State Building prominently visible in the center. The image is in grayscale and has a dark, muted tone. The text 'Getting started' is overlaid in a white, elegant serif font, centered horizontally and slightly above the vertical center.

Getting started

@lauravandoore



**Building a Design System is a
marathon, not a sprint.**



**EXPECTATION
VS**



REALITY

An aerial, high-angle view of a dense urban skyline, likely New York City, featuring numerous skyscrapers and buildings. The image is in grayscale and has a dark, semi-transparent overlay. The text "Don't think of it like a project." is centered horizontally across the middle of the image in a large, bold, white sans-serif font.

Don't think of it like a project.

An aerial, high-angle view of a dense city skyline, likely New York City, with numerous skyscrapers and buildings. The image is in grayscale and has a dark, semi-transparent overlay. The text 'Approach it like a product.' is written in a large, white, sans-serif font across the upper middle of the image.

Approach it like a product.

**With a roadmap, objectives & many
different groups of users.**

1

Inventory

Take stock of where you are.

It might look something like this ...



Find patterns & create order out of the chaos ...





2

Structure

Define a structure for your Design System

Define a new structure

Atoms & Molecules?



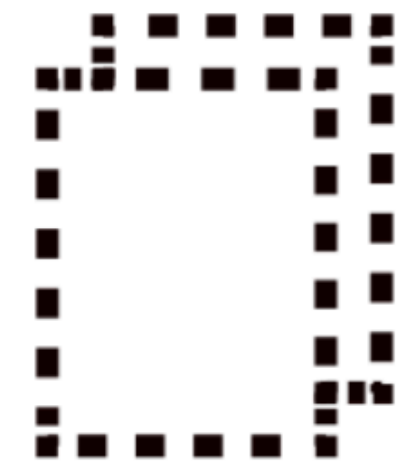
atoms



molecules



organisms



templates



pages

Define a new structure

GE Predix System



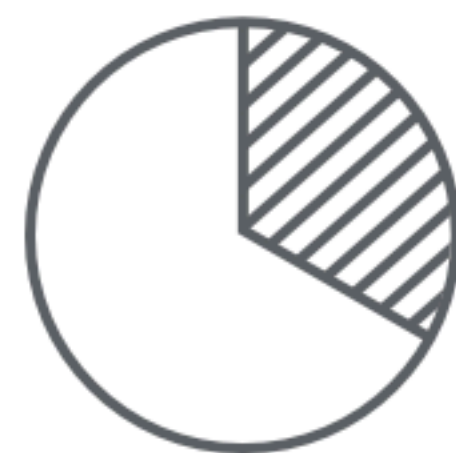
APPLICATIONS



FEATURES



TEMPLATES



COMPONENTS



BASICS



PRINCIPLES



3

Standardise

Also known as “Getting to one”

ROLLING OUT YOUR OWN

Design System



#1

Chip Away

#1 Chip Away

The design system is something that is only worked on in spare time, or when designers/engineers are between projects.



Cost



Risk



Speed



Quality

#2

Hibernation

#2 Hibernation

Getting a core team of designers & engineers working on the Design System full-time. Possibly allows the time for designers/engineers to come up with the best implementation.



Cost



Risk



Speed



Quality

#3

Piggyback

#2

Piggyback

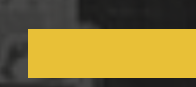
Plan to get the bulk of the Design System implemented as a part of another project. Balances out the cost better, as you see the returns immediately.



Cost



Risk



Speed



Quality

Rollout strategies

1

Chip Away

2

Hibernation

3

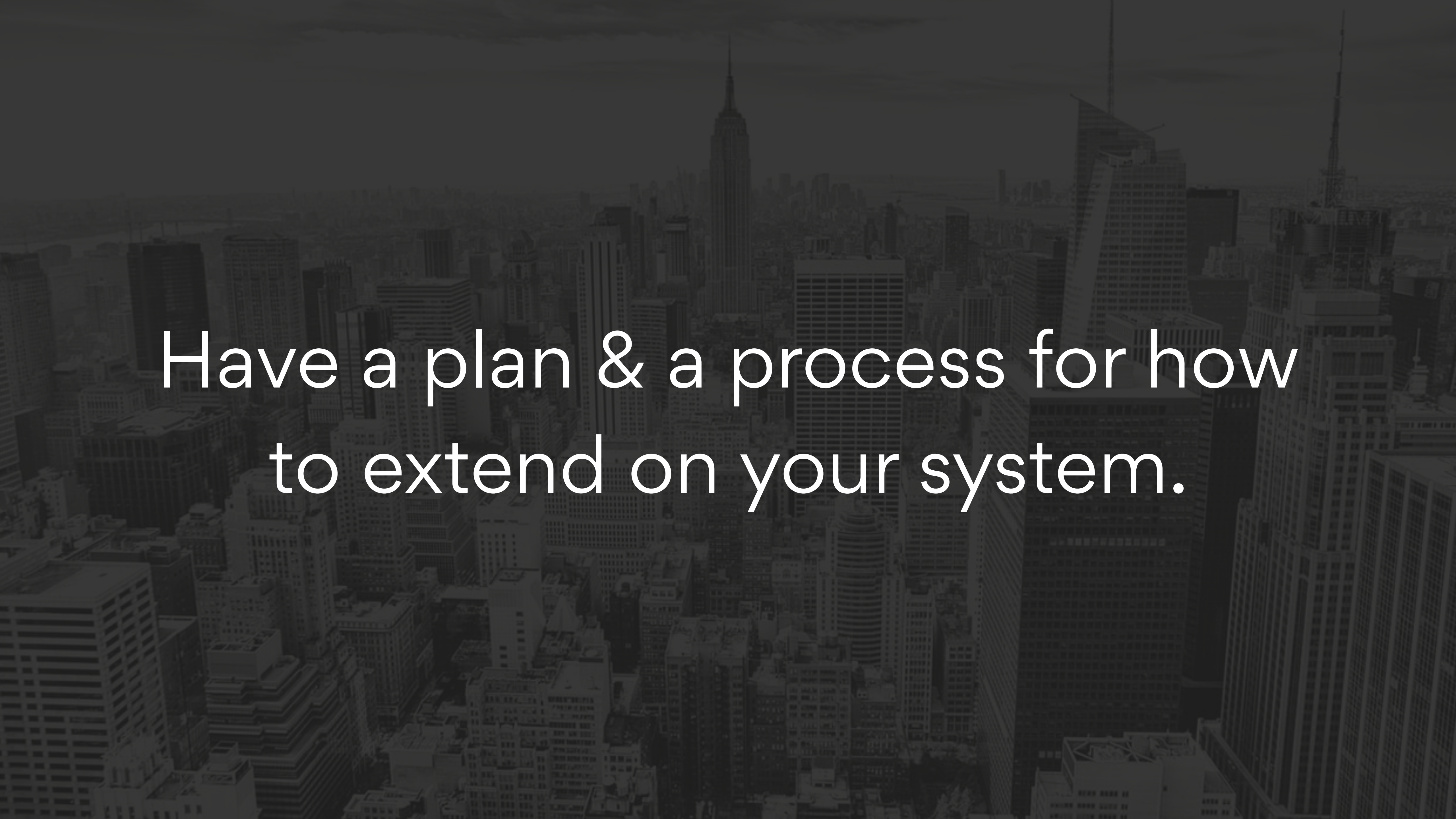
Piggyback

EXTENDING & MAINTAINING

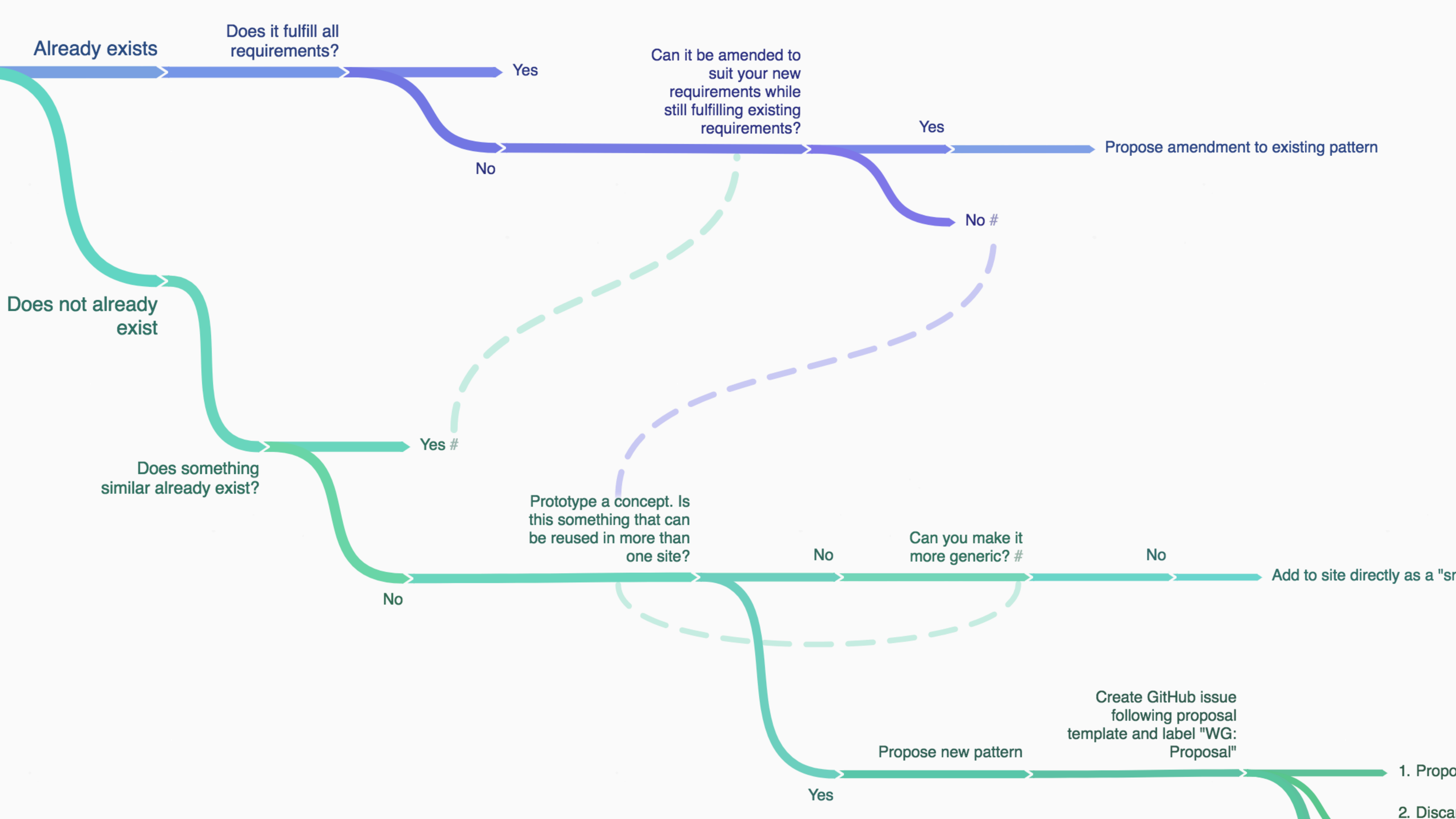
Design Systems



Just like Design, a Design System
is **never finished.**



Have a plan & a process for how
to extend on your system.





Don't forget to take stock

@lauravandoore

Thanks



Laura Van Doore
@lauravandoore