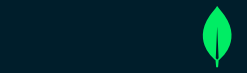
March 2024

LeafyGreen UI

How MongoDB uses Storybook & Chromatic

Adam Thompson
Sr. UI Engineer



90+

Packages

200+

Engineers & Designers

9+

Team members

Brooke Yalof
Lead UI Engineer

Adam Thompson
Sr. UI Engineer

Shaneeza Ali
UI Engineer

Stephen Lee
UI Engineer

You?
Sr. UI Engineer

Rob Audroue
Lead Interaction Designer

Alven Wang
Interaction Designer

Sandy Nguyen
Interaction Designer

Sooa Chung
Interaction Designer

Hannah Peet
Program Manager

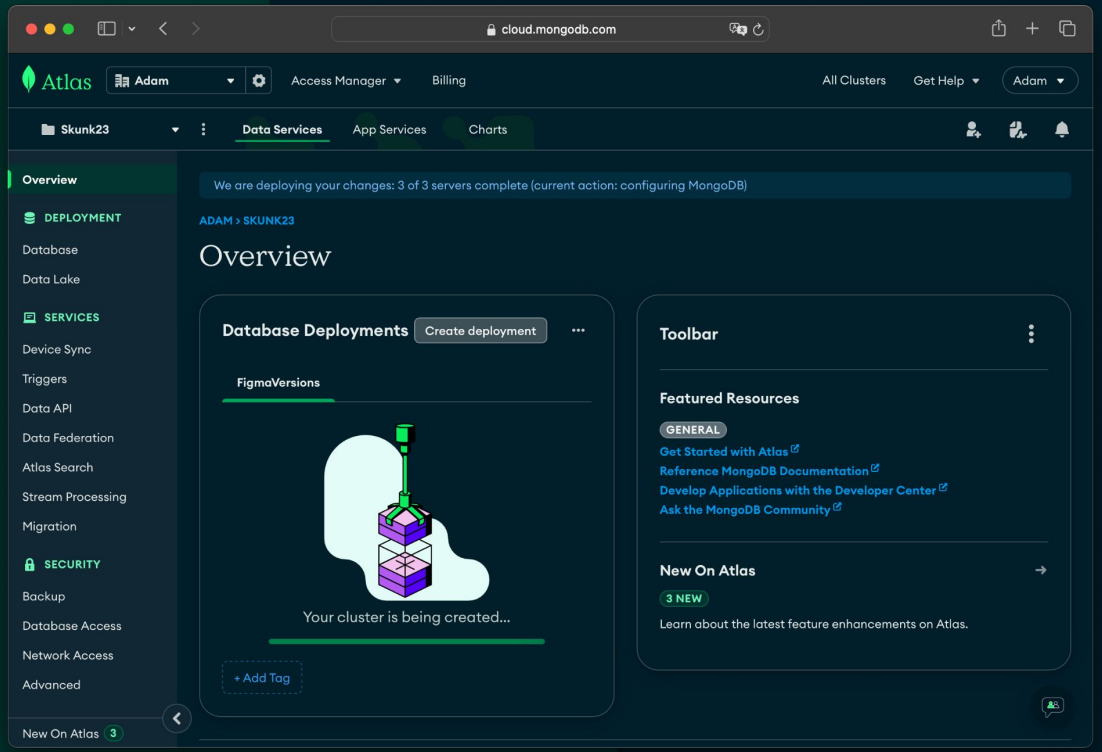
MongoDB Design Systems Team

#leafygreen-ui

What is LeafyGreen?

We provide resources and guidelines that developers and designers use to build consistent, effective, and high-quality experiences across MongoDB products.

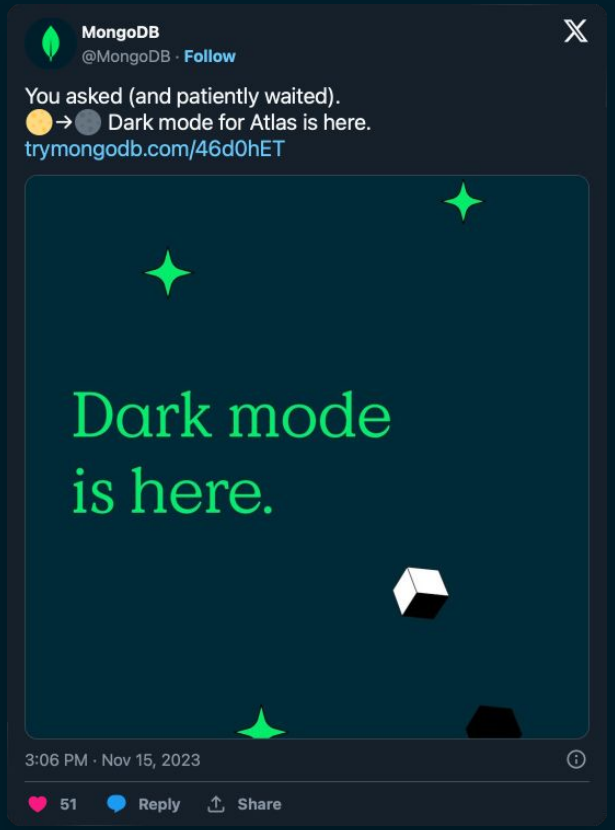
Atlas


cloud.mongodb.com
Atlas
Adam
Access Manager
Billing
All Clusters
Get Help
Adam
Skunk23
Data Services
App Services
Charts
Overview
DEPLOYMENT
Database
Data Lake
SERVICES
Device Sync
Triggers
Data API
Data Federation
Atlas Search
Stream Processing
Migration
SECURITY
Backup
Database Access
Network Access
Advanced
New On Atlas 3
We are deploying your changes: 3 of 3 servers complete (current action: configuring MongoDB)
ADAM › SKUNK23
Overview
Database Deployments
Create deployment
FigmaVersions
Your cluster is being created...
+ Add Tag
Toolbar
Featured Resources
GENERAL
Get Started with Atlas
Reference MongoDB Documentation
Develop Applications with the Developer Center
Ask the MongoDB Community
New On Atlas
3 NEW
Learn about the latest feature enhancements on Atlas.

Storybook

mongoDB.

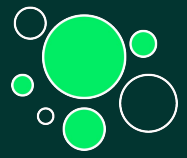
MongoDB.



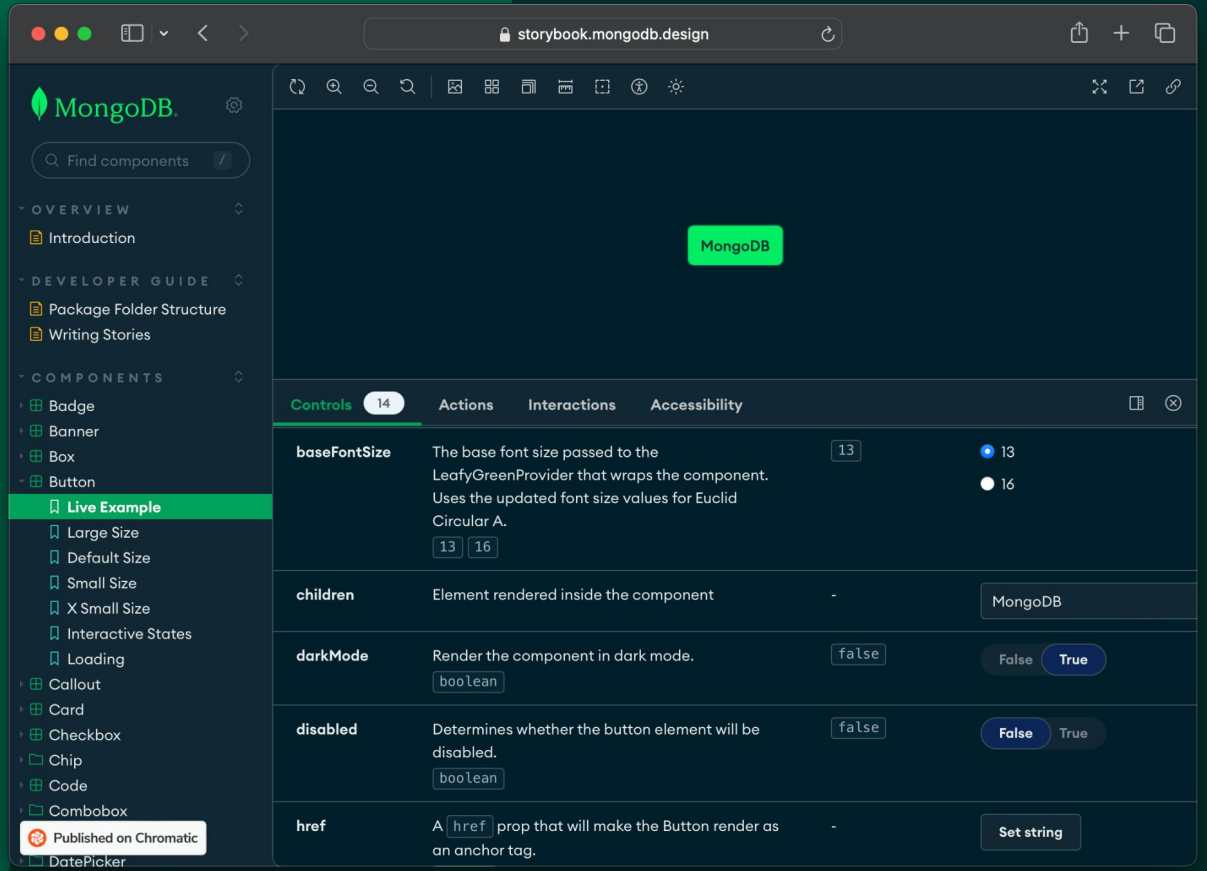
Tight feedback loop

Storybook

as a *storefront*



Only provide controls that have visual impact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Find components
/
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Button
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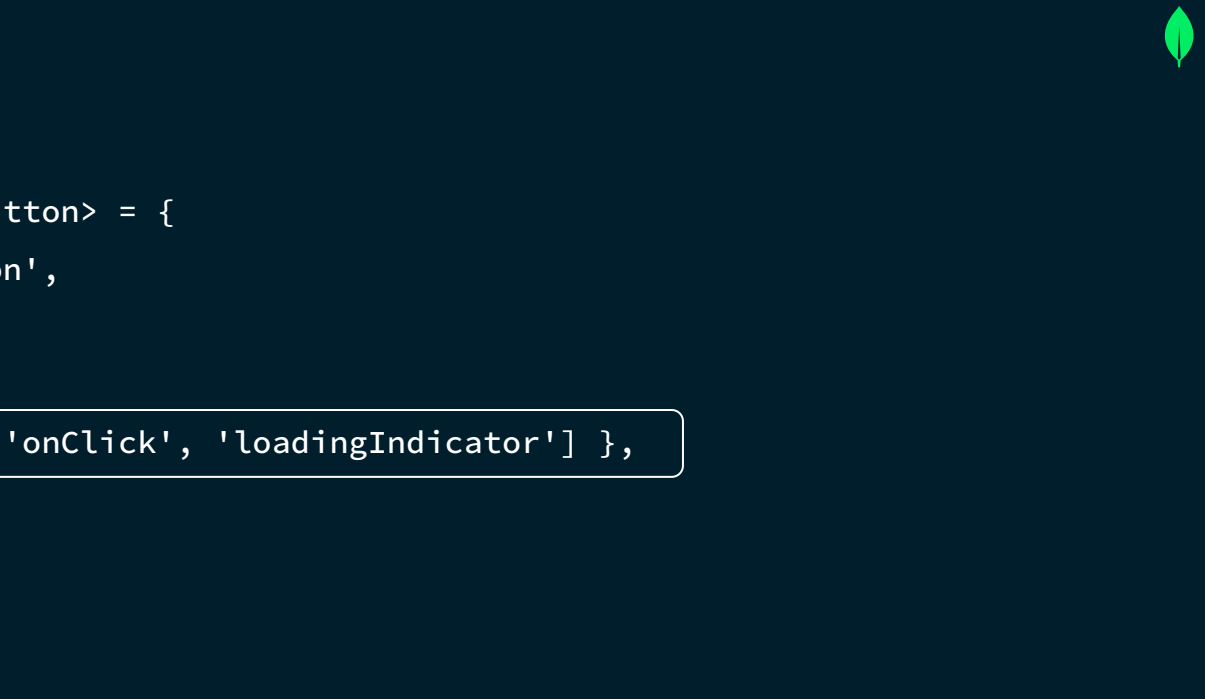
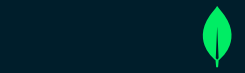
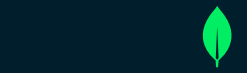
Large Size
Default Size
Small Size
X Small Size
Interactive States
Loading
Callout
Card
Checkbox
Chip
Code
Combobox
Published on Chromatic
DatePicker
MongoDB
Controls 14
Actions
Interactions
Accessibility
baseFontSize
The base font size passed to the LeafyGreenProvider that wraps the component. Uses the updated font size values for Euclid Circular A.
13 16
13
13
16
children
Element rendered inside the component
-
MongoDB
darkMode
Render the component in dark mode.
boolean
false
False
True
disabled
Determines whether the button element will be disabled.
boolean
false
False
True
href
A href prop that will make the Button render as an anchor tag.
-
Set string

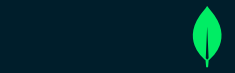

const meta: Meta<typeof Button> = {
title: 'Components/Button',
component: Button,
parameters: {
controls: { exclude: ['onClick', 'loadingIndicator'] },
...
},
};
export default meta;



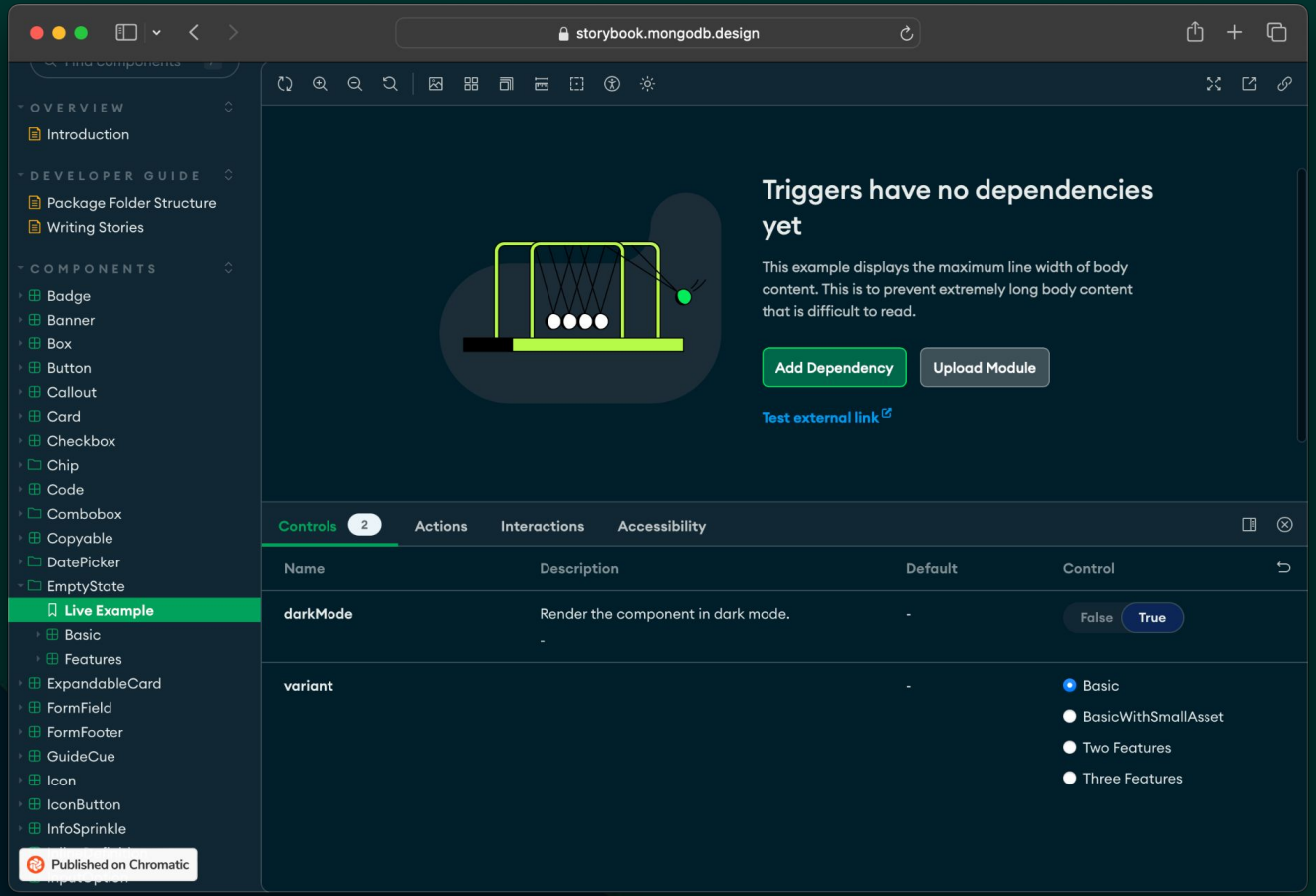
```
const meta: Meta<typeof Button> = {
  title: 'Components/Button',
  component: Button,
  parameters: {
    ...
    argTypes: {
      leftGlyph: {
        control: { type: 'select' },
        options: Object.keys(glyphs),
      },
      ...
    },
    ...
};
export default meta;
```



```
const meta: Meta<typeof Button> = {
  title: 'Components/Button',
  component: Button,
  parameters: {
    ...
  args: { children: 'MongoDB' }
  },
};
export default meta;
```



```
export const LiveExample: StoryFn<typeof Button> = ({
  leftGlyph,
  rightGlyph,
  ...args
}: ButtonProps) => (
  <Button
    // the glyph args are strings, but Button expects a full Icon component
    leftGlyph={leftGlyph ? <Icon glyph={leftGlyph} /> : undefined}
    rightGlyph={rightGlyph ? <Icon glyph={rightGlyph} /> : undefined}
    {...args}
  />
);
```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Card
Checkbox
Chip
Code
Combobox
Copyable
DatePicker
EmptyState
Live Example
Basic
Features
ExpandableCard
FormField
FormFooter
GuideCue
Icon
IconButton
InfoSprinkle
Published on Chromatic
Triggers have no dependencies yet
This example displays the maximum line width of body content. This is to prevent extremely long body content that is difficult to read.
Add Dependency
Upload Module
Test external link
Controls 2
Actions
Interactions
Accessibility
Name
Description
Default
Control
darkMode
Render the component in dark mode.
-
False
True
variant
-
Basic
BasicWithSmallAsset
Two Features
Three Features


storybook.mongodb.design

Storybook

as a *workshop*

Controlled

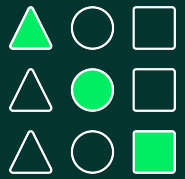
```
export const Controlled = (args) => {
  const [value, setValue] = useState(‘’)

  return <TextInput
    {...args}
    value={value}
    onChange={(e) => {
      setValue(e.target.value)
    }}
  />
}
```

In Modal

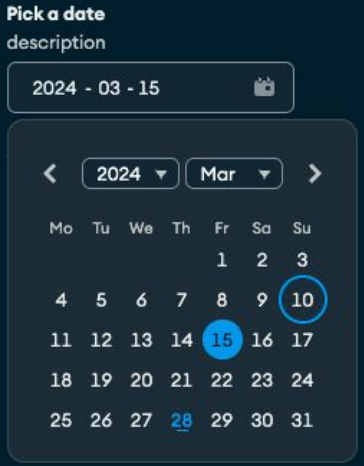
```
export const Modal = (args) => {
  const [open, setOpen] = useState(false)

  return <>
    <Button
      onClick={() => setOpen(o => !o)}
    />
    <Modal open={open}>
      <TextInput {...args} />
    </Modal>
  </>
}
```

> Storybook is a frontend workshop for building UI components and pages in isolation.

storybook.js.org

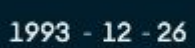


Design systems are already isolated...

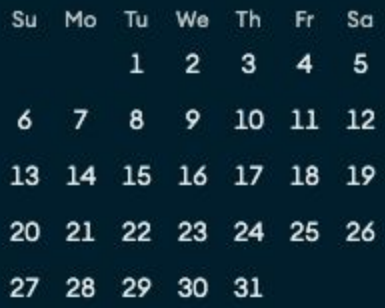

Pick a date
description
2024 - 03 - 15
2024
Mar
Mo Tu We Th Fr Sa Su
1 2 3
4 5 6 7 8 9 10
11 12 13 14 15 16 17
18 19 20 21 22 23 24
25 26 27 28 29 30 31

It’s stories all the way down…

DatePicker Sub-Components

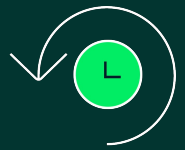


DateInput



CalendarGrid

CalendarCell

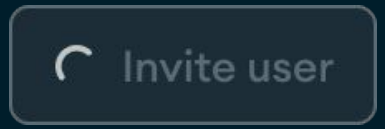


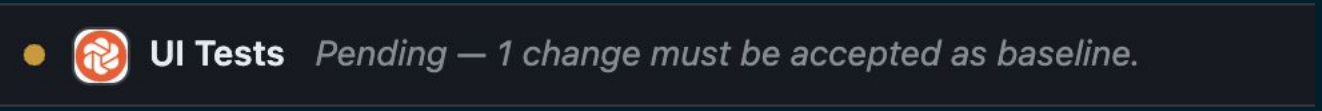
Regression testing was time consuming

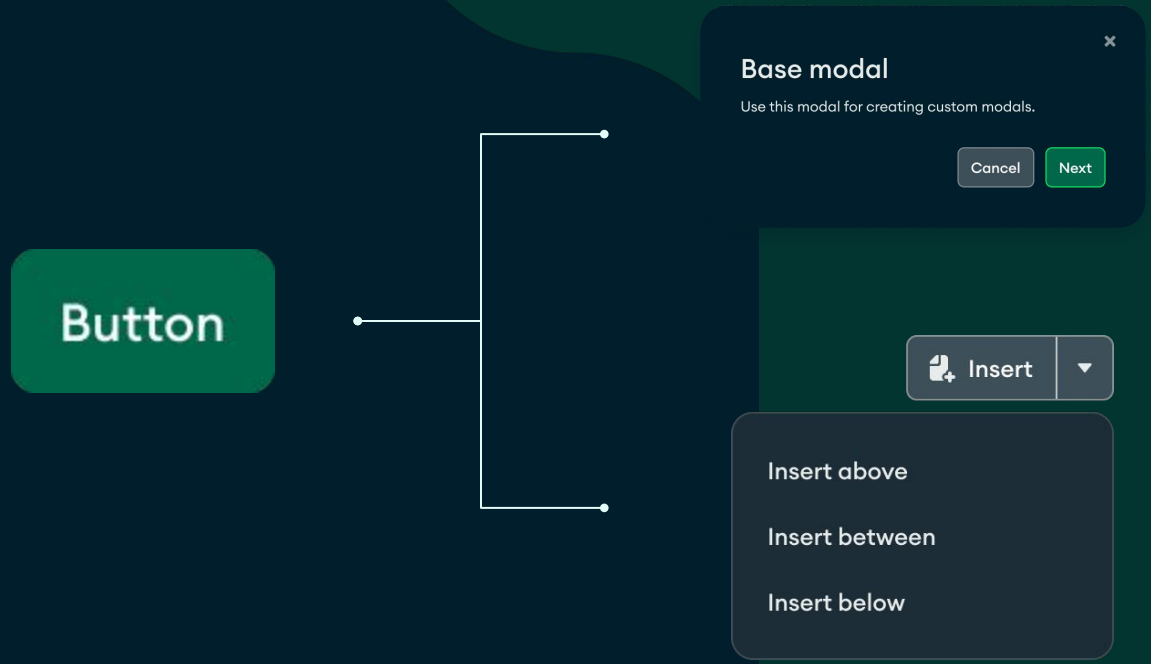
Chromatic

…a visual testing & review tool that scans every possible UI state across browsers to catch visual and functional bugs

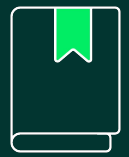
chromatic.com


Invite user

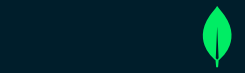

UI Tests
Pending — 1 change must be accepted as baseline.


Base modal
Use this modal for creating custom modals.
Cancel
Next
Button
Insert
Insert above
Insert between
Insert below

Why was this not caught?

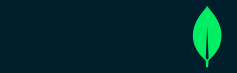


“Representative” stories



100%

Visual test coverage



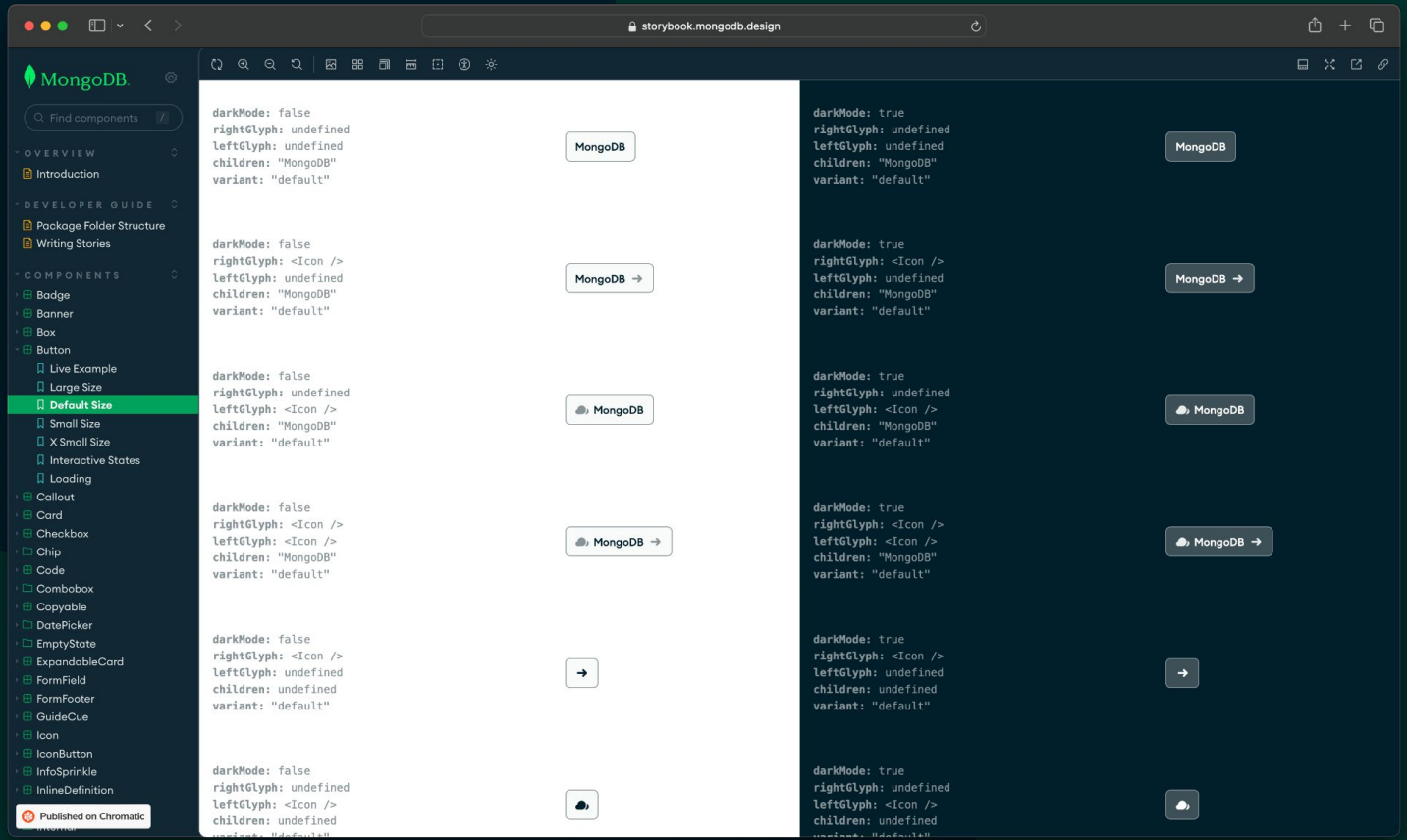
```
type ButtonProps = {
  baseFontSize: 13 | 16,
  disabled: true | false,
  darkMode: true | false,
  isLoading: true | false,
  leftGlyph: undefined | Glyph,
  rightGlyph: undefined | Glyph,
  size: "default" | "xsmall" | "small" | "large",
  variant: "default" | "primary" | "primaryOutline" | "danger" |
    "dangerOutline" | "baseGreen"
}
```

1536

Unique prop combinations

What if we could loop?

Decorators & Addons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Chip
Code
Combobox
Copyable
DatePicker
EmptyState
ExpandableCard
FormField
FormFooter
GuideCue
Icon
IconButton
InfoSprinkle
InlineDefinition
Published on Chromatic
darkMode: false
rightGlyph: undefined
leftGlyph: undefined
children: "MongoDB"
variant: "default"
MongoDB
darkMode: true
rightGlyph: undefined
leftGlyph: undefined
children: "MongoDB"
variant: "default"
MongoDB
darkMode: false
rightGlyph: <Icon />
leftGlyph: undefined
children: "MongoDB"
variant: "default"
MongoDB →
darkMode: true
rightGlyph: <Icon />
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children: "MongoDB"
variant: "default"
MongoDB →
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children: "MongoDB"
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variant: "default"
MongoDB →
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darkMode: false
rightGlyph: <Icon />
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variant: "default"
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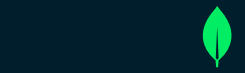
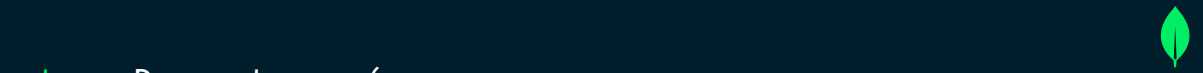
darkMode: false
rightGlyph: undefined
leftGlyph: <Icon />
children: undefined
darkMode: true
rightGlyph: undefined
leftGlyph: <Icon />
children: undefined



```
export default {
  ...
  decorators: [PropCombinationsDecorator],
  parameters: {
    generate: {
      combineArgs: {
        variant: Object.values(Variant),
        size: Object.values(Size),
        rightGlyph: [undefined, <Icon glyph={'ArrowRight'} />],
        leftGlyph: [undefined, <Icon glyph={'Cloud'} />],
        children: ['MongoDB', undefined],
      },
    },
  },
}
```



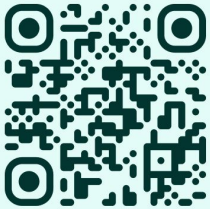
```
const PropCombinationsDecorator: Decorator = (
  StoryFn: StoryFn,
  context: StoryContext<unknown>,
) => {
  const { component } = context;
  const { parameters, args, name } = context
  const decoratorConfig = parameters['generate'];

  if (decoratorConfig && name === "Generated") {
    // Render the `component` with every unique combination of props
    const combos = getUniqueCombinations(decoratorConfig)
    return combos.map(combo => (
      React.createComponent(component, { ...args, ...combo })
    ))
  }

  return <StoryFn />
}
```


@lg-tools/storybook-addon
leafygreen-ui
leafygreen-private
lg-chat

Storybook at MongoDB

Adam Thompson

@thesonofthomp



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