

# Inside Design Systems

## From Vision to Implementation



# Lukas Weiss

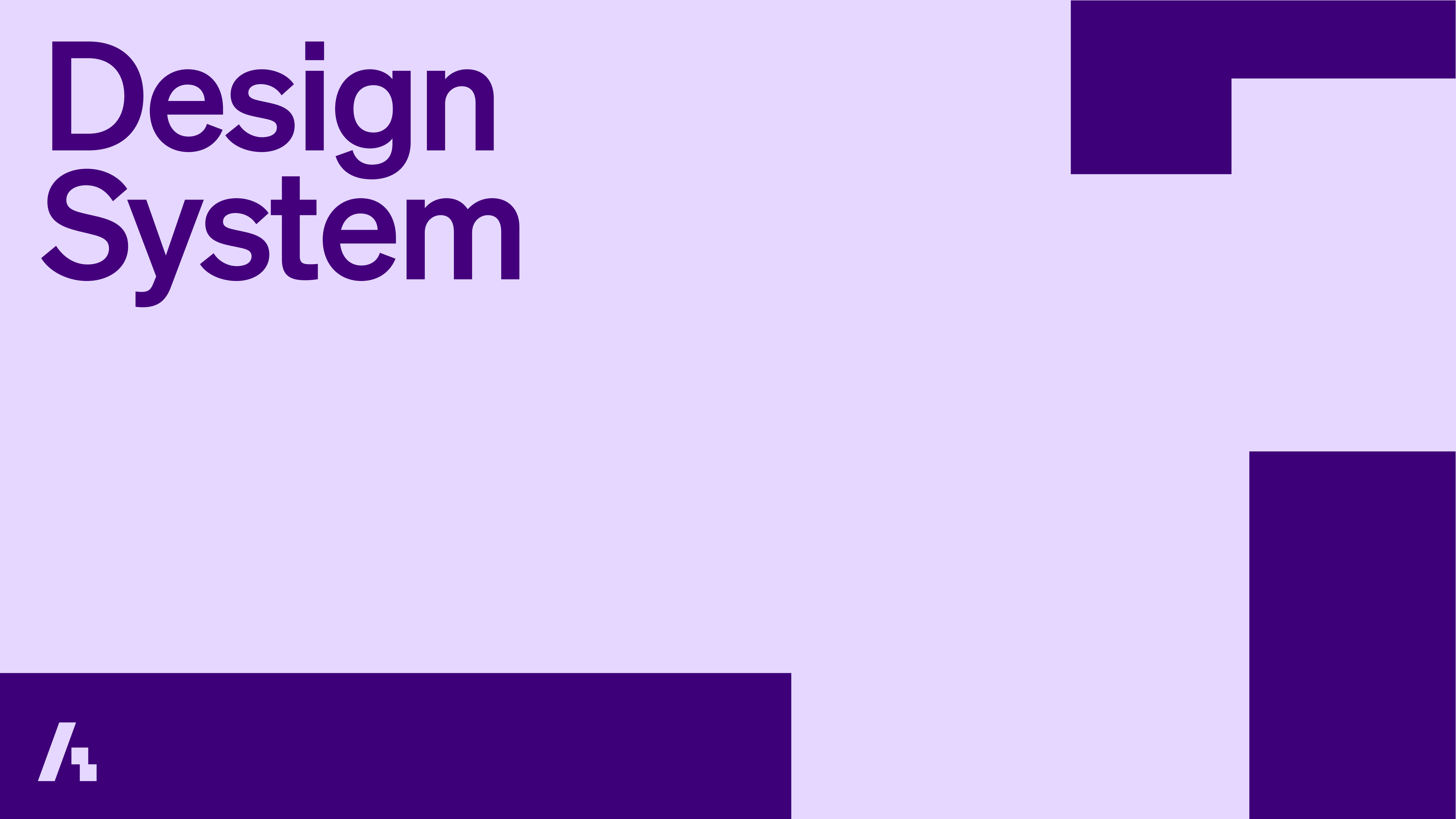
## Frontend Developer

AboutBits  
since 2022

Focus  
Web Applications  
Design Systems  
Research

Socials  
[in linkedin.com/in/lukasvice](https://www.linkedin.com/in/lukasvice)  
[x x.com/lukasvice](https://x.com/lukasvice)





# Design System



# Design System

## Guidelines

|                |               |                   |
|----------------|---------------|-------------------|
| Brand Identity | Accessibility | Design principles |
|----------------|---------------|-------------------|

## Style guides

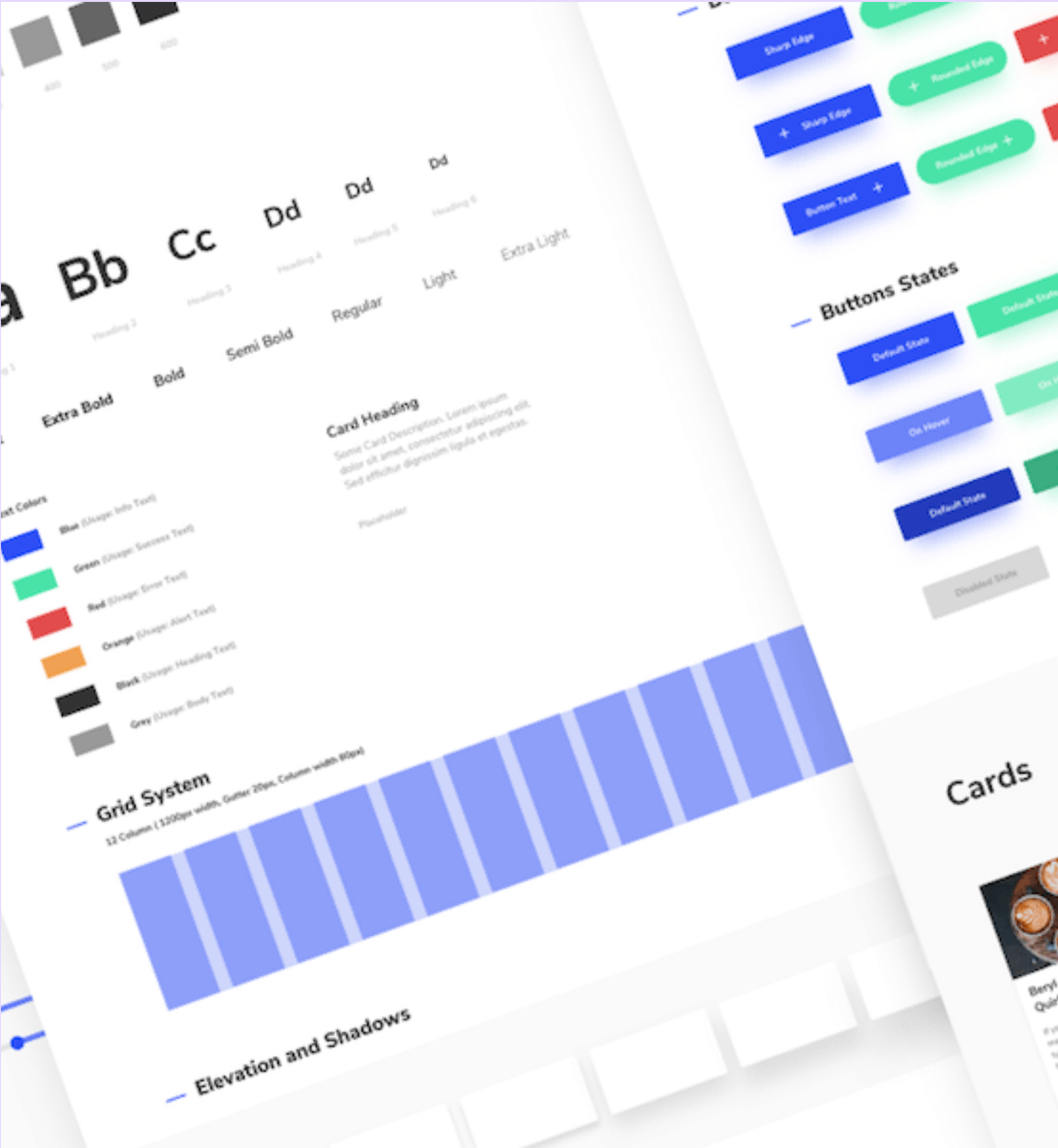
|            |        |         |
|------------|--------|---------|
| Typography | Colors | Spacing |
|------------|--------|---------|

## Patterns

|         |                 |            |
|---------|-----------------|------------|
| Layouts | Form validation | Pagination |
|---------|-----------------|------------|

## UI Components

|        |                |               |
|--------|----------------|---------------|
| Design | Implementation | Documentation |
|--------|----------------|---------------|



# Benefits

UI  
consistency

Faster  
production

Higher  
quality

Best  
practices

Shared  
vocabulary

Future-  
friendly

# Component Library

- Foundations
- Components
- Icons
- Documentation
- Templates
- Recipes

Foundations

Colors: Basics

Neutral

Normally used for backgrounds, borders, texts and tertiary buttons and actions.

White

10

20

30

40

50

60

70

80

90

100

Background

Borders

Light fonts

Body fonts

Dark fonts

Semantic Colors

Success

For success or confirmation messages and actions.

10

20

40

60

80

100

Main

Info

To draw users attention for system messages and status with an informative intention.

10

20

40

60

80

100

Main

Warning

For critical information or warning messages.

10

20

Error

For negative or destructive messages.

10

20

Foundations

Colors: Palette

You need to choose a primary color. This is the predominant color in your interface and is used for most of the UI elements.

You can also have one or multiple secondary colors that complement the primary color. Or you can use the predefined colors from the palette.

Pink

10

20

40

60

80

100

Main

Purple

10

20

40

60

80

100

Main

Indigo

10

20

40

60

80

100

Main

Cyan

10

20

40

60

80

100

Main

Lime

10

20

40

60

80

100

Main

Orange

10

20

40

60

80

100

Main

Foundations

Fonts

|                                | Size | Line Height | Weight    |
|--------------------------------|------|-------------|-----------|
| Titles                         |      |             |           |
| Title 42 Bold                  | 42px | 58px        | Bold      |
| Title 32 Bold                  | 32px | 40px        | Bold      |
| Title 24 Bold                  | 24px | 36px        | Bold      |
| Title 24 Medium                | 24px | 36px        | Medium    |
| Subtitles                      |      |             |           |
| Subtitle 20 Bold               | 20px | 30px        | Bold      |
| Subtitle 20 Medium             | 20px | 30px        | Medium    |
| Subtitle 18 Bold               | 18px | 28px        | Bold      |
| Subtitle 18 Semi Bold          | 18px | 28px        | Semibold  |
| Subtitle 18 Medium             | 18px | 28px        | Medium    |
| Subtitle 18 Regular            | 18px | 28px        | Regular   |
| Body                           |      |             |           |
| Body 16 Semi Bold              | 16px | 24px        | Semi Bold |
| Body 16 Semi Bold Underline    | 16px | 24px        | Semi Bold |
| Body 16 Regular                | 16px | 24px        | Regular   |
| Body 16 Regular Underline      | 16px | 24px        | Regular   |
| Body 14 Semi Bold              | 14px | 22px        | Semi Bold |
| Body 14 Semi Bold Underline    | 14px | 22px        | Semi Bold |
| Body 14 Regular                | 14px | 22px        | Regular   |
| Body 14 Regular Underline      | 14px | 22px        | Regular   |
| Captions                       |      |             |           |
| Caption 12 Semi Bold           | 12px | 18px        | Semi Bold |
| Caption 12 Semi Bold Underline | 12px | 18px        | Semi Bold |
| Caption 12 Regular             | 12px | 18px        | Regular   |

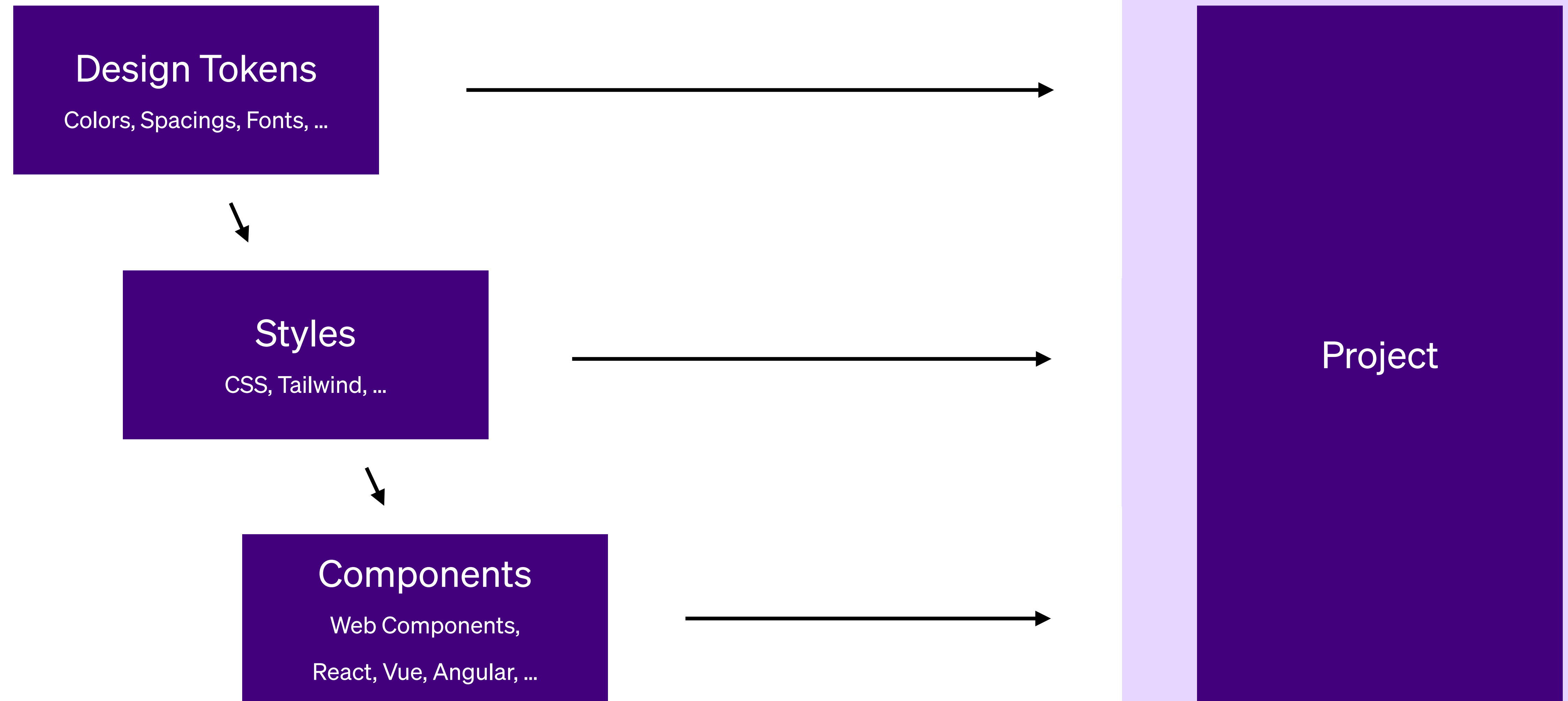
Small

Medium

Large

XLarge

# Technical Structure



# Component Organization



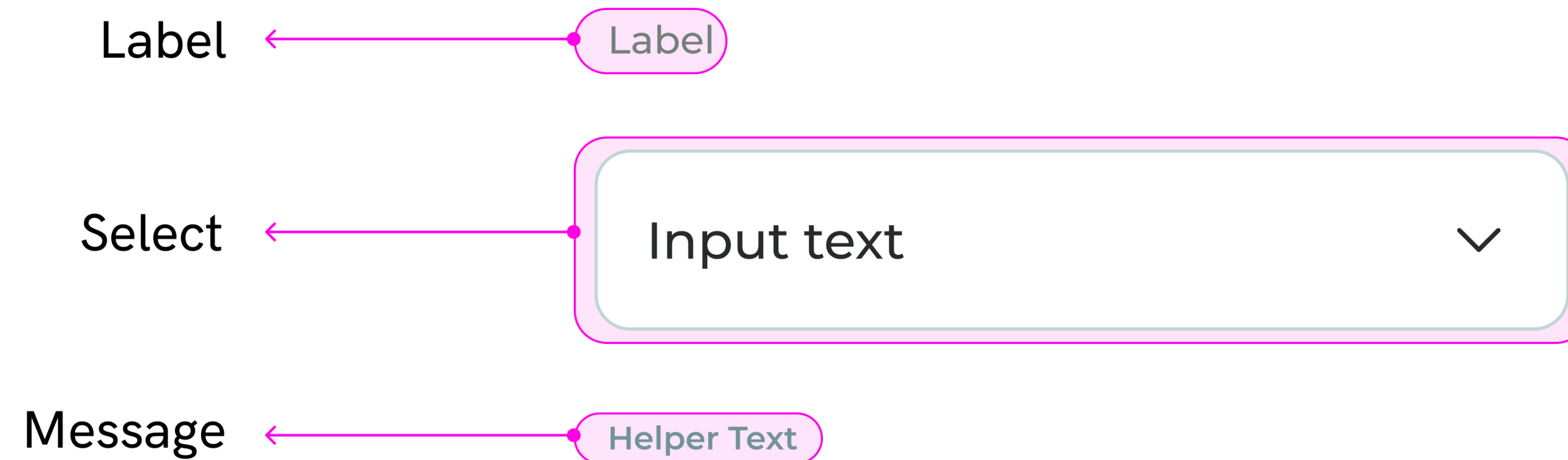
The diagram illustrates the organization of components into three distinct categories, each represented by a dark purple square. These squares are arranged horizontally. The 'Core Components' square is positioned within a larger, light purple rectangular area that also encompasses the 'Convenience Components' square. The 'Primitive Components' square is separate from this group. The text within each square is white and centered.

Primitive  
Components

Core  
Components

Convenience  
Components

# Primitive Components



# Core Components

SelectField



Label

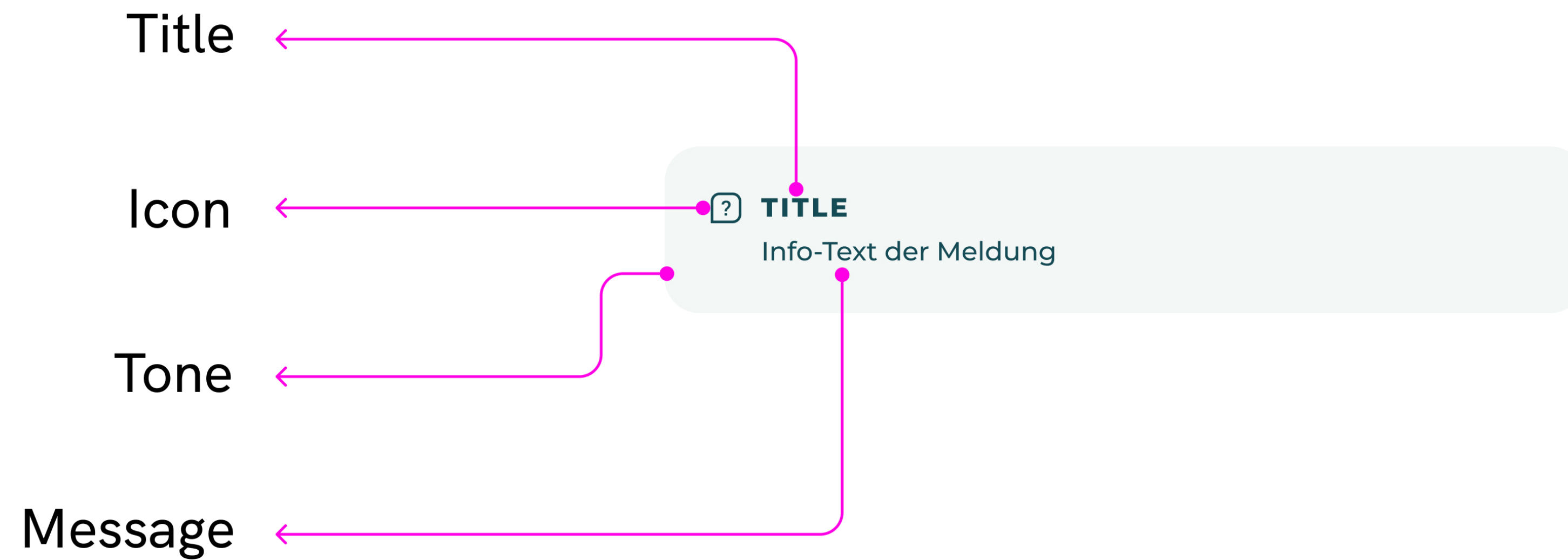
Input text

▼

Helper Text

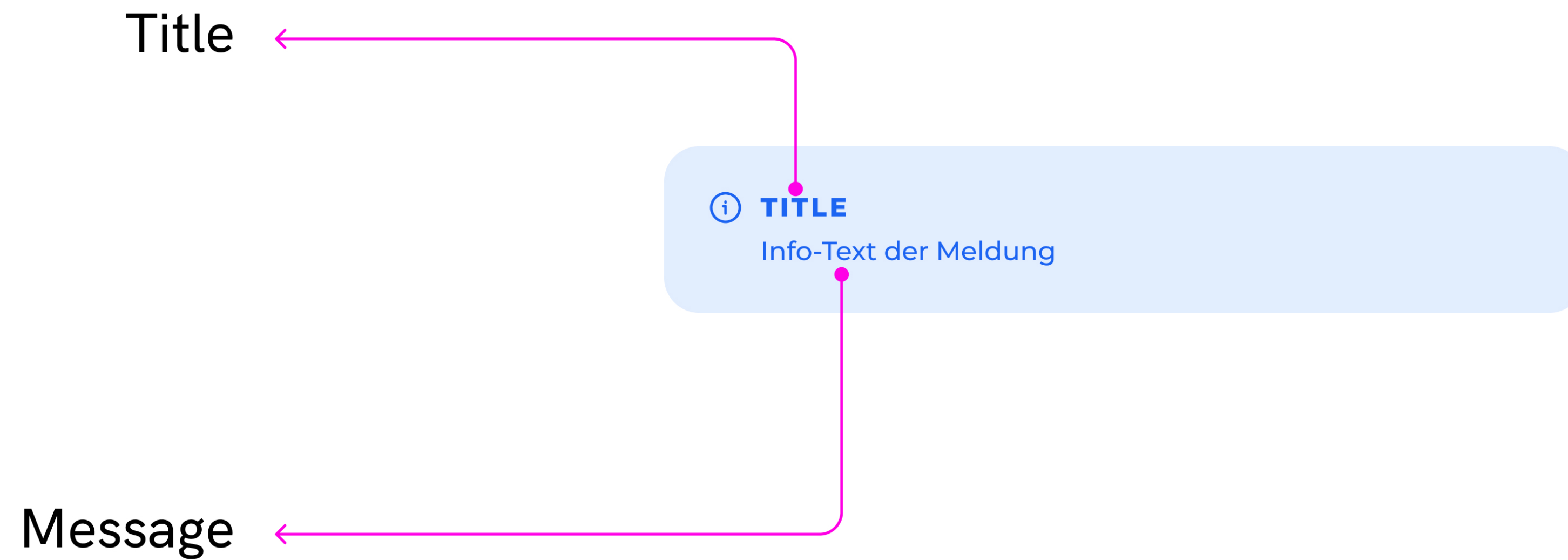
# Convenience Components

## Alert



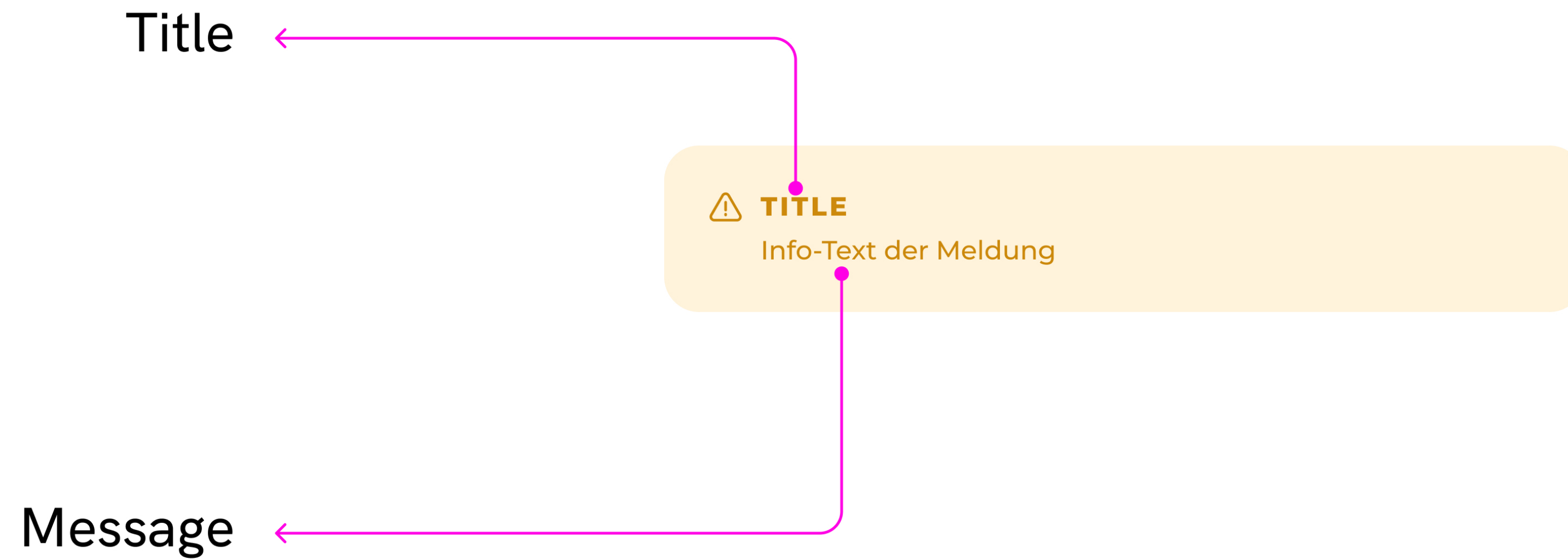
# Convenience Components

## AlertInfo



# Convenience Components

## AlertWarning



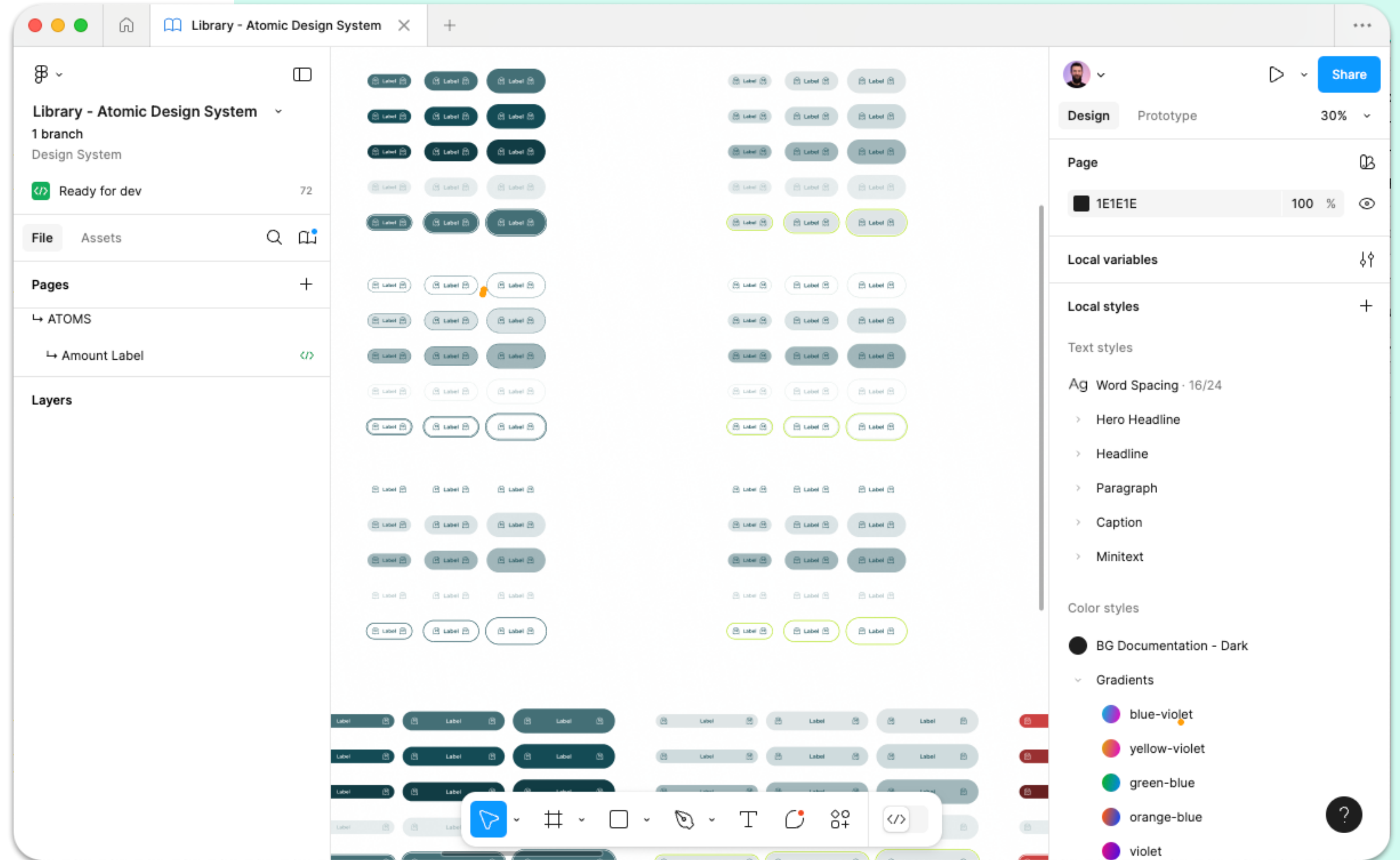
# Tools



# Figma

## Design tool

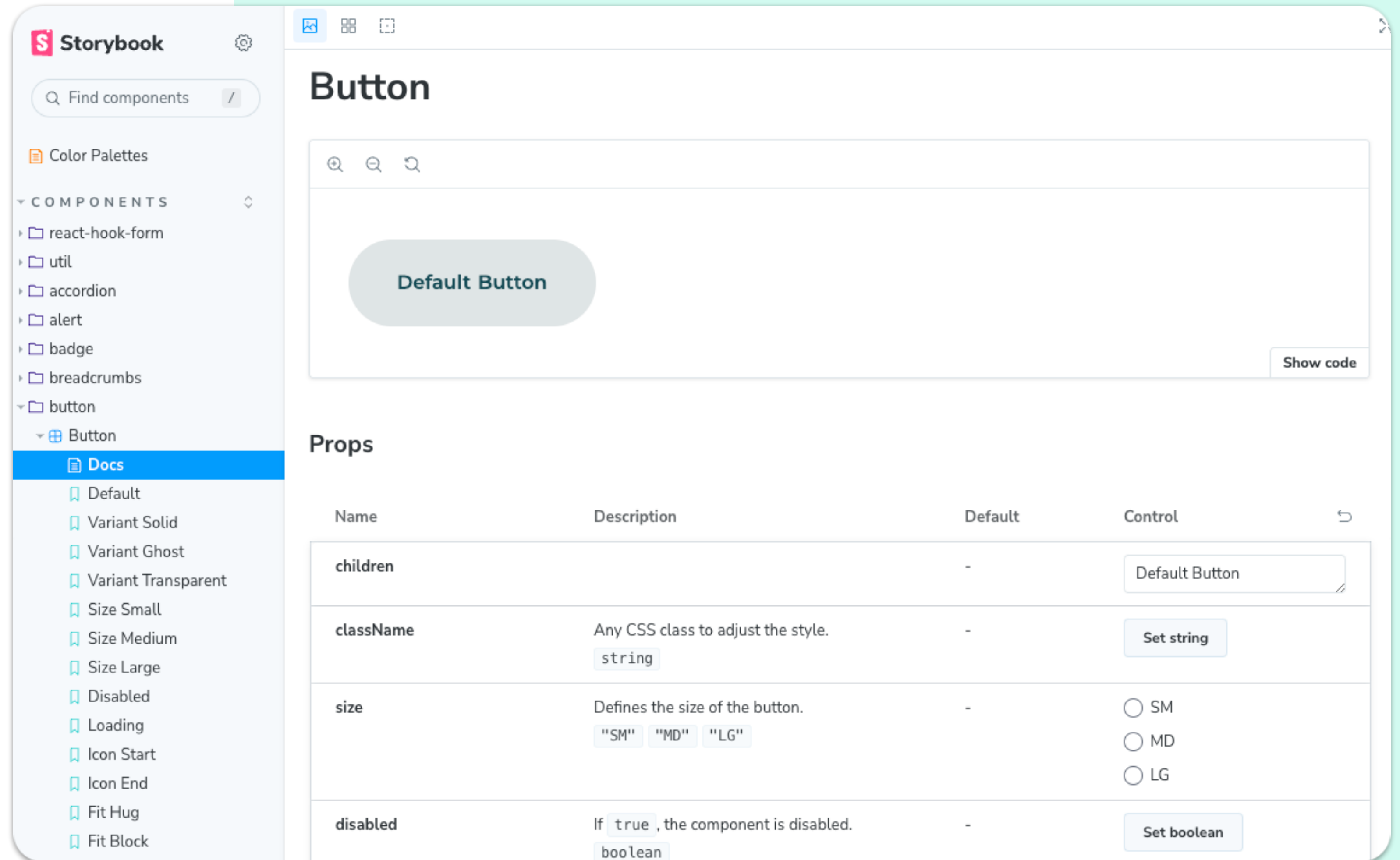
- Vector-based
- Cloud-based
- Real-time collaboration
- Version control
- Build shared libraries



# Storybook

## Web UI Tool

- Web-based, open source
- Component development
- Documentation
- Testing



# Design Systems

## Off The Shelf

### Pros

- Ready-to-use components
- Battle-tested
- Well-documented
- Maintained
- Community

### Cons

- Design may not match
- Hard to adapt to own needs and style
- No control over direction
- Covers a lot you don't need
- Uncertainty about maintenance

# Design Systems

## From Scratch

- Full control over styling
- Full control over functionality
- Only required features
- Opinionated components

### Using Headless libraries

- Unstyled components
- Functionality without styles
- More flexibility
- Only use what you need
- Wrap to provide own API

### Examples

Headless UI, React Aria, Floating UI, Tanstack

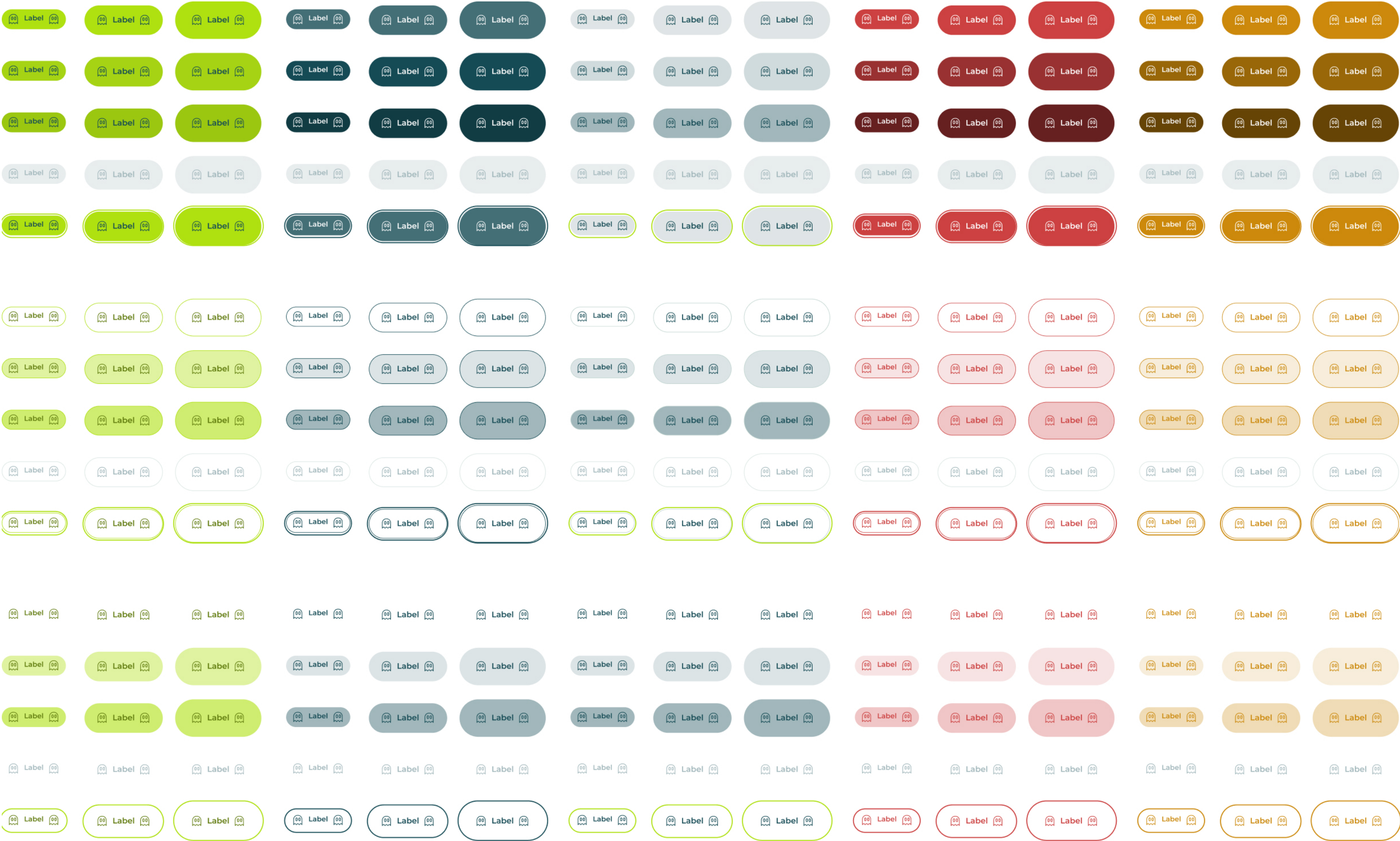
# From Design To Implementation



# Button Design

## Figma

- Base
- States
- Sizes
- Tones
- Variants



# Button

## Implementation

### Storybook

- Web implementation
- Documentation
- Examples

### Button



Show code

| Name      | Description                                                                                                               | Default | Control                                                                                                                             |
|-----------|---------------------------------------------------------------------------------------------------------------------------|---------|-------------------------------------------------------------------------------------------------------------------------------------|
| children  |                                                                                                                           | -       | <div>Default Button</div>                                                                                                           |
| className | Any CSS class to adjust the style.<br>string                                                                              | -       | <div>Set string</div>                                                                                                               |
| size      | Defines the size of the button.<br>"SM" "MD" "LG"                                                                         | -       | <div><div><input type="radio"/> SM</div><div><input type="radio"/> MD</div><div><input type="radio"/> LG</div></div>                |
| disabled  | If true, the component is disabled.<br>boolean                                                                            | -       | <div>Set boolean</div>                                                                                                              |
| tone      | Defines the tone of the button.<br>"PRIMARY" "SECONDARY" "NEUTRAL"<br>"SUCCESS" "WARNING" "CRITICAL" "INFO"<br>"NEGATIVE" | -       | <div>Choose option...<div></div></div>                                                                                              |
| variant   | Defines the variant of the button.<br>"SOLID" "GHOST" "TRANSPARENT"                                                       | -       | <div><div><input type="radio"/> SOLID</div><div><input type="radio"/> GHOST</div><div><input type="radio"/> TRANSPARENT</div></div> |

# Button Usage

Logout Button ↗ ⋮

◇ Component instance

📖 Library - Atomic Design System

🕒 Created 3 months ago

● Compare changes ▾



|           |                       |
|-----------|-----------------------|
| Type      | ◆ Solid (default)     |
| Tone      | ◆ Primary             |
| Size      | ◆ small               |
| State     | ◆ Default             |
| Block     | 👁 False               |
| Ico-left  | 👁 False               |
| Label     | T Speichern & Beenden |
| Ico-right | 👁 False               |



```
<Button
  variant={ButtonVariant.Solid}
  tone={ButtonTone.Primary}
  size={ButtonSize.Sm}
>
  Speichern & Beenden
</Button>
```

# Build Better User Interfaces Using Design Systems

