goto;

GOTO AMSTERDAM 2023

#GOTOams



LET US HELP YOU

Ask questions through the app







also remember to rate session

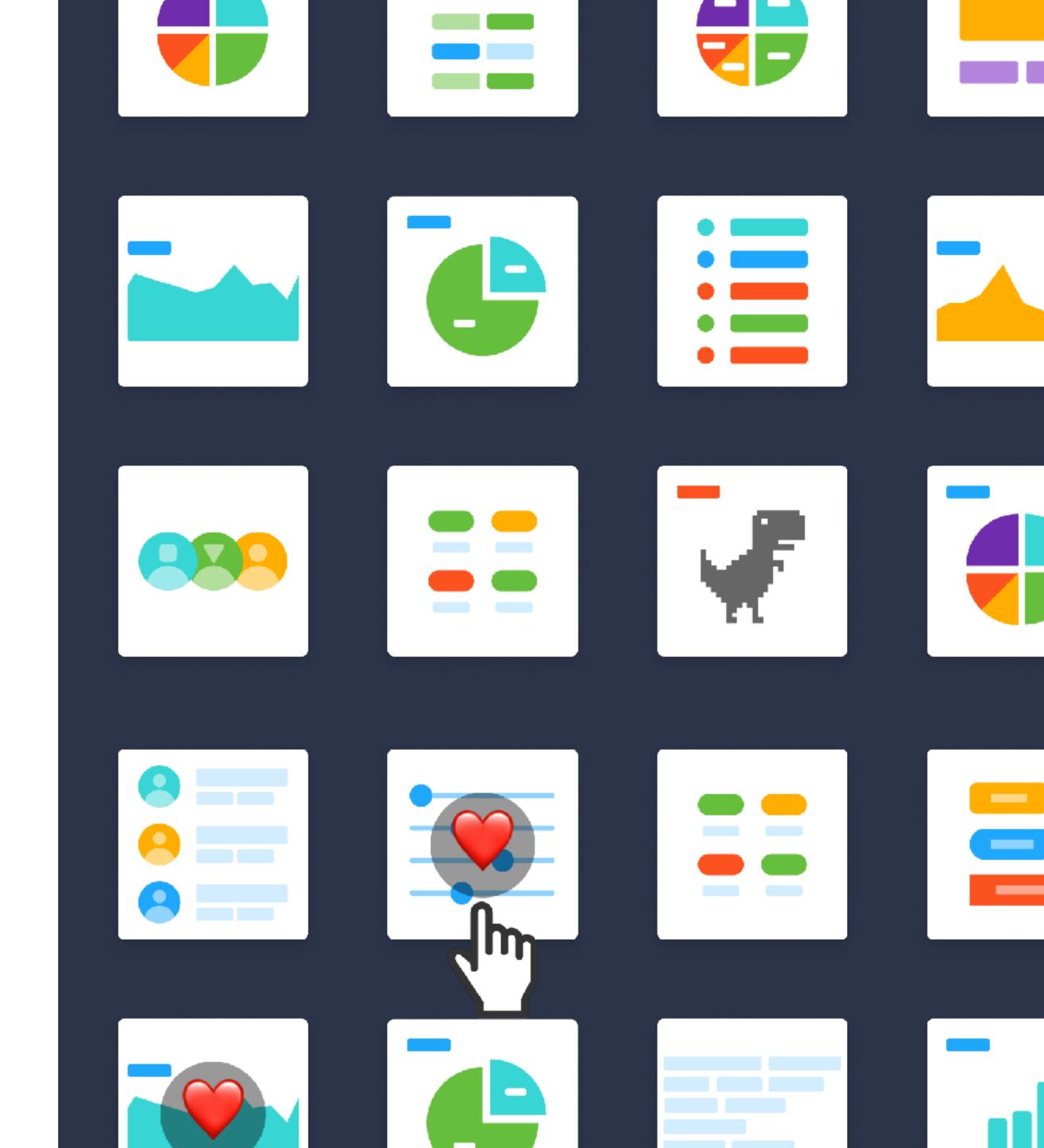
THANK YOU!

#GOTOams

State of Storybook

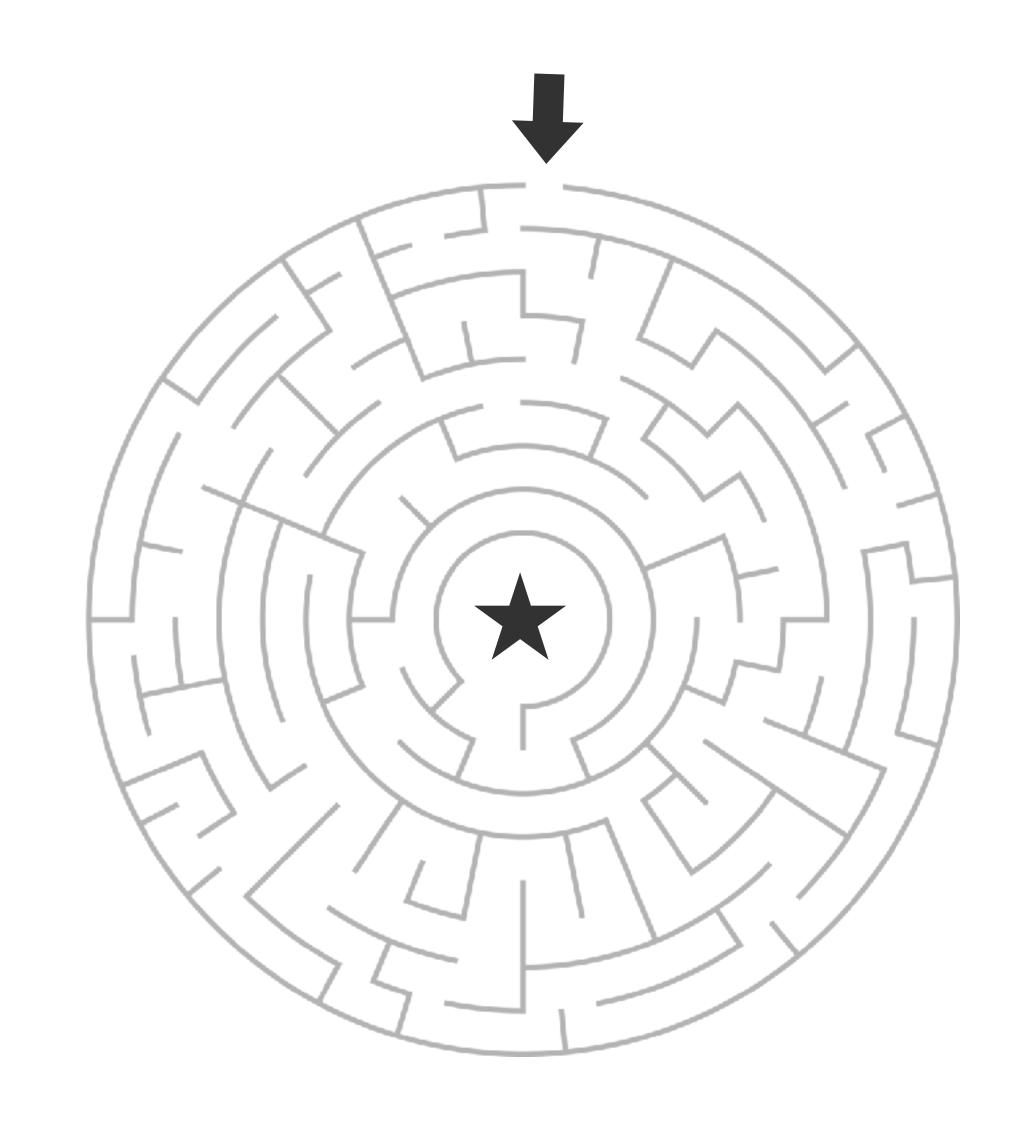


GOTO CONFERENCE • JUNE 2023



Do you remember working like this?

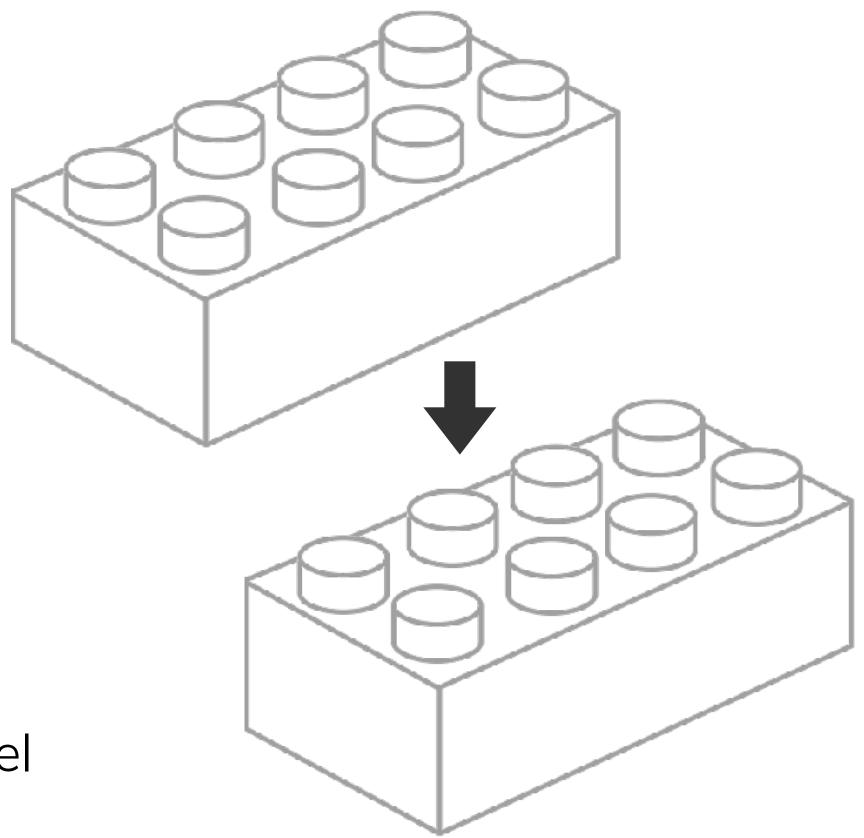
- **Spin up** the whole platform
- Recompile with each change
- **Design review** two weeks later
- Rework when it's already shipped



assembled

Modern Uls are built from components

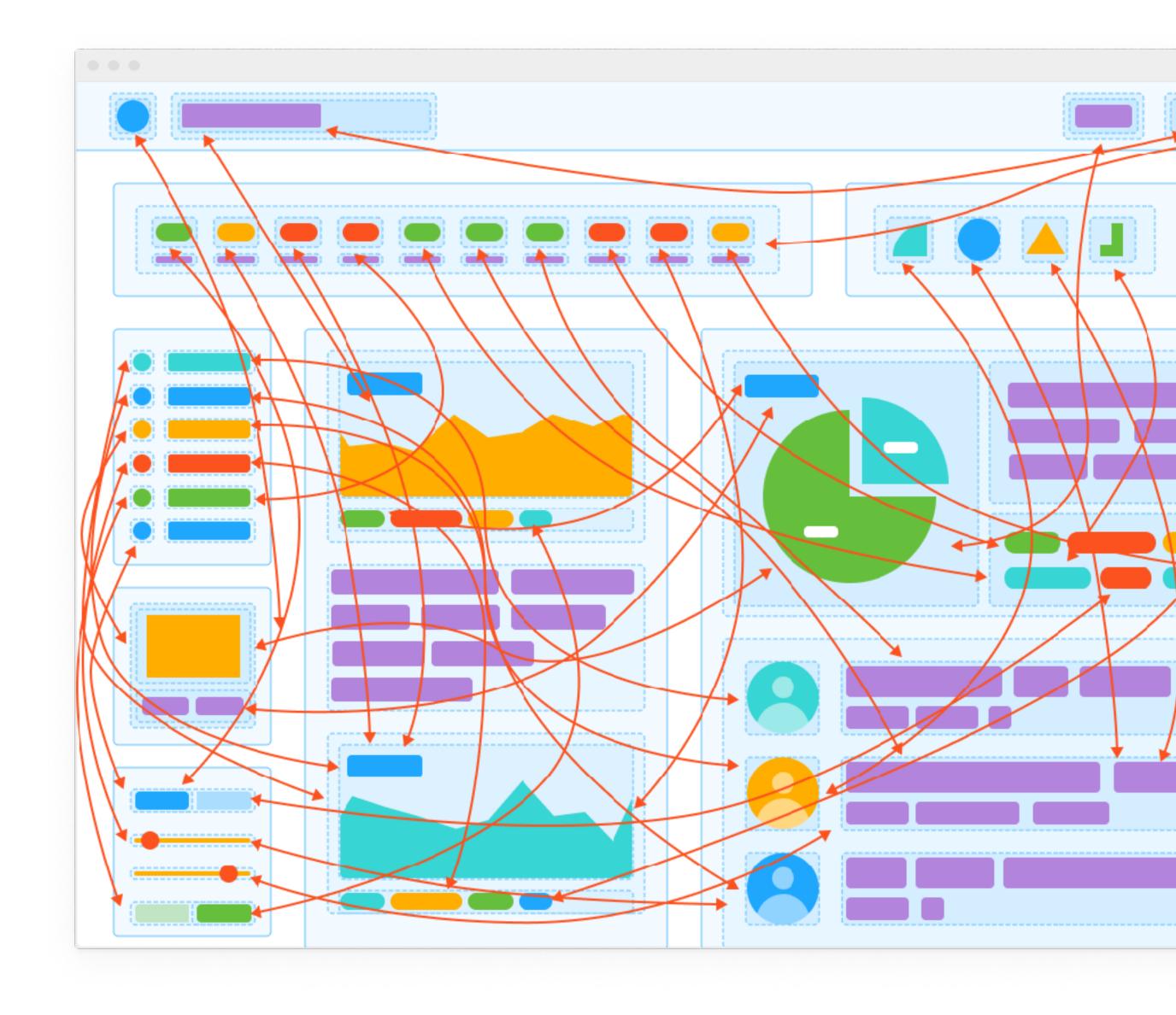
- **Efficiency:** Reuse existing components
- Speed: Parallelize development across teams
- **Quality:** Verify that UIs work in different scenarios
- Maintenance: Pinpoint bugs at the component level



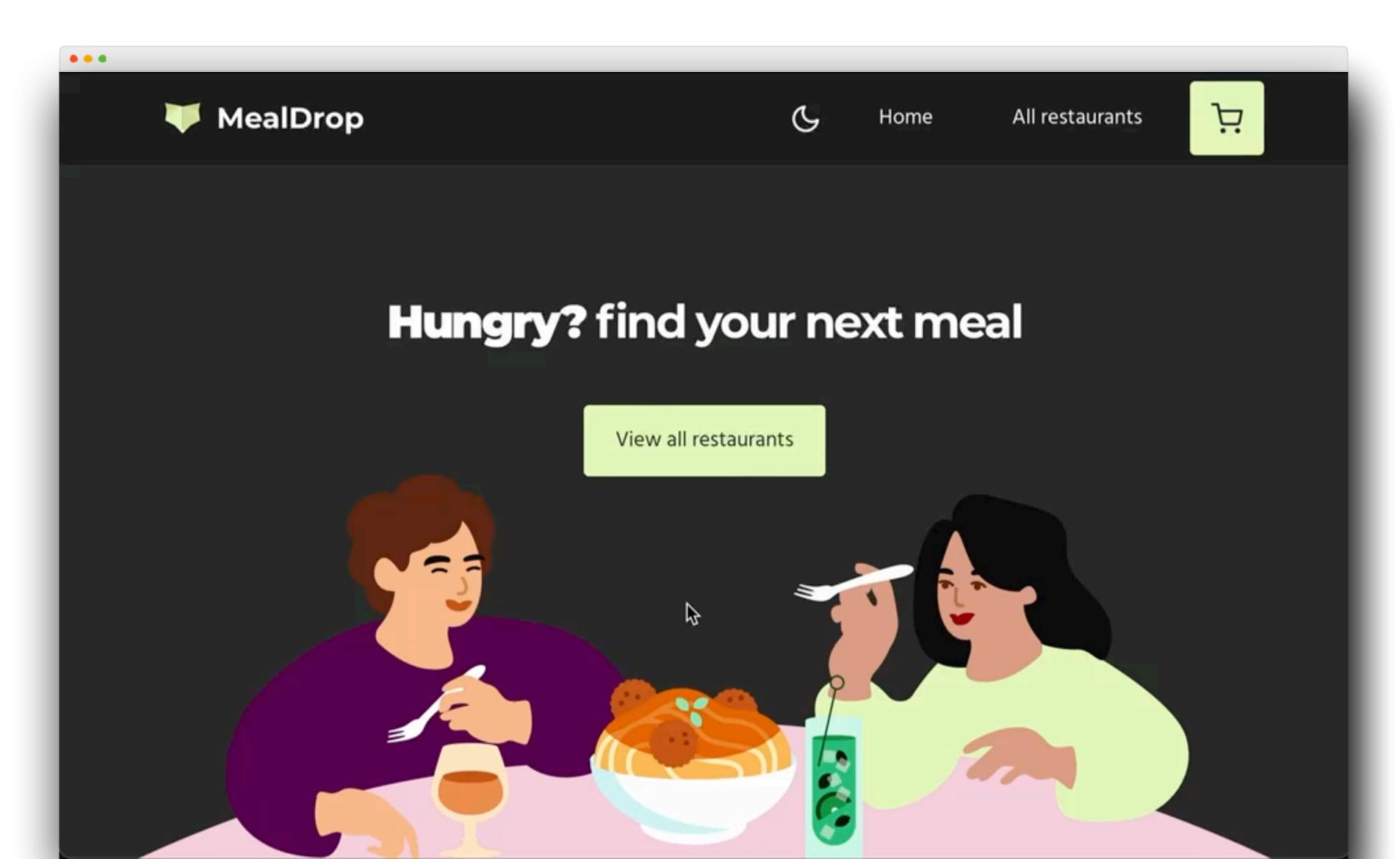
Ul development has many challenges

- Cross-browser
- Device compat.
- Responsiveness
- SEO
- Open graph
- User privacy

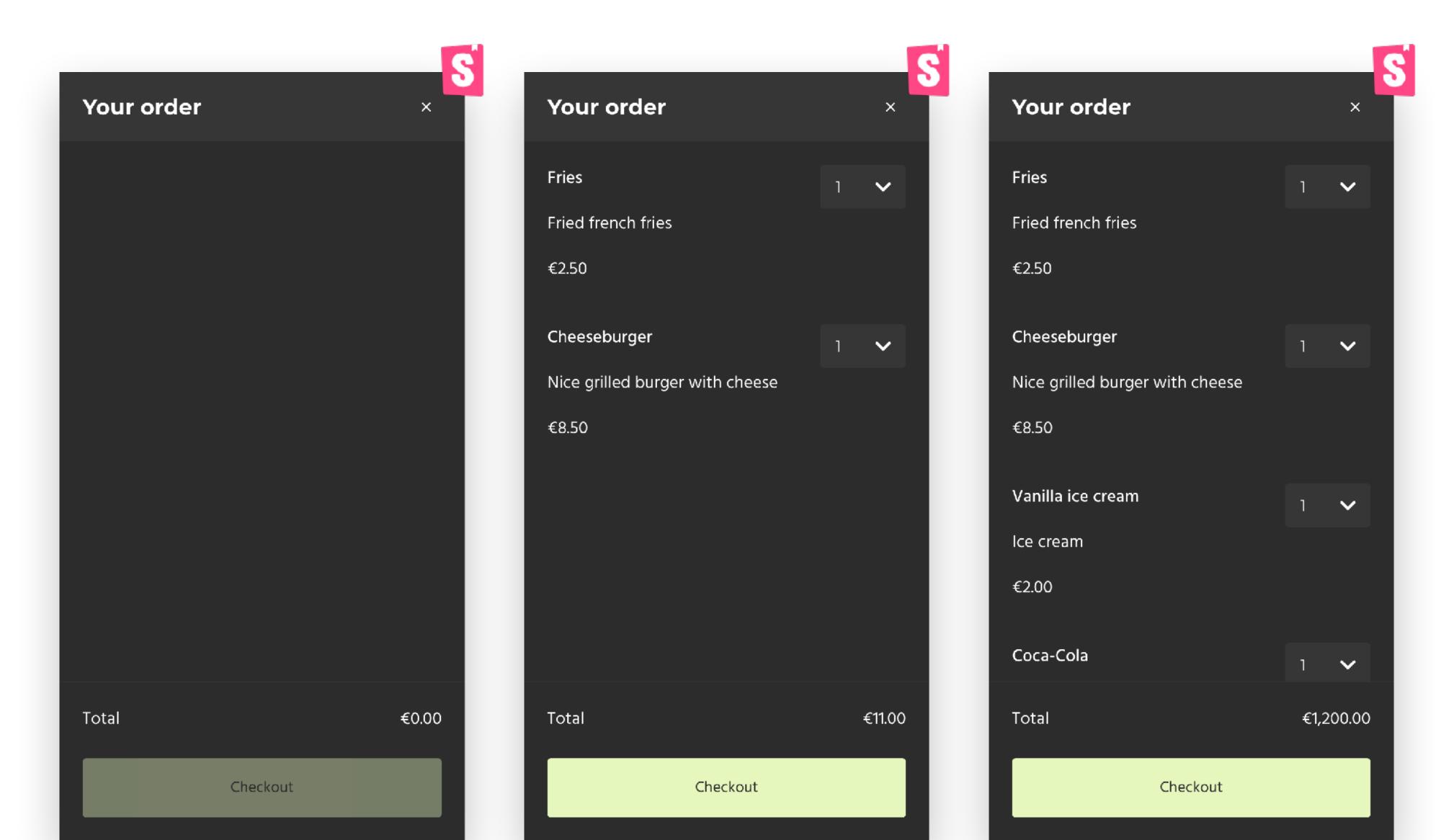
- Render speed
- Bundle size
- Dependencies
- Styling
- Accessibility
- State mgmt.



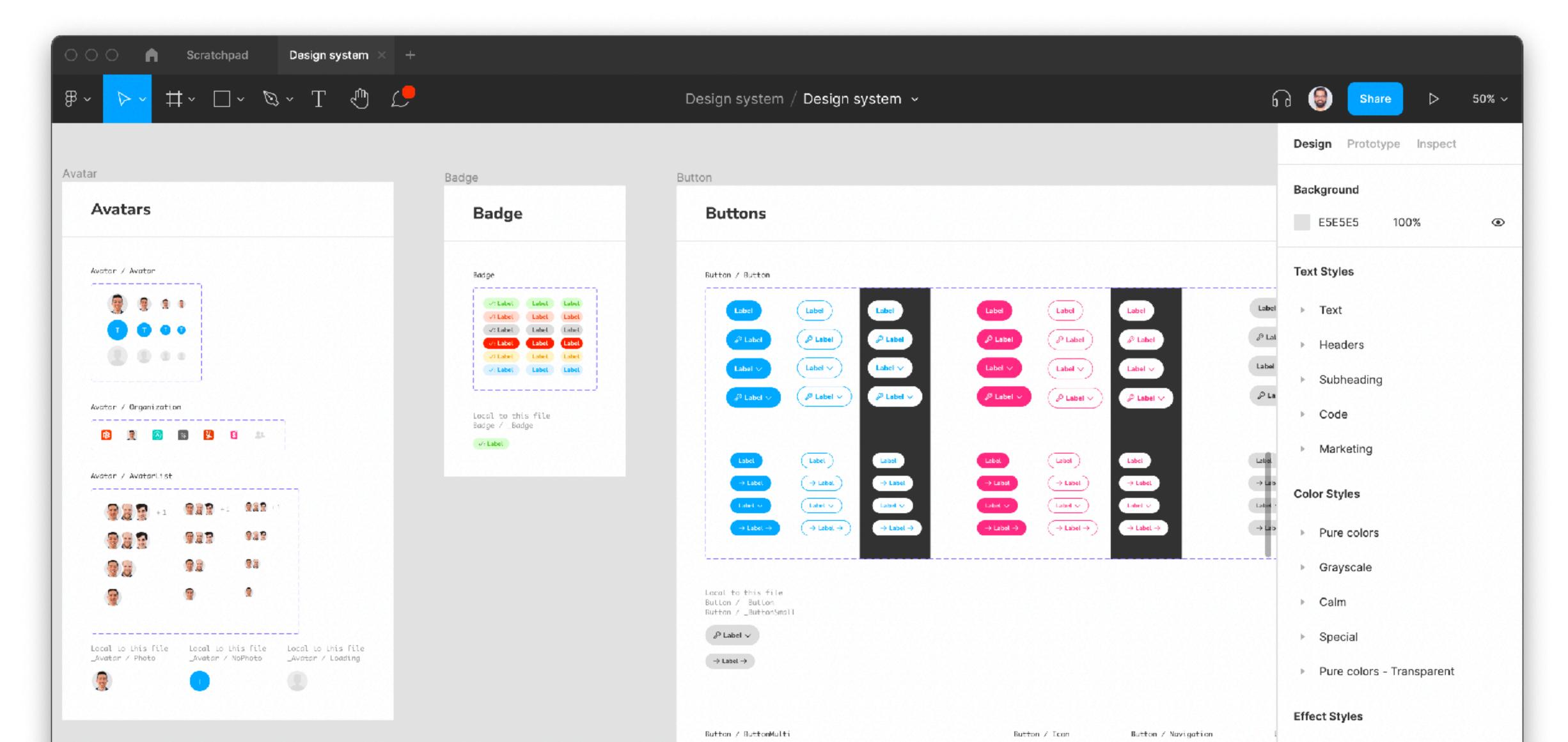
Existing UI development workflows are clunky



Isolate all use cases of a component

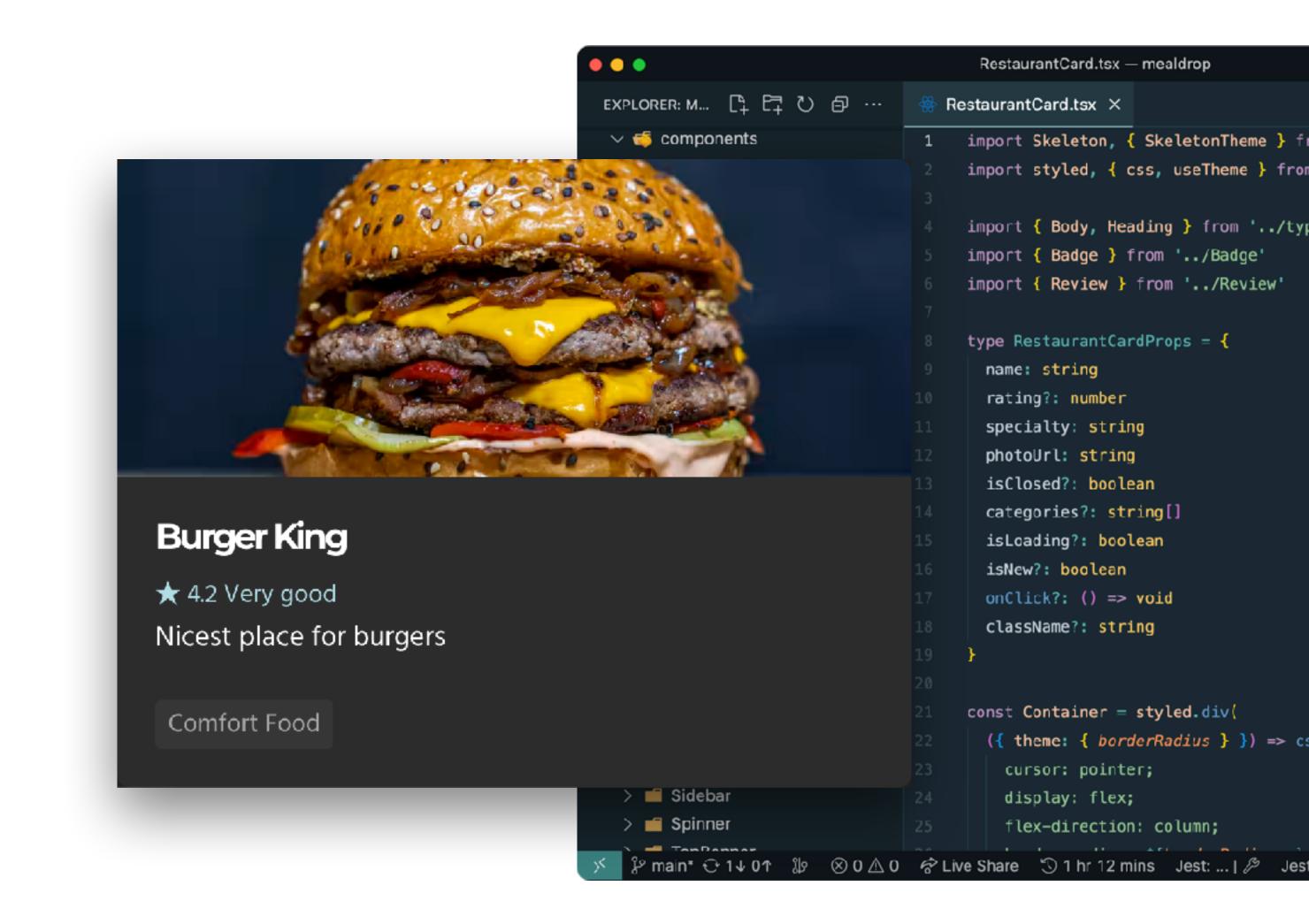


Designers use sticker sheets

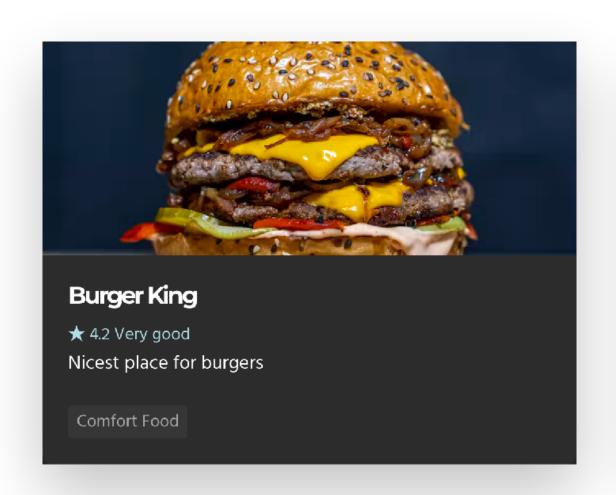


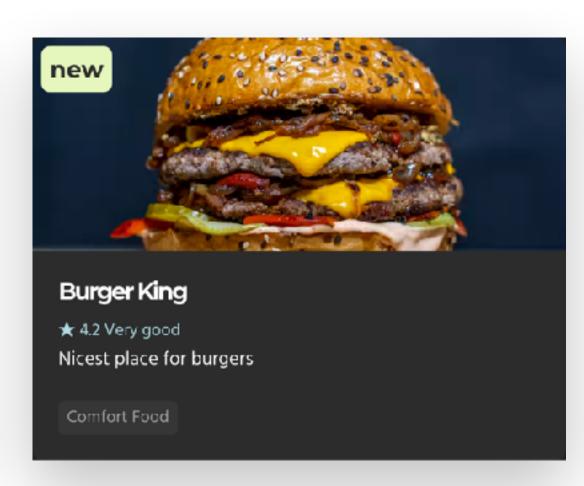
Storybook is a sticker sheet for components

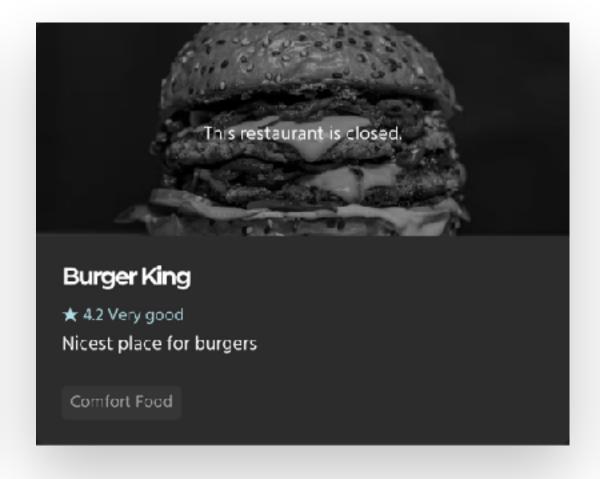
- Build components in isolation
- Catalog all components and states
- **Document** your component library
- Test complex UI and interactions
- Share with stakeholders



Stress test component states



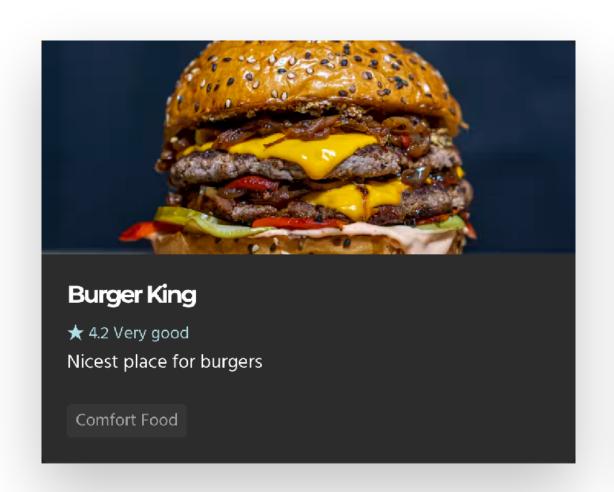


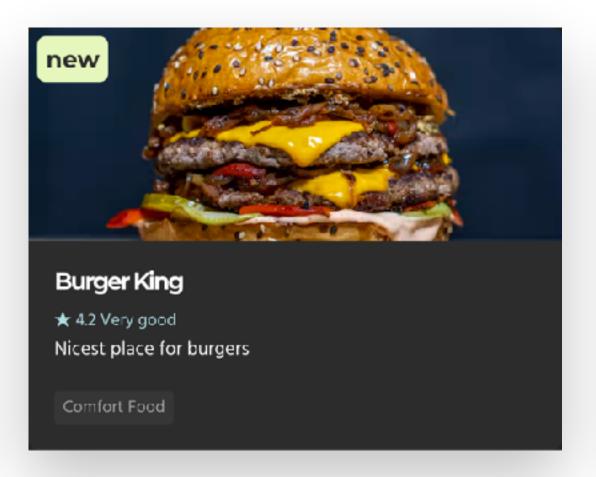


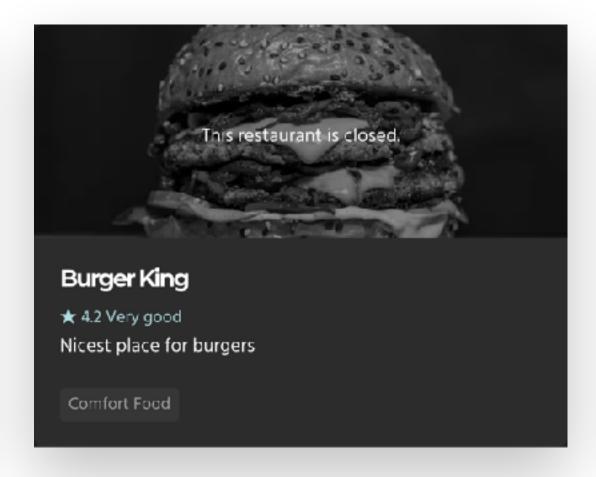


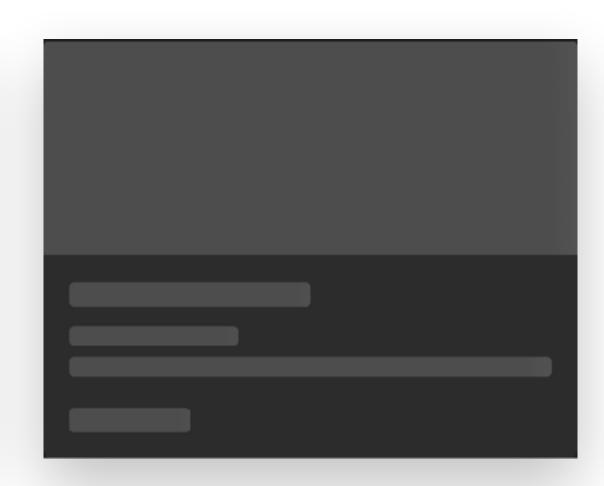
Default New Closed Loading

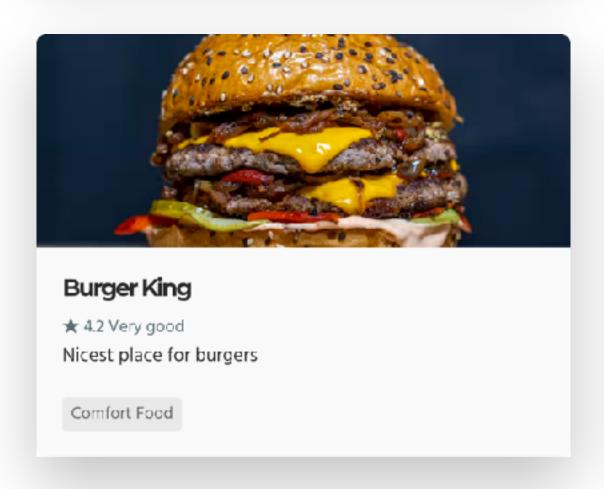
Stress test component variants

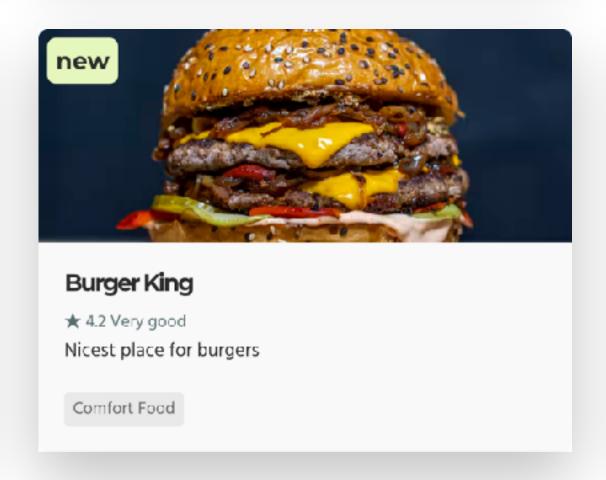


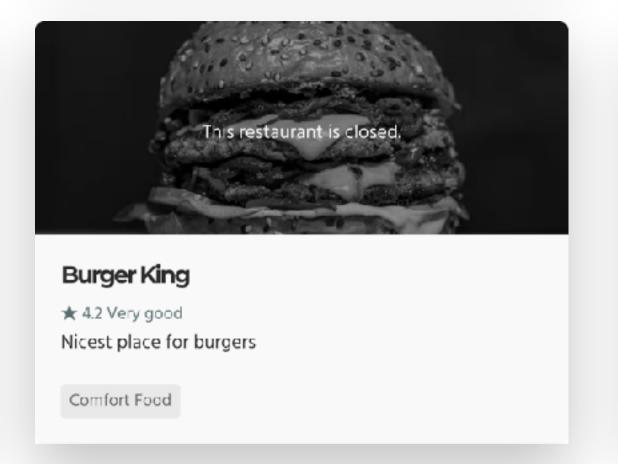












Define use cases with stories

States

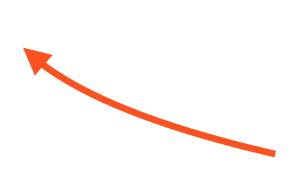
- Loading
- Disabled
- In progress
- Error
- Accepted / denied
- Expanded / collapsed

Edge cases

- Long or short text
- Big or small images
- Extreme numbers
- Missing data
- Special characters

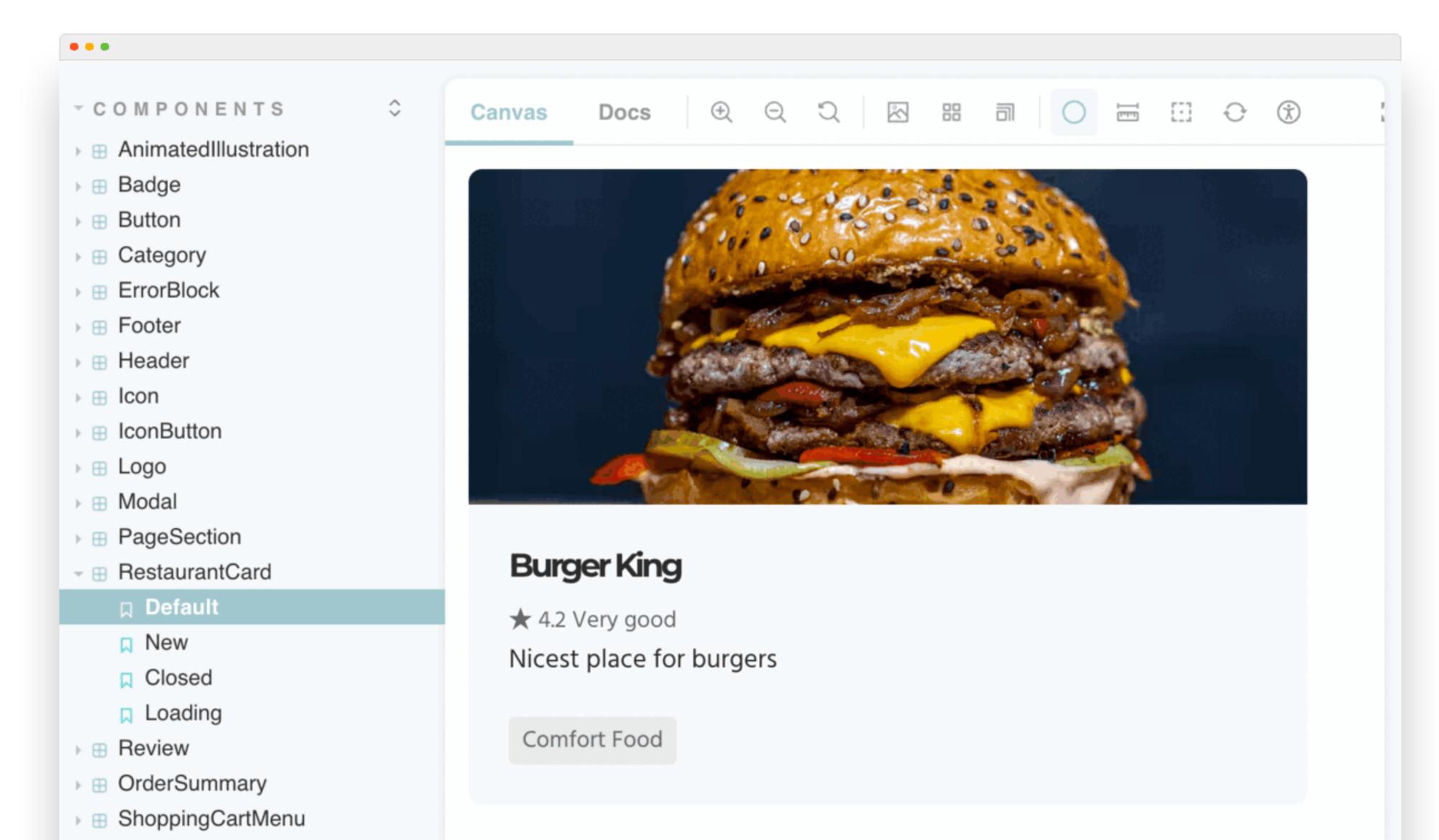
Context

- Signed in / signed out
- Language / location
- Color preference
- A/B test
- Offline



Countless combinations

Keep component development organized



The industry standard for UI development





























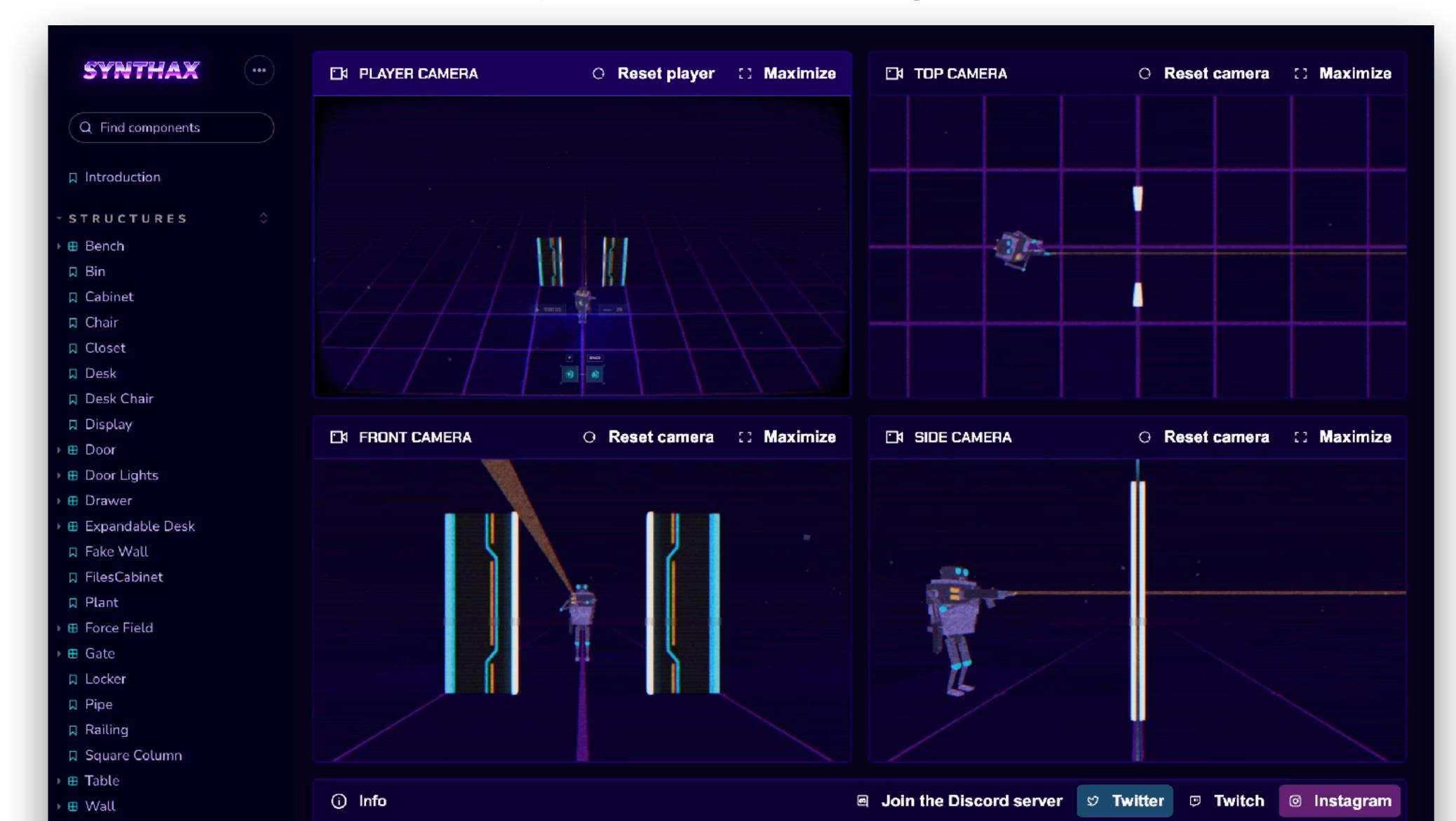








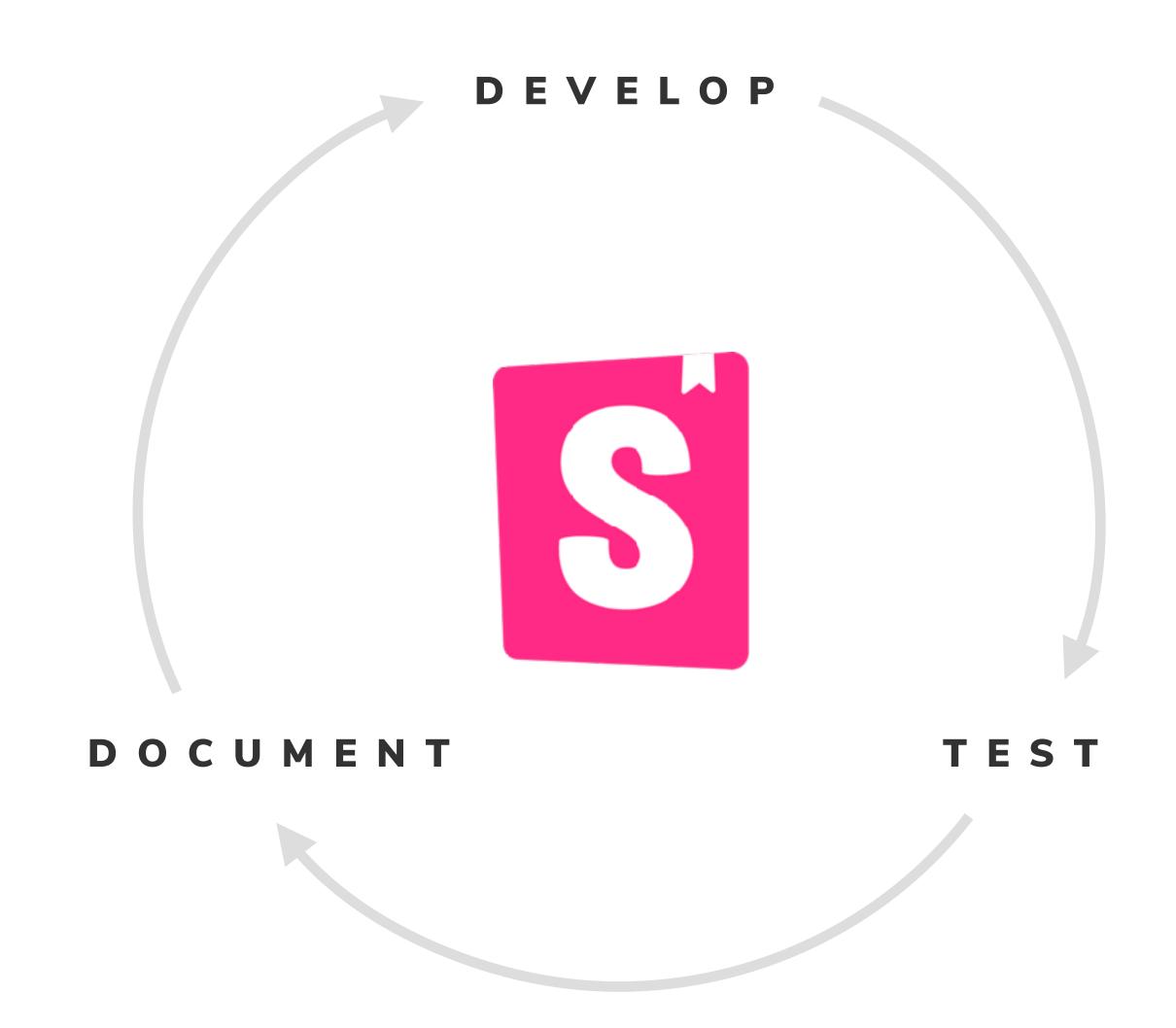
Not just for boring apps



Storybook 7.0 released in March



Storybook 7.1 is coming...



Develop

Work fast and with confidence by developing your components in isolation





























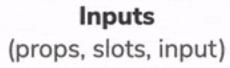


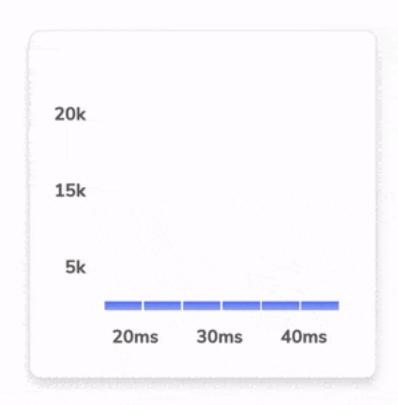


Capture component use cases as stories







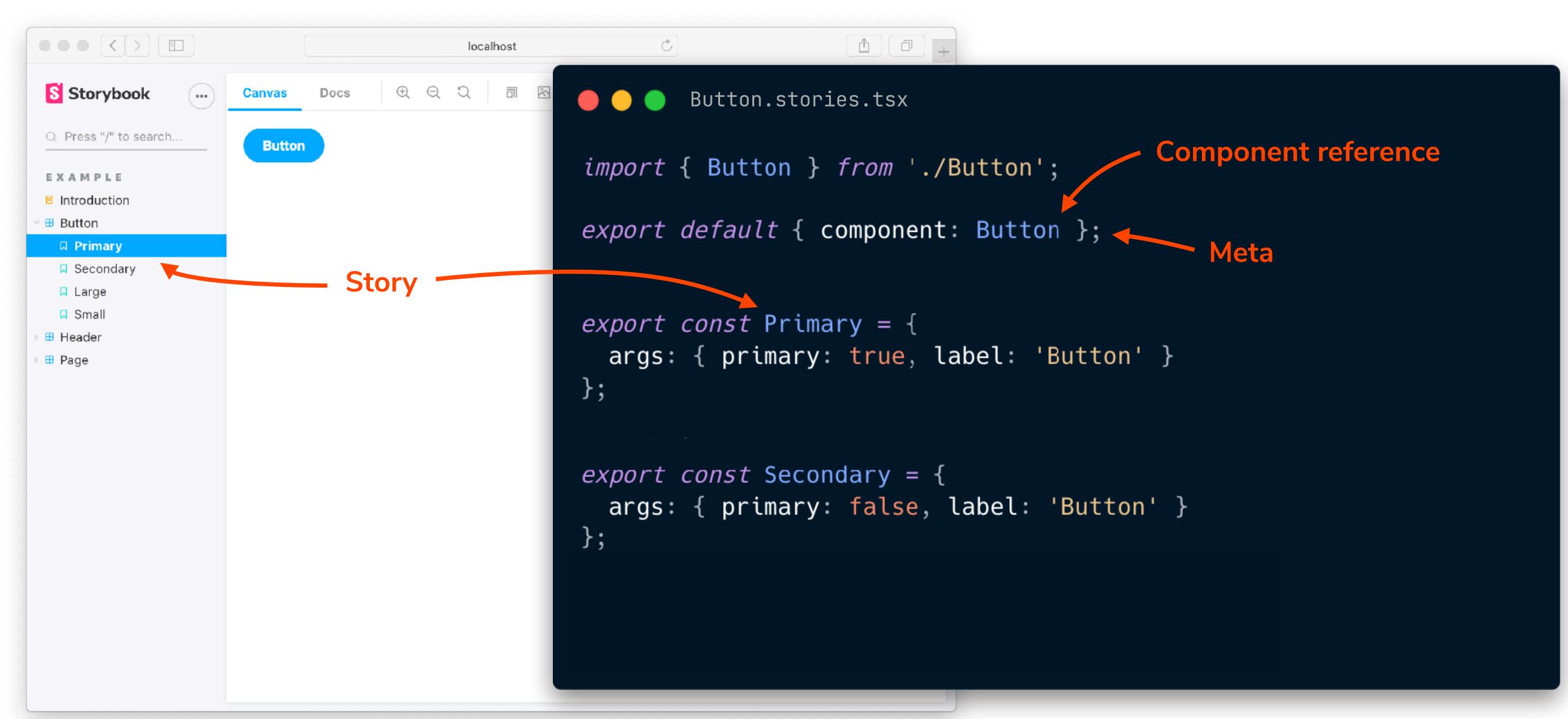


Component

Stories are unit tests, but for UIs

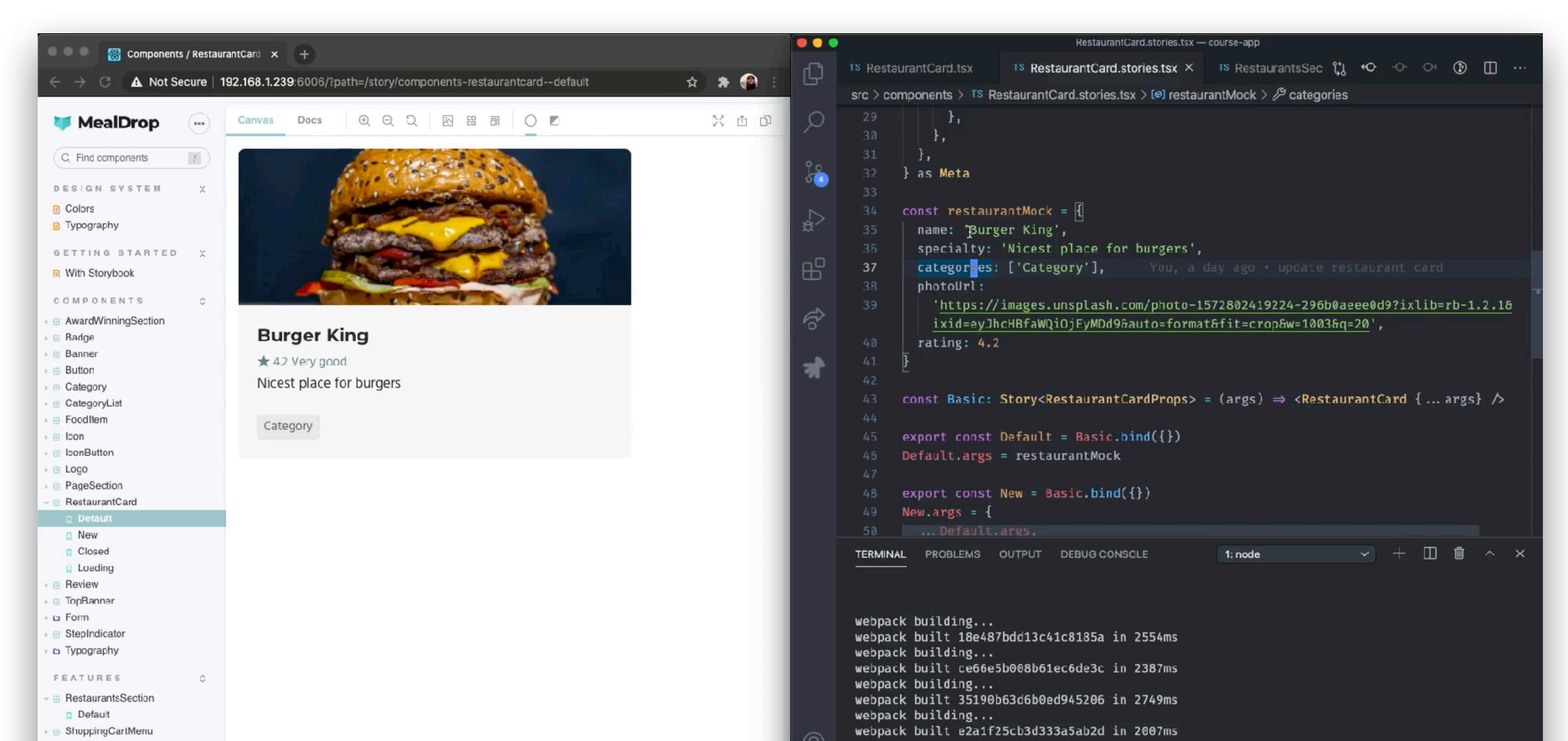


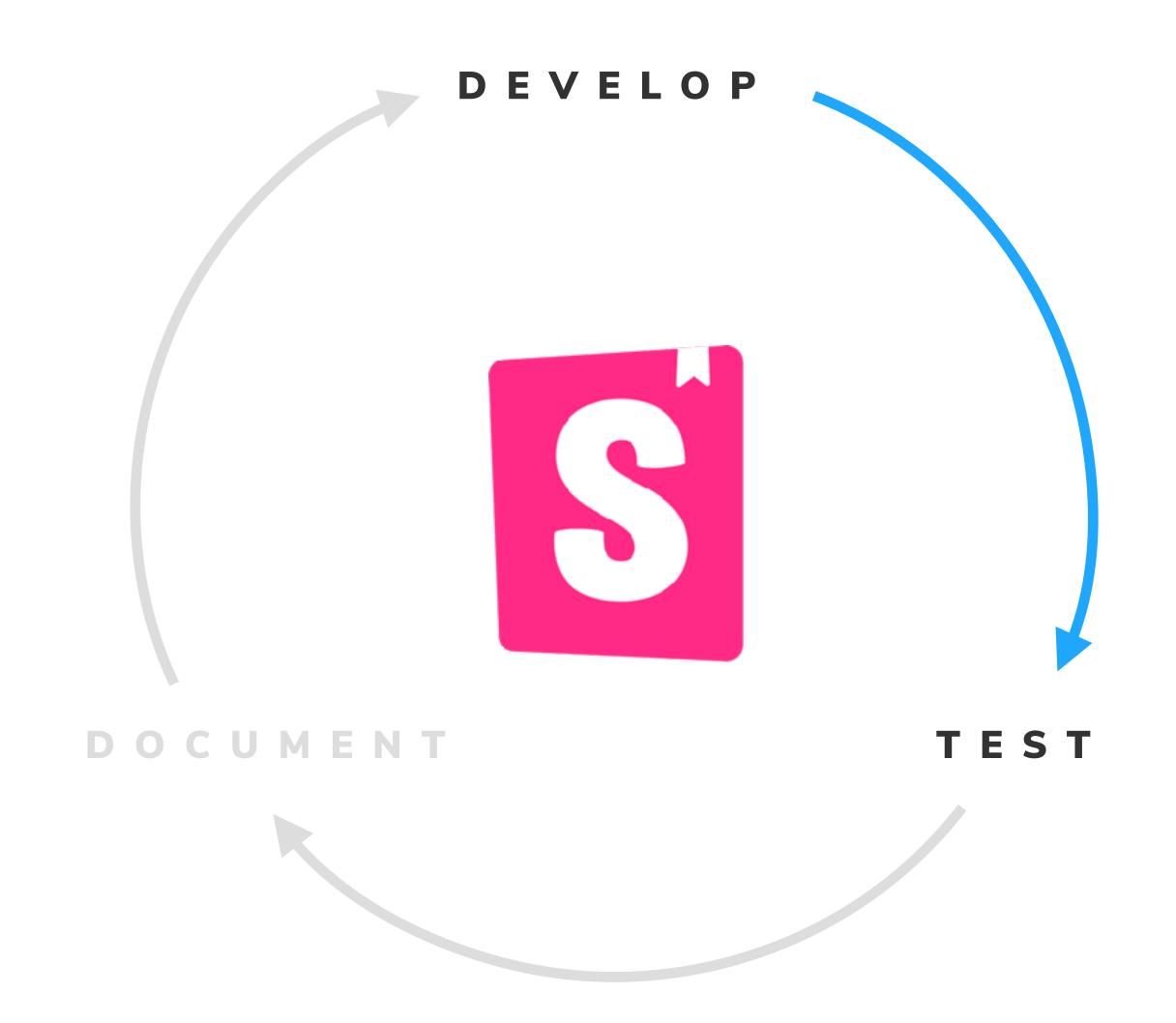
Writing a story





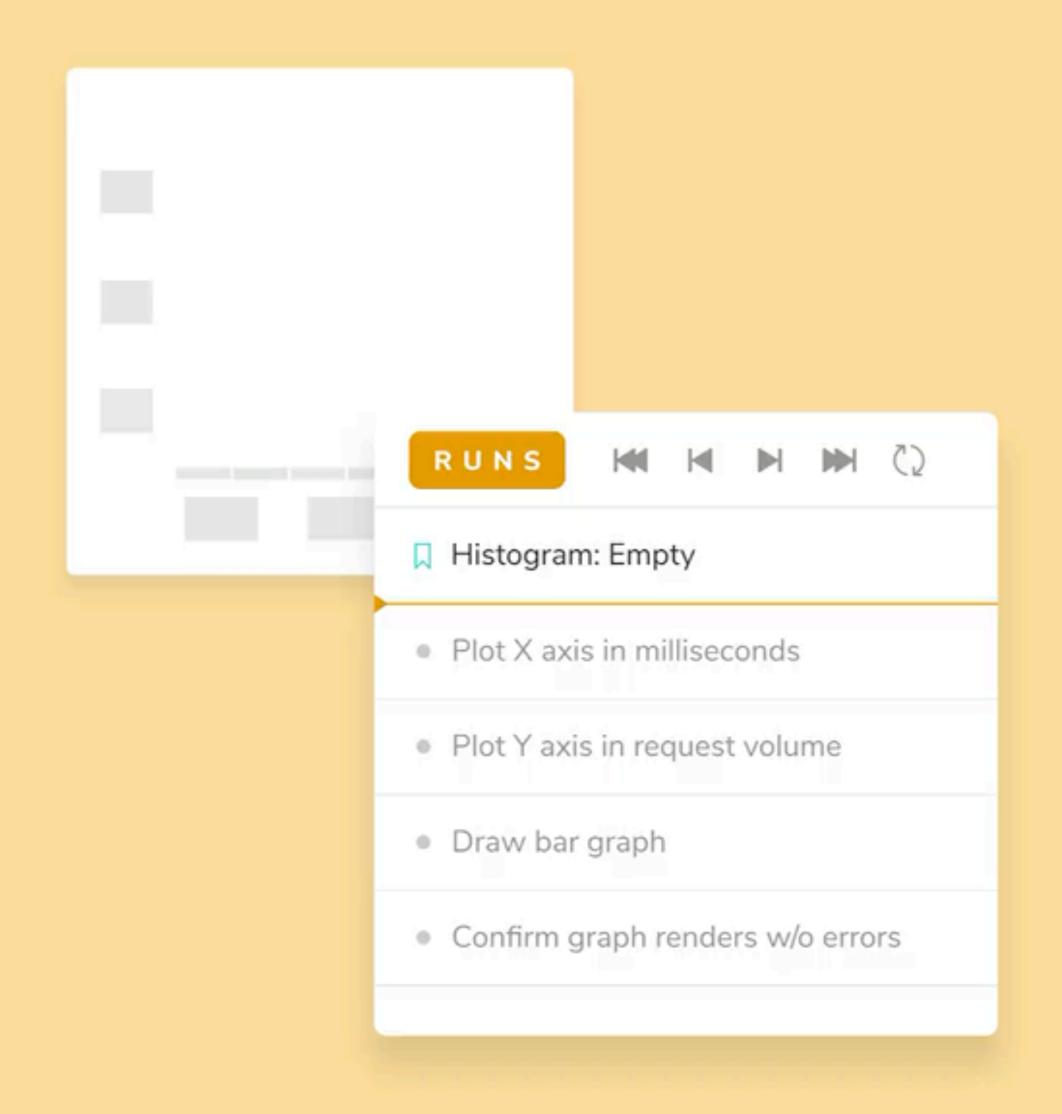
Quick feedback loop





Test

Simulate user behavior like click, hover, and type, from within your story file.



THE OLD-FASHIONED WAY

Component unit tests

- Setup component test case
- Render the component
- Simulate events with Testing Library
- Run assertions with Jest

```
import { render, screen, fireEvent } from 'testing-library/angu
import { DeleteCustomerDialog } from './delete-customer-dialog'

describe('Delete Customer dialog', () ⇒ {
   it('should open a dialog', async () ⇒ {
      await render(DeleteCustomerDialog);
      await fireEvent.click(screen.getByRole('button'));
      await expect(screen.getByText('Are you sure?'))
      .toBeInTheDocument();
   });
});
```

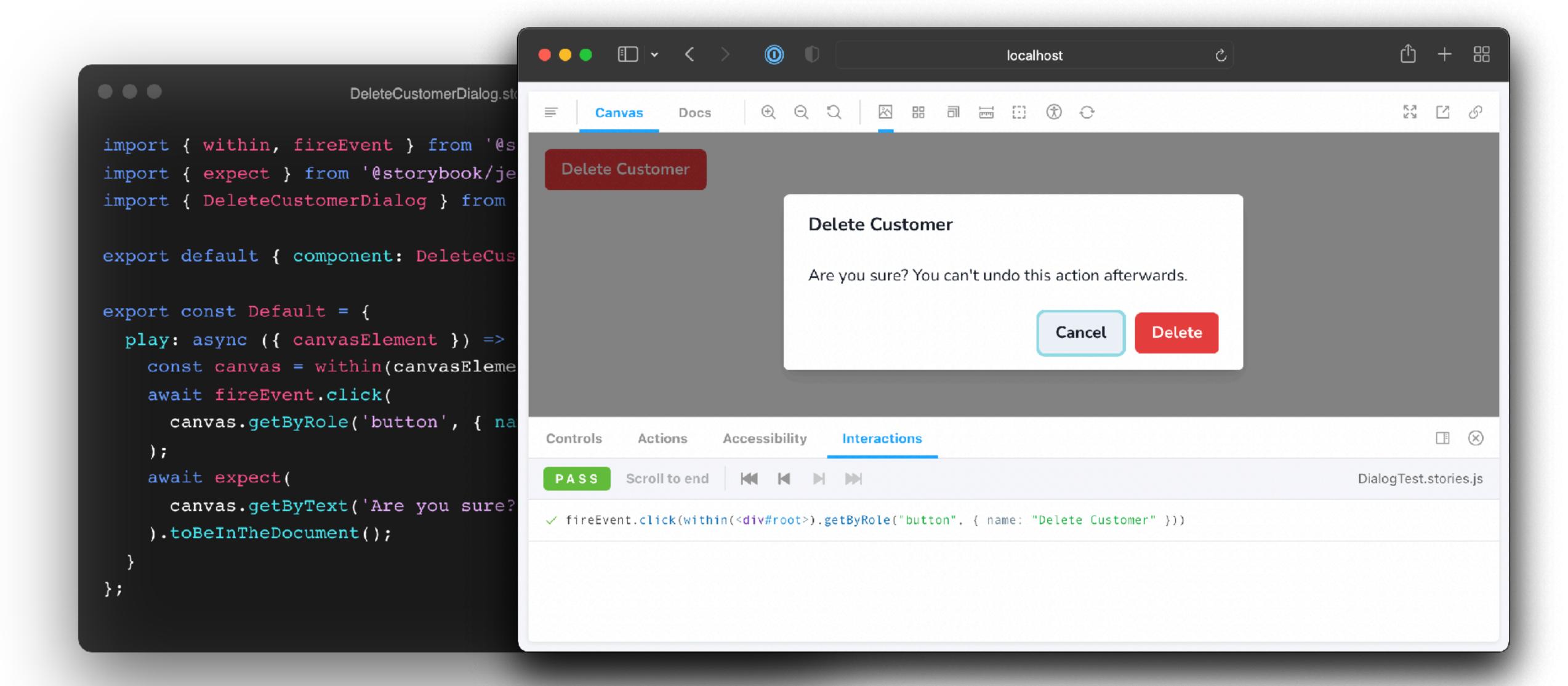
Jest relies on Node and JSDOM @

```
<button
PASS src/InboxScreen.test.js
                                                             aria-label="pin"
 InboxScreen
                                                             class="chakra-button css-xkku7u"

✓ should pin a task (907 ms)
                                                              type="button"

✓ should archive a task (166 ms)

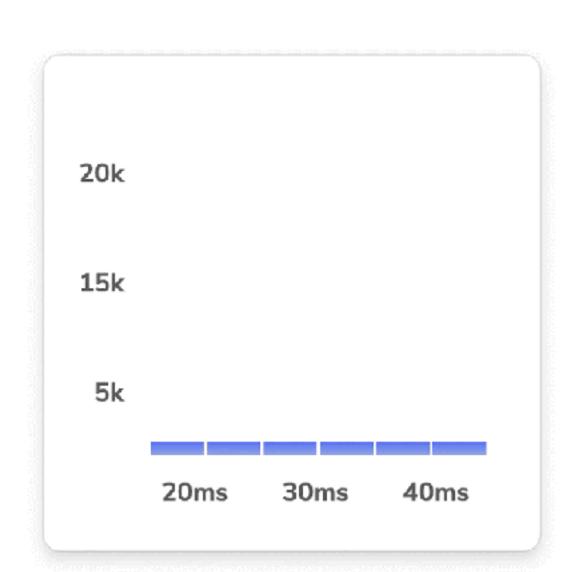
✓ should edit a task (135 ms)
                                                              <svg
                                                               aria-hidden="true"
Test Suites: 1 passed, 1 total
                                                               class="chakra-icon css-onkibi"
            3 passed, 3 total
Tests:
Snapshots: 0 total
            4.858 s, estimated 5 s
Time:
                                                            });
Ran all test suites.
                                                   66 |
Watch Usage: Press w to show more.
                                                            const task = getByRole('listitem', {
                                                 > 67
                                                              name: 'Fix bug in input error',
                                                   68
                                                   69 |
                                                            });
                                                            const taskInput = within(task).getByRole('textbox');
                                                   70 |
                                                   at Object.getElementError (node_modules/@testing-library/react/node_modules/@testing-library/dom/dist/conf
                                                   at node_modules/@testing-library/react/node_modules/@testing-library/dom/dist/query-helpers.js:90:38
                                                   at node_modules/@testing-library/react/node_modules/@testing-library/dom/dist/query-helpers.js:62:17
                                                   at getByRole (node_modules/@testing-library/react/node_modules/@testing-library/dom/dist/query-helpers.js:
                                                   at Object.<anonymous> (src/InboxScreen.test.js:67:18)
                                             Test Suites: 1 failed, 1 total
```



THE STORYBOOK WAY

Interaction tests

- Write tests in your stories file
- Powered by Testing Library & Jest
- Interactions panel visualizes all steps
- Step through the interactions
- Debug tests in the browser



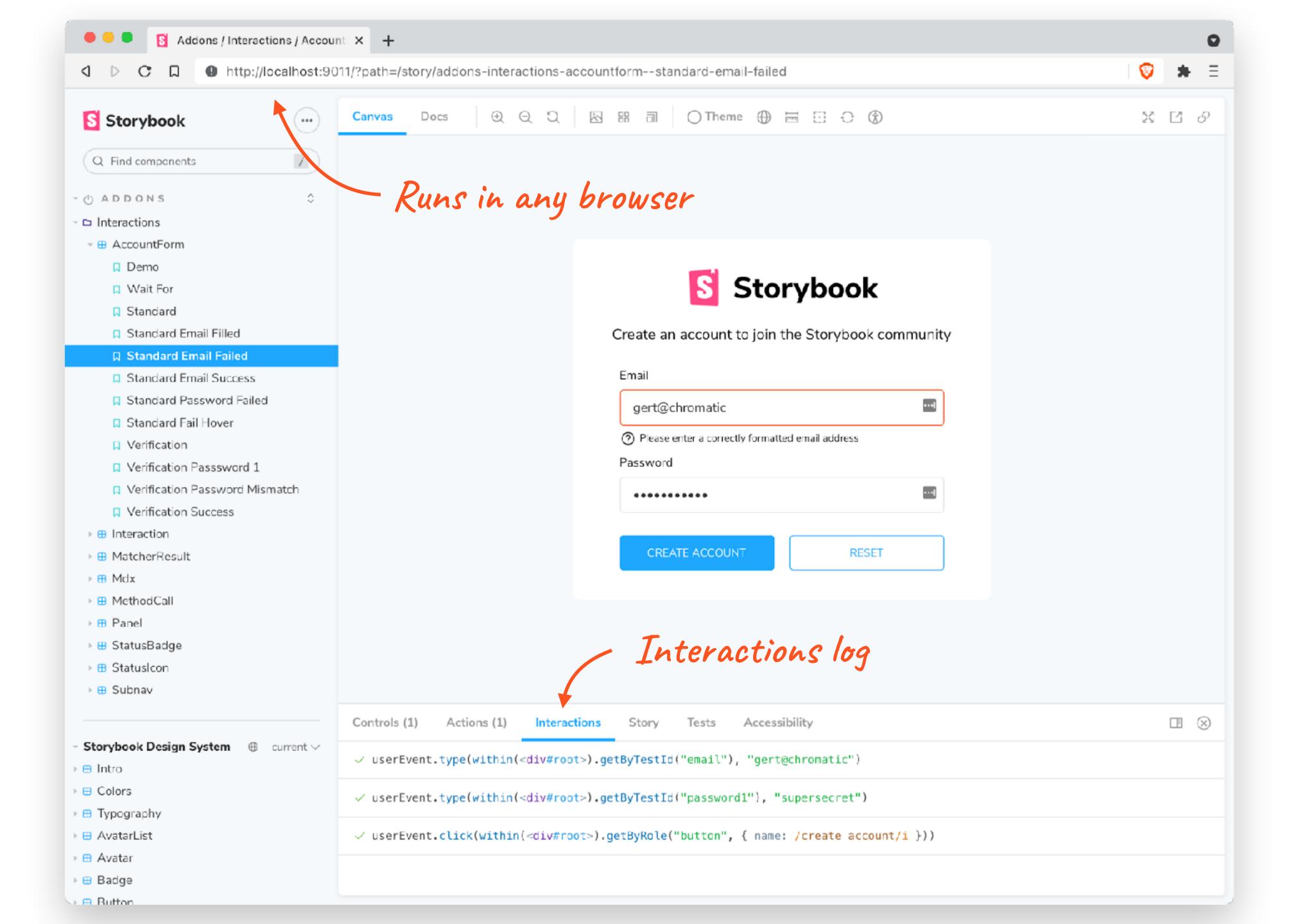


Storybook wrapper for Testing Library

```
import { within, userEvent } from '@storybook/testing-library'
import { SearchForm } from './SearchForm'
export default { component: SearchForm }
export const Submitted = {
 play: async ({ canvasElement }) \Rightarrow {
    const canvas = within(canvasElement);
    await userEvent.type(canvas.getByRole('searchbox'), 'query');
    await userEvent.click(canvas.getByRole('button', { name: 'Search' }));
```

Play function

Simulated events

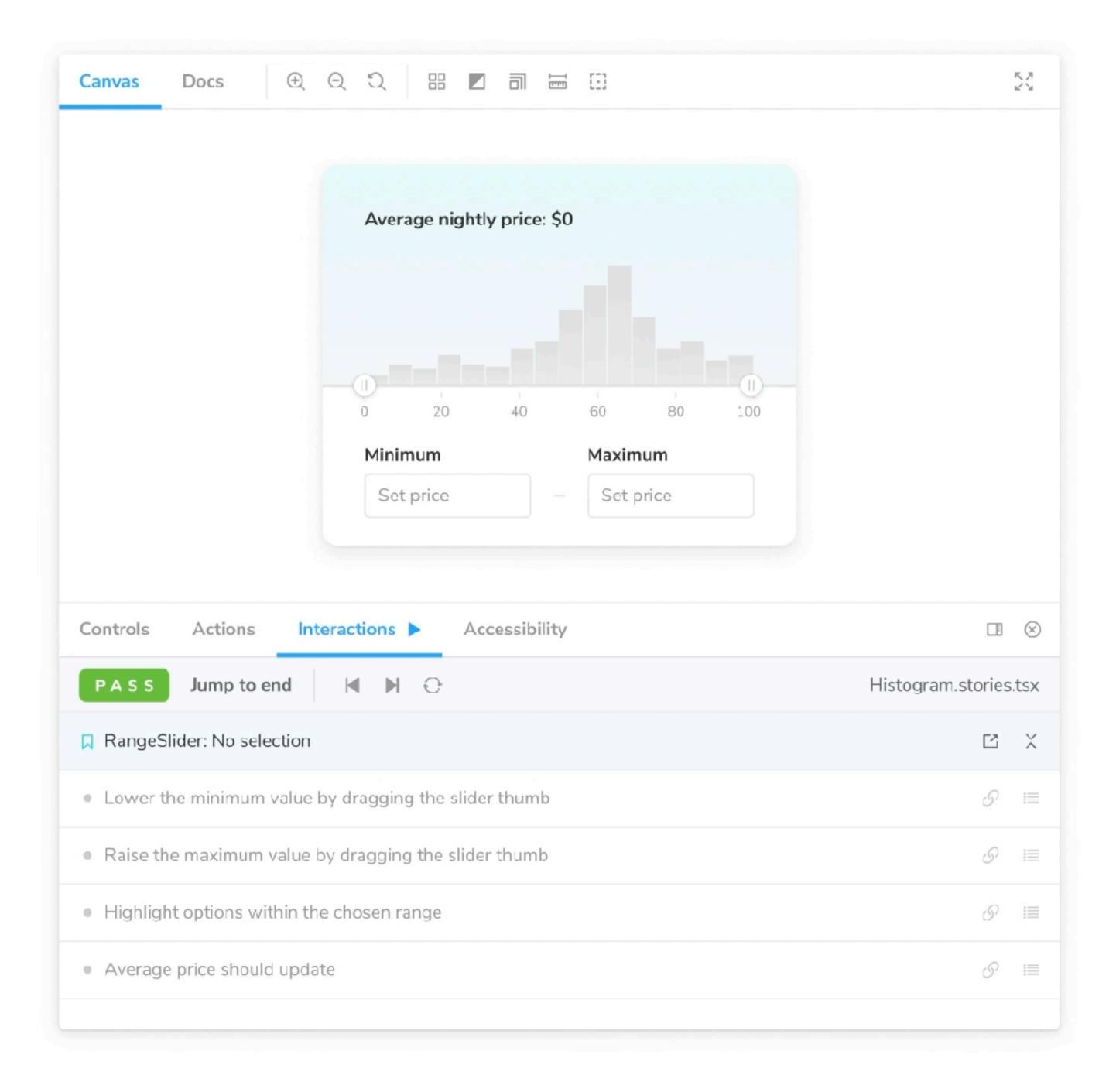


Storybook wrapper for Jest

```
import { expect } from '@storybook/jest'
import { within, userEvent } from '@storybook/testing-library'
import { SearchForm } from './SearchForm'
export default { component: SearchForm }
export const Submitted = {
  play: async ({ args, canvasElement }) \Rightarrow {
    const canvas = within(canvasElement);
    await userEvent.type(canvas.getByRole('searchbox'), 'query');
    await userEvent.click(canvas.getByRole('button', { name: 'Search' }));
    await expect(args.onSubmit).toHaveBeenCalledWith('query');
```

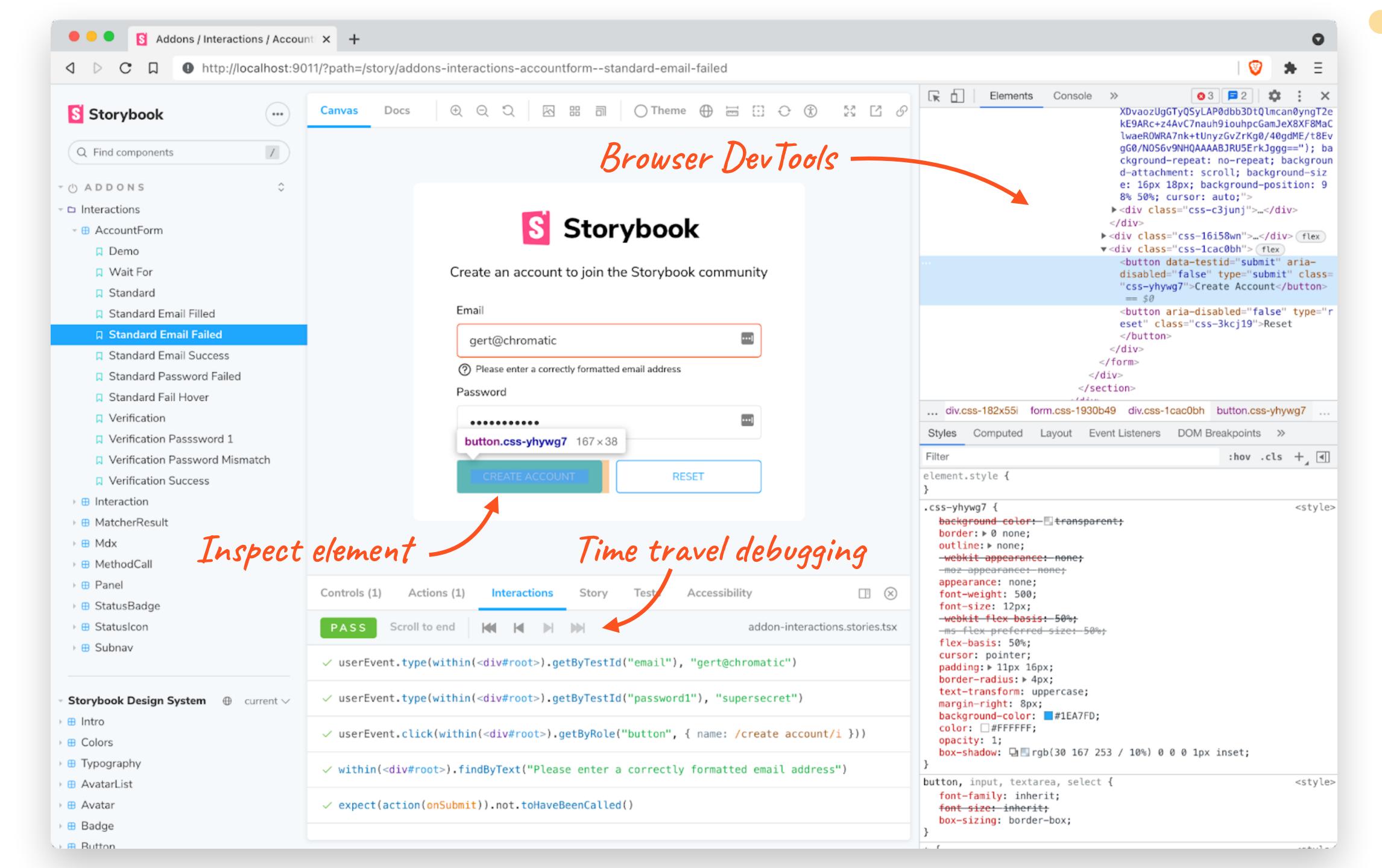
Assertion

Automatic spy on actions



Debug with playback controls

- Interactions panel visualizes steps
- Step through the interactions
- Debug tests in the browser



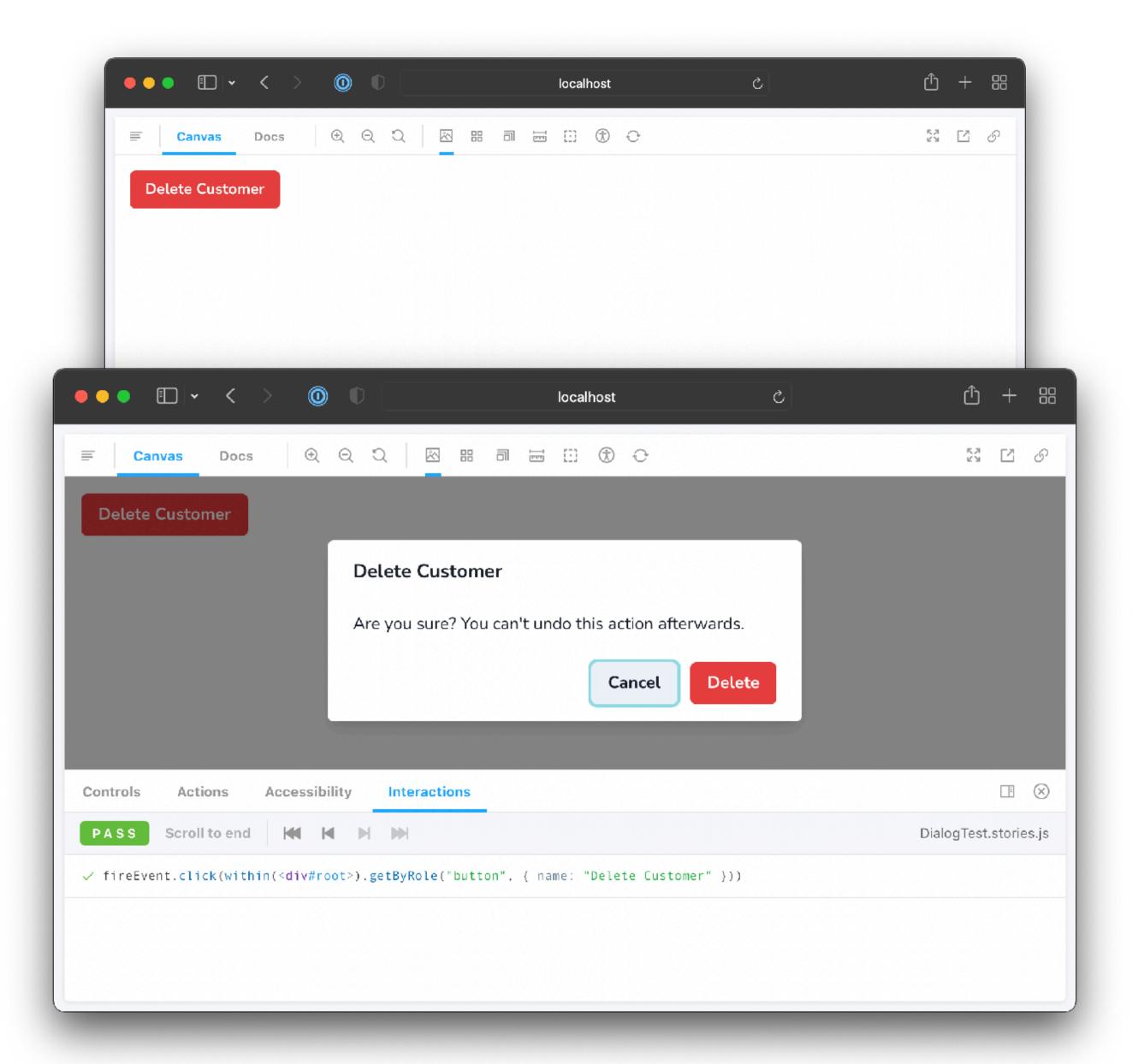
```
\bullet \bullet \bullet
$ test-storybook
page loaded in 640ms.
page loaded in 636ms.
page loaded in 655ms.
page loaded in 951ms.
       browser: chromium src/LoginScreen.stories.js
       browser: chromium src/components/Task.stories.js
 PASS
       browser: chromium src/components/TaskList.stories.js
 PASS
       browser: chromium src/InboxScreen.stories.js
Test Suites: 4 passed, 4 total
Tests:
             15 passed, 15 total
Snapshots: 0 total
             4.737 s, estimated 6 s
Time:
Ran all test suites.

☆ Done in 7.79s.

~/Documents/chromatic/ui-testing-guide-code test-runner* 8s
>
```

Execute tests with test runner

- Powered by Jest and Playwright
- Run tests in parallel via command line
- Watch mode, filters, etc.



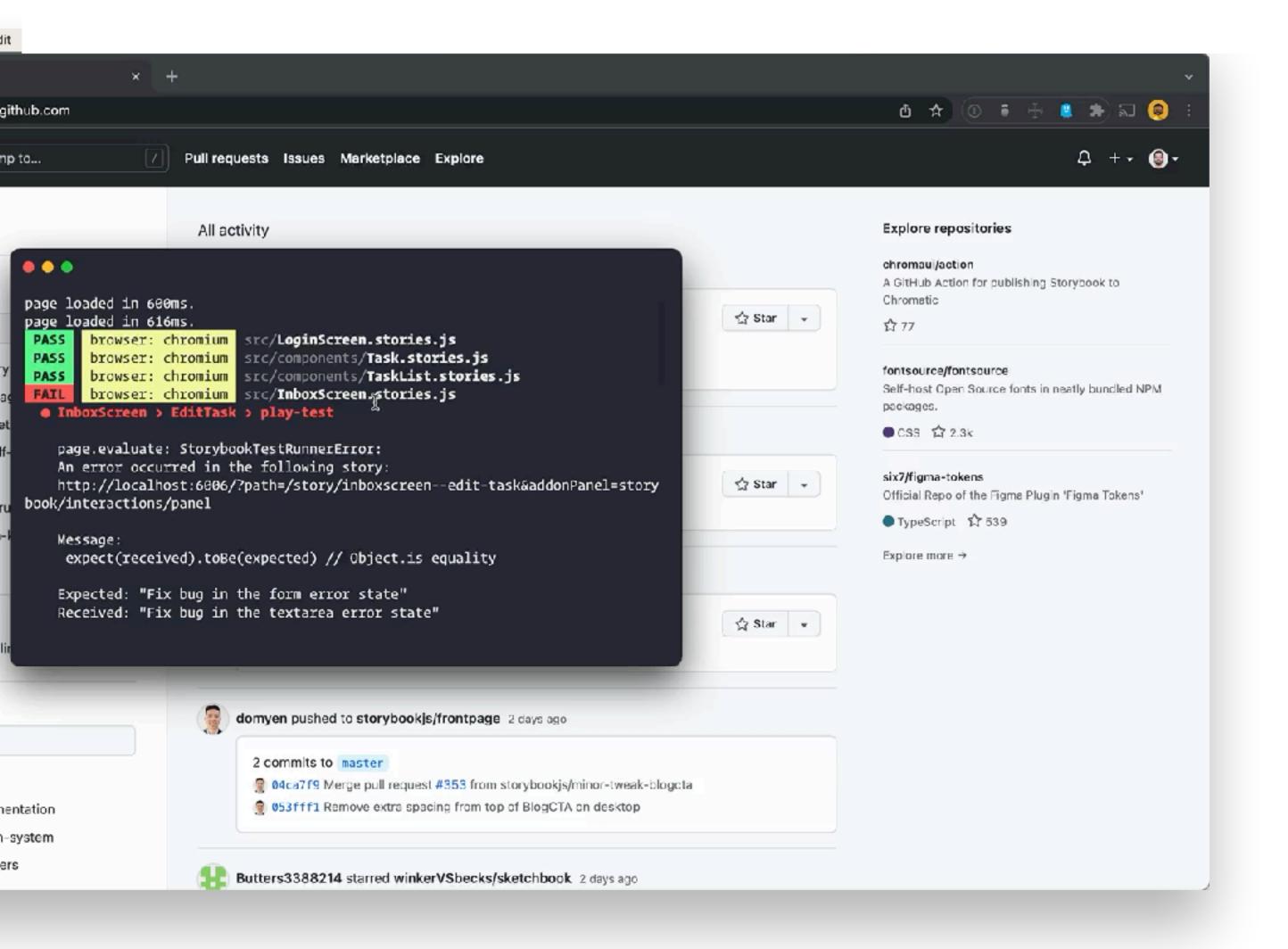
Test runner converts stories into tests

- Checks for rendering errors
- Verifies interactions and assertions



Cross-browser testing

Powered by Playwright so you can run cross-browser tests in parallel.



Click to debug

Launch and inspect a failing test in the browser

Works both locally and in Cl

```
.storybook/test-runner.js
module.exports = {
  setup() {
  },
  async preRender(page, context) {
  async postRender(page, context) {
  },
```

EXPERIMENTAL

Testing hooks

Customize or extend the test runner.

For example, capture snapshots or run accessibility checks.

```
.storybook/test-runner.js
const {
  injectAxe,
  checkAlly,
} = require('axe-playwright');
const config = {
  async preRender(page, context) {
    await injectAxe(page);
  },
  async postRender(page, context) {
    await checkAlly(page);
  },
};
module.exports = config;
```

EXPERIMENTAL

Accessibility testing with hooks

Can inject axe-playwright into each story and run accessibility checks.

```
node bin/te:
        brows
 PASS
        browse
 PASS
        browse
Test Suites:
Tests:
Snapshots:
Time:
Ran all test
Coverage file
--------
File
--------
All files
 atoms
  Button.js
 molecules
  Header.js
 pages
  Page.js
    Done in 5
```

28 29

30

};

```
All files / atoms Button.js
85.71% Statements 6/7 66.66% Branches 4/6 100% Functions 1/1
                                                                    85.71% Lines 6/7
Press n or j to go to the next uncovered block, b, p or k for the previous block.
          import React from "react";
          import PropTypes from "prop-types";
          import "./button.css";
          * Primary UI component for user interaction
          export const Button = ({ primary, backgroundColor, size, label, ...props }) => {
  9 21x
           const mode = primary
              ? "storybook-button--primary"
              : "storybook-button--secondary";
 11
 12
 13 21x
            if (props.loading) {
             return <div>Loading...</div>
 14
 15
 16
 17 21x
            return (
 18
              <button
 19
                type="button"
                className={["storybook-button", `storybook-button--${size}`, mode].join(
 20
 21
 22
                style={backgroundColor && { backgroundColor }}
 23
 24
                {...props}
 25
 26
                {label}
 27
              </button>
```

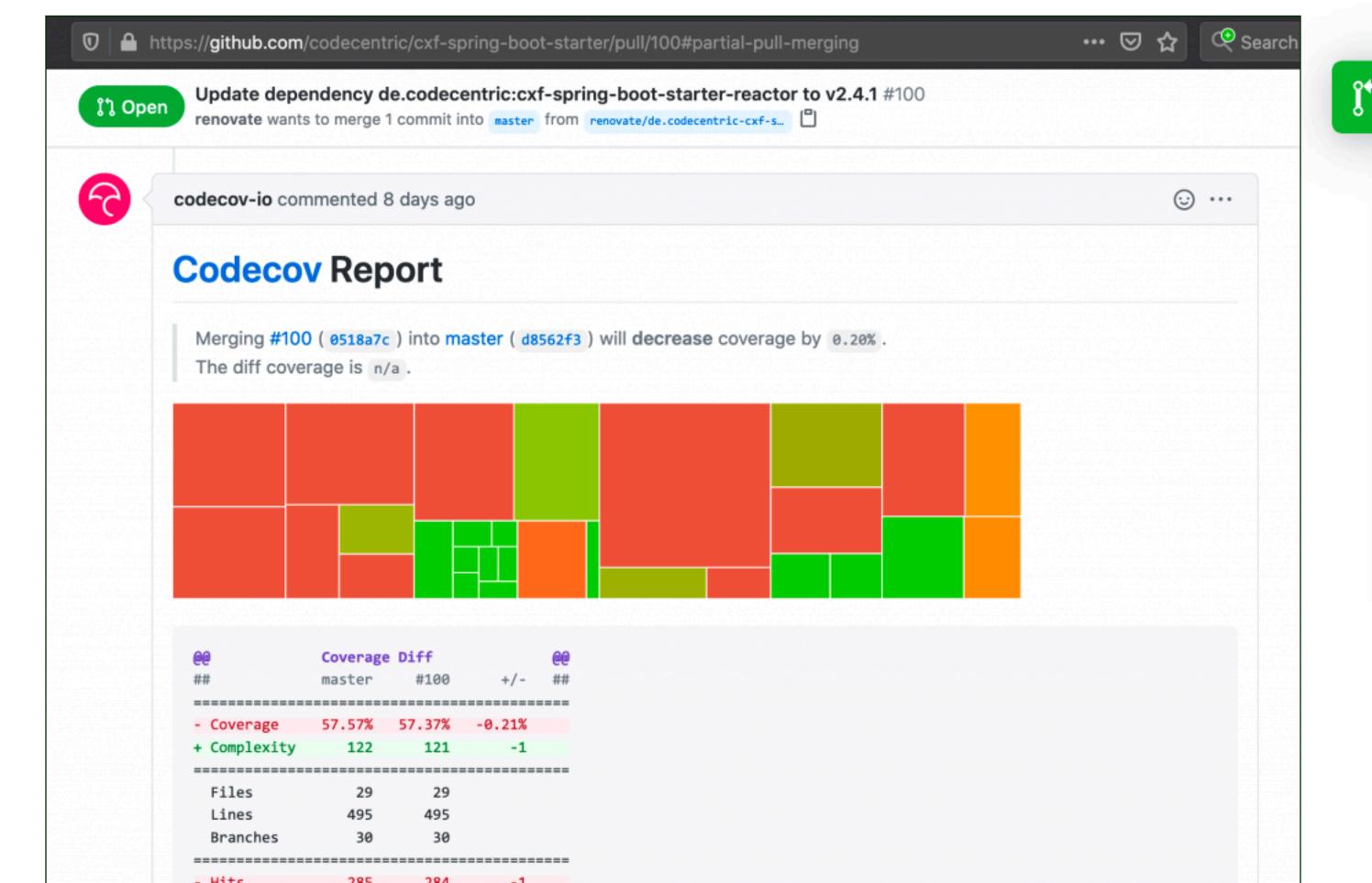
EXPERIMENTAL

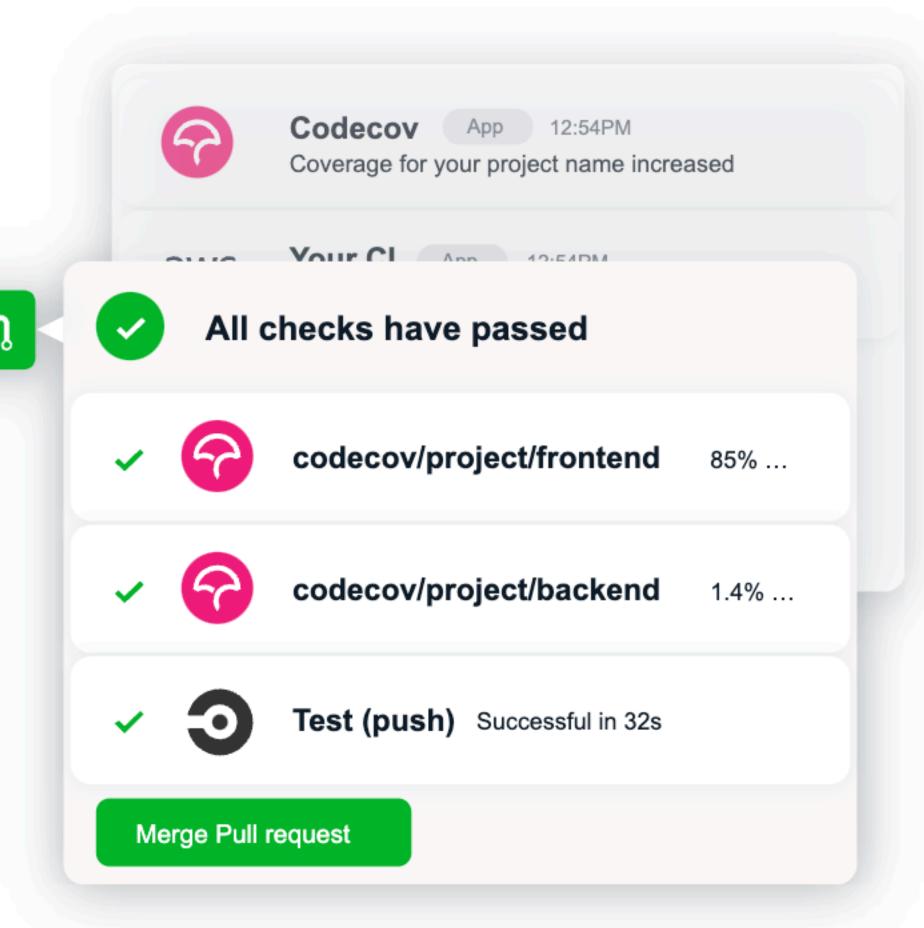
Code coverage reports

Displays what part of the code is executed (covered) after the tests run

Code coverage

Generated report can be used by external tools which can provide automated checks

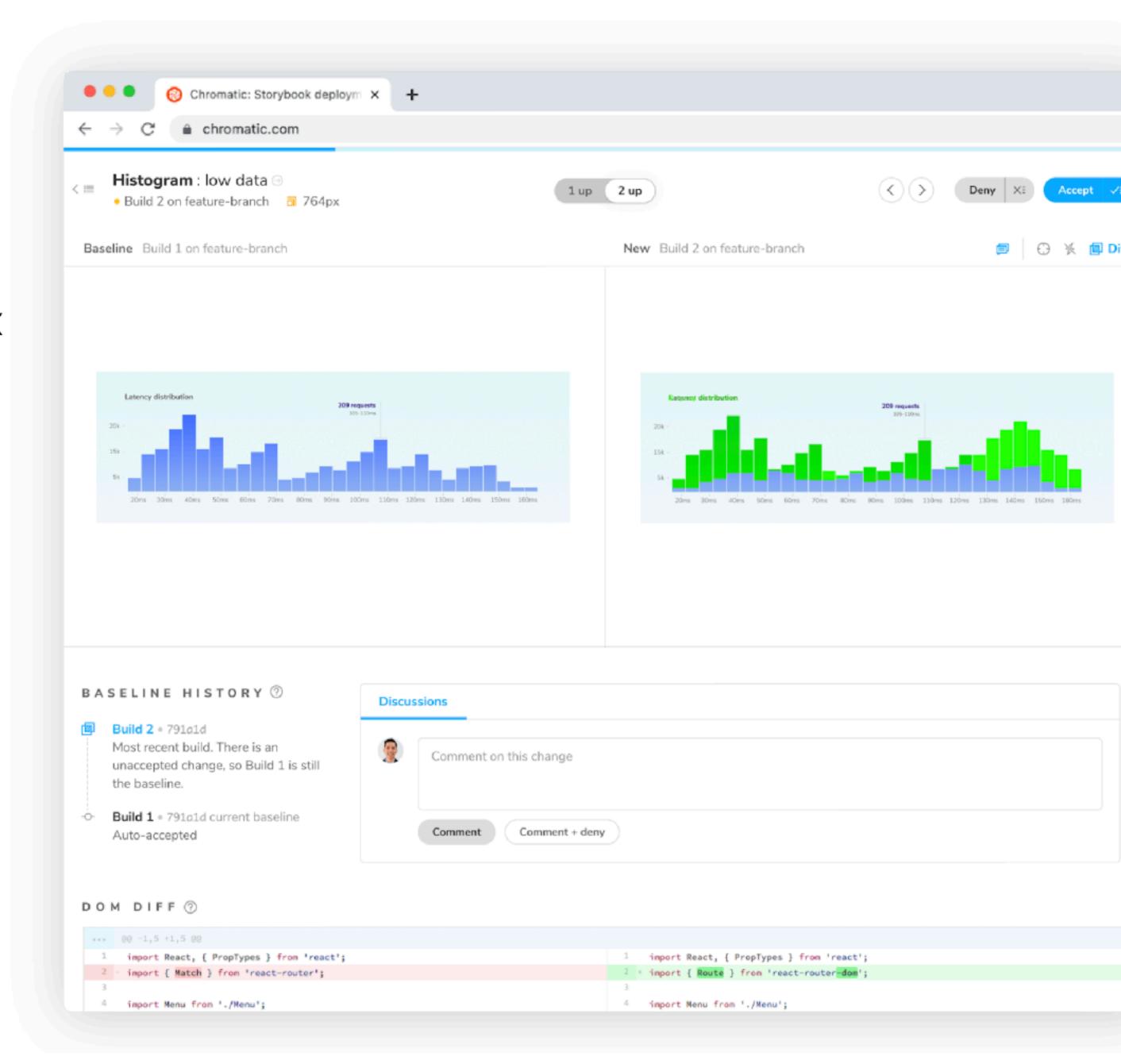


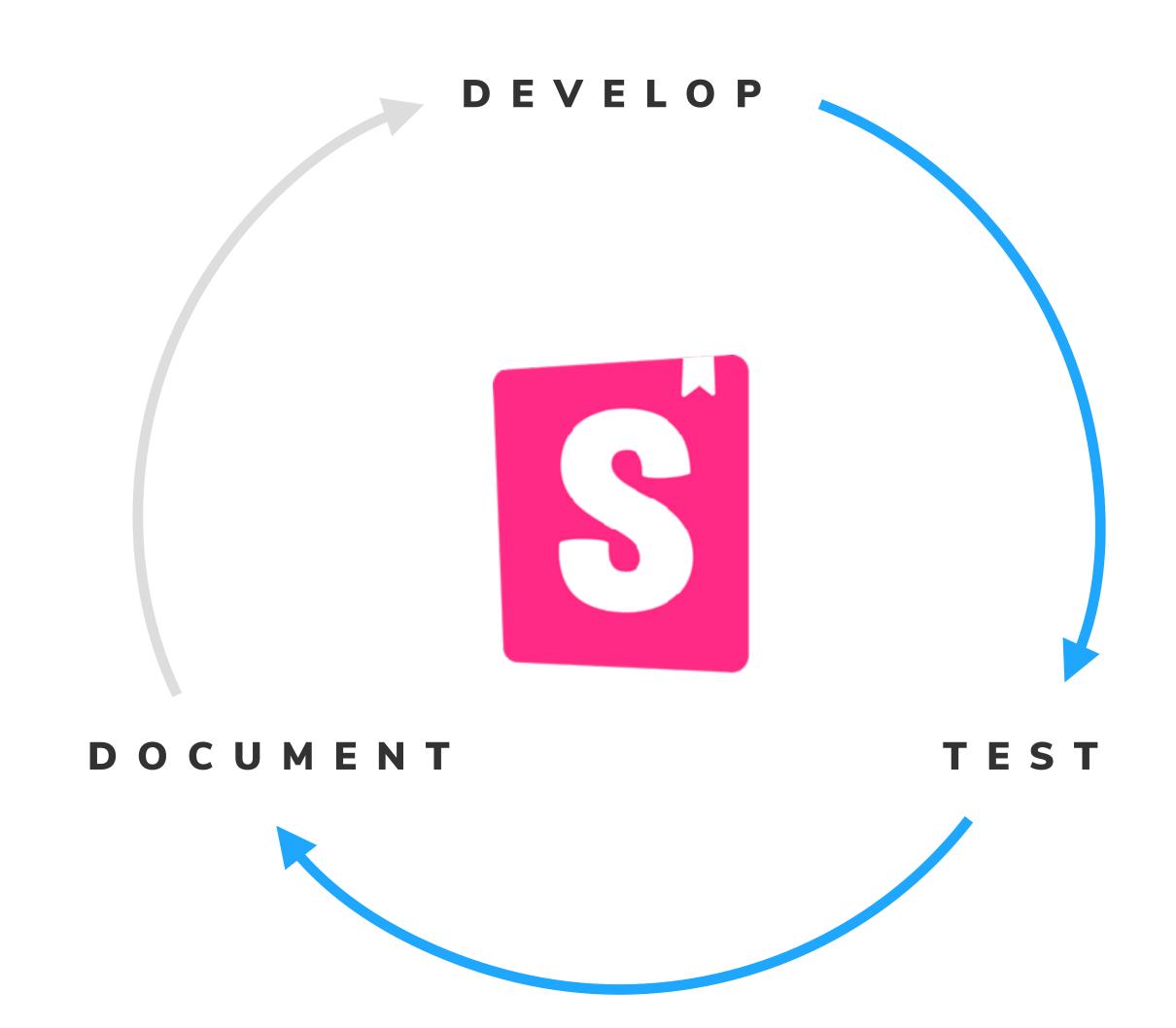




Automated workflows for Storybook to help teams ship UI faster

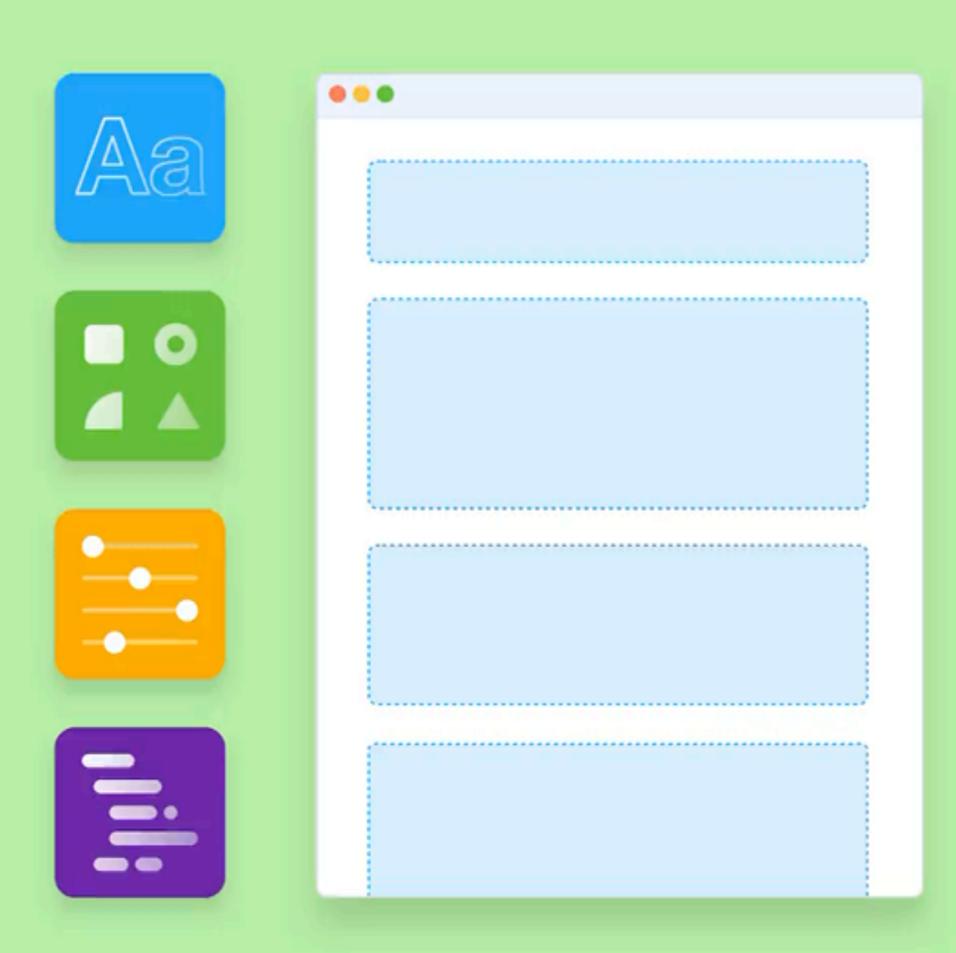
- **Publish** and share your Storybook
- Approve and track changes over time
- Visually review pull requests
- Gather feedback from stakeholders
- Sync status to GitHub, GitLab, Bitbucket





Document

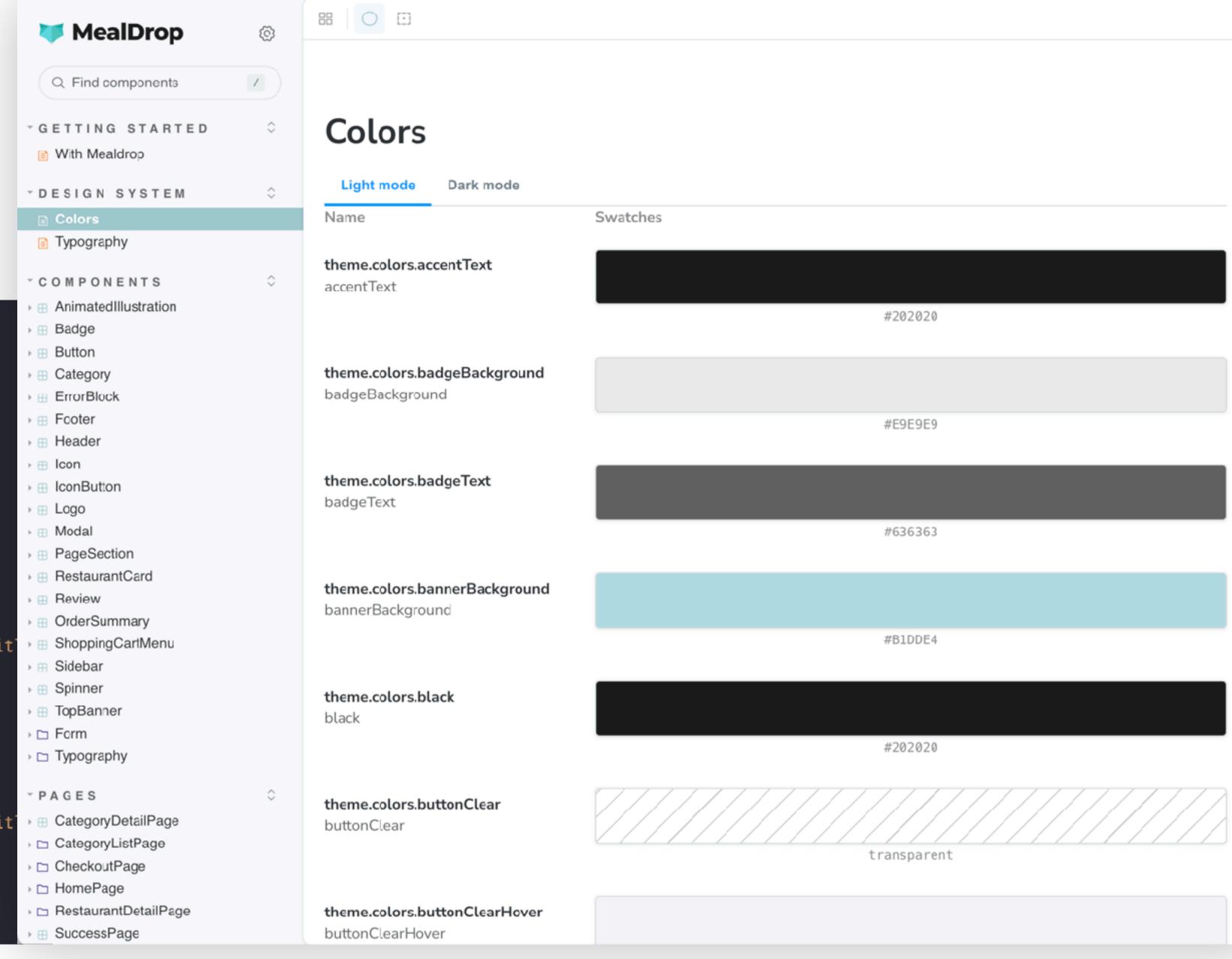
Kickstart your project's UI documentation with MDX 2 support, new architecture, streamlined UX, and readymade doc blocks.



Pages

Document design tokens, onboard users, and more

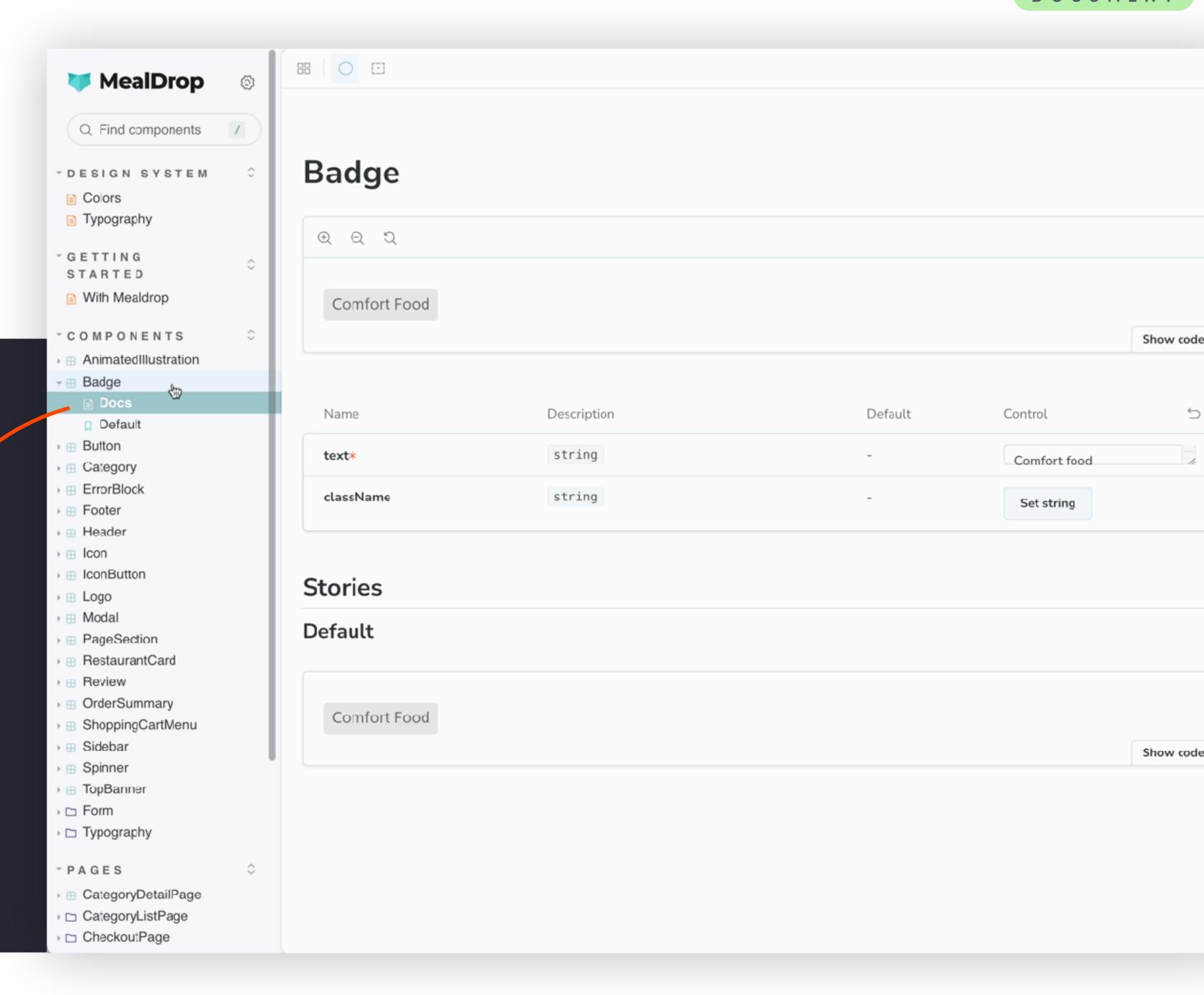
```
import { Meta, ColorPalette, ColorItem } from '@storybook/blocks'
import { TabsState } from '@storybook/components'
import { lightTheme, darkTheme } from '../styles/theme'
import { getColors } from './utils'
<Meta title="Design System/Colors" />
# Colors
<TabsState initial="light">
 <div id="light" title="Light mode">
    <ColorPalette>
      \{getColors(lightTheme).map((\{ name, value \}) \Rightarrow (
        <ColorItem key={name} title={`theme.colors.${name}`} subtit`
      ))}
    </ColorPalette>
 </div>
  <div id="dark" title="Dark mode">
    <ColorPalette>
      \{getColors(darkTheme).map((\{ name, value \}) \Rightarrow (
        <ColorItem key={name} title={`theme.colors.${name}`} subtit`
      ))}
    </ColorPalette>
 </div>
</TabsState>
```



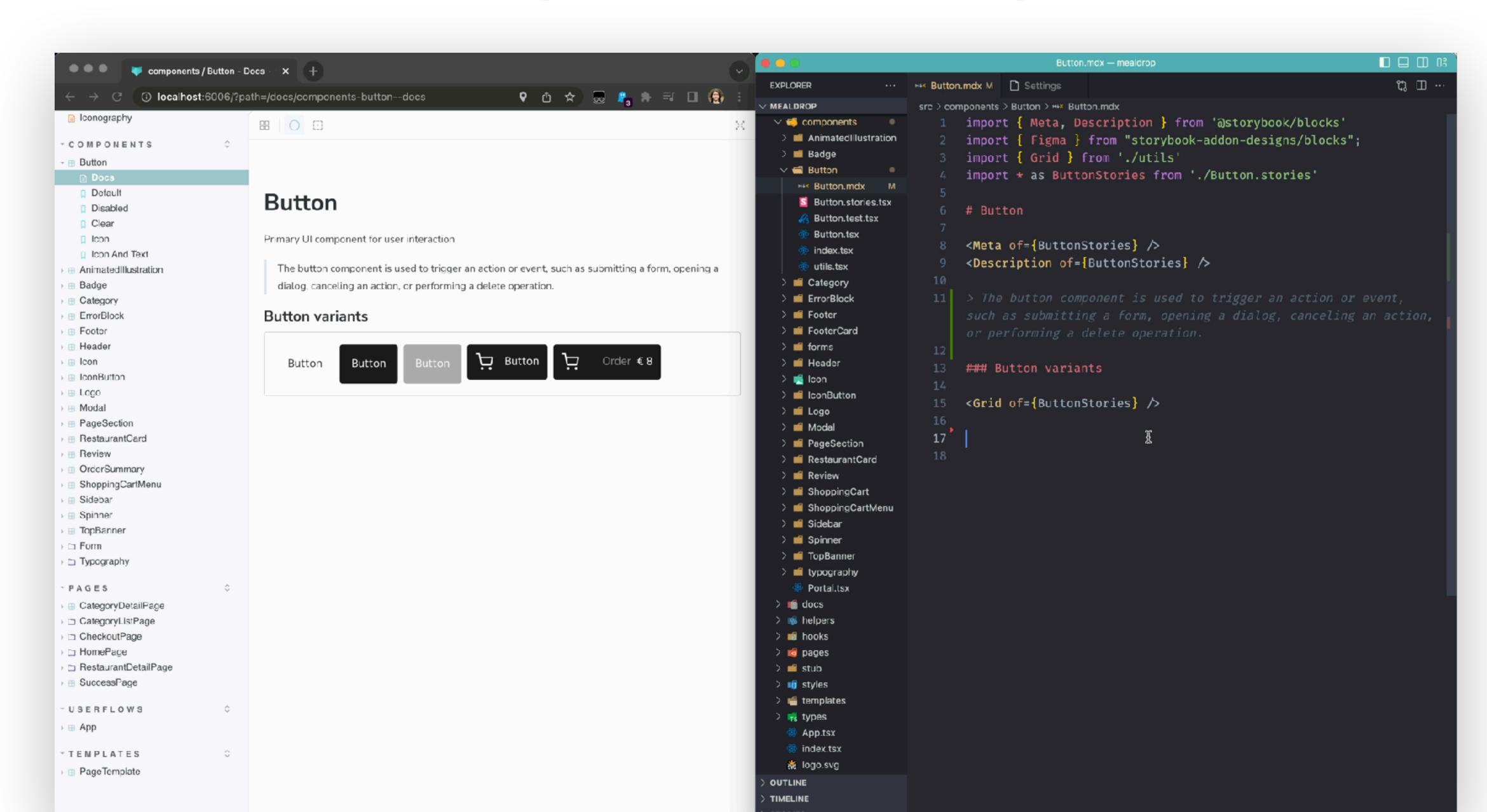
Autodocs

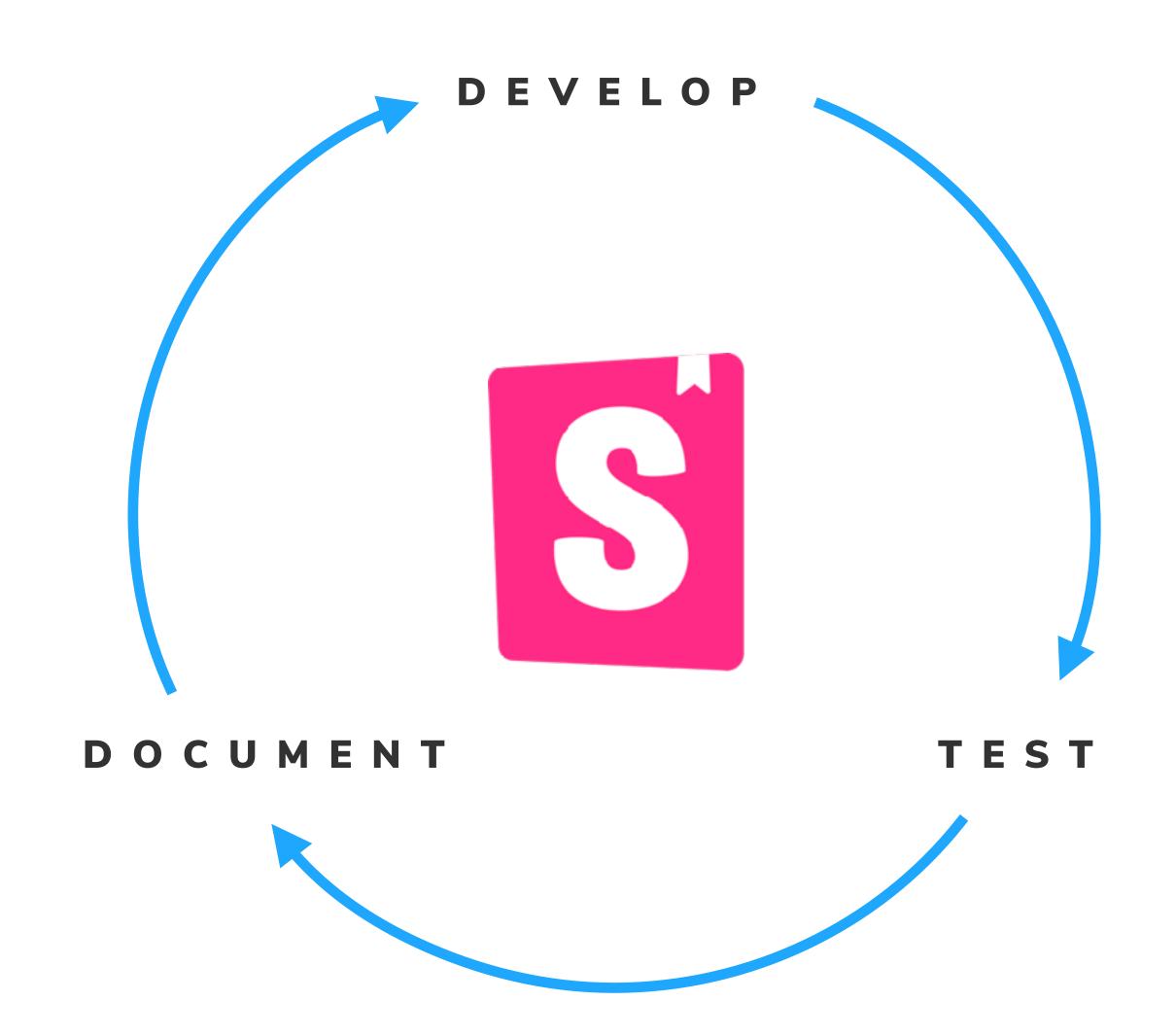
Automatically generate documentation pages

```
const config: StorybookConfig = {
  stories: [
    '../src/docs/Introduction.stories.mdx',
    '../src/docs/*.stories.mdx',
    '../src/**/*.stories.@(js|jsx|ts|tsx)',
    ' .. /src/**/*.mdx',
  addons: [
    '@storybook/addon-essentials',
    '@storybook/addon-interactions',
  staticDirs: ['../public'],
  framework: {
    name: '@storybook/react-vite',
    options: {},
  docs: {
    autodocs: true,
```

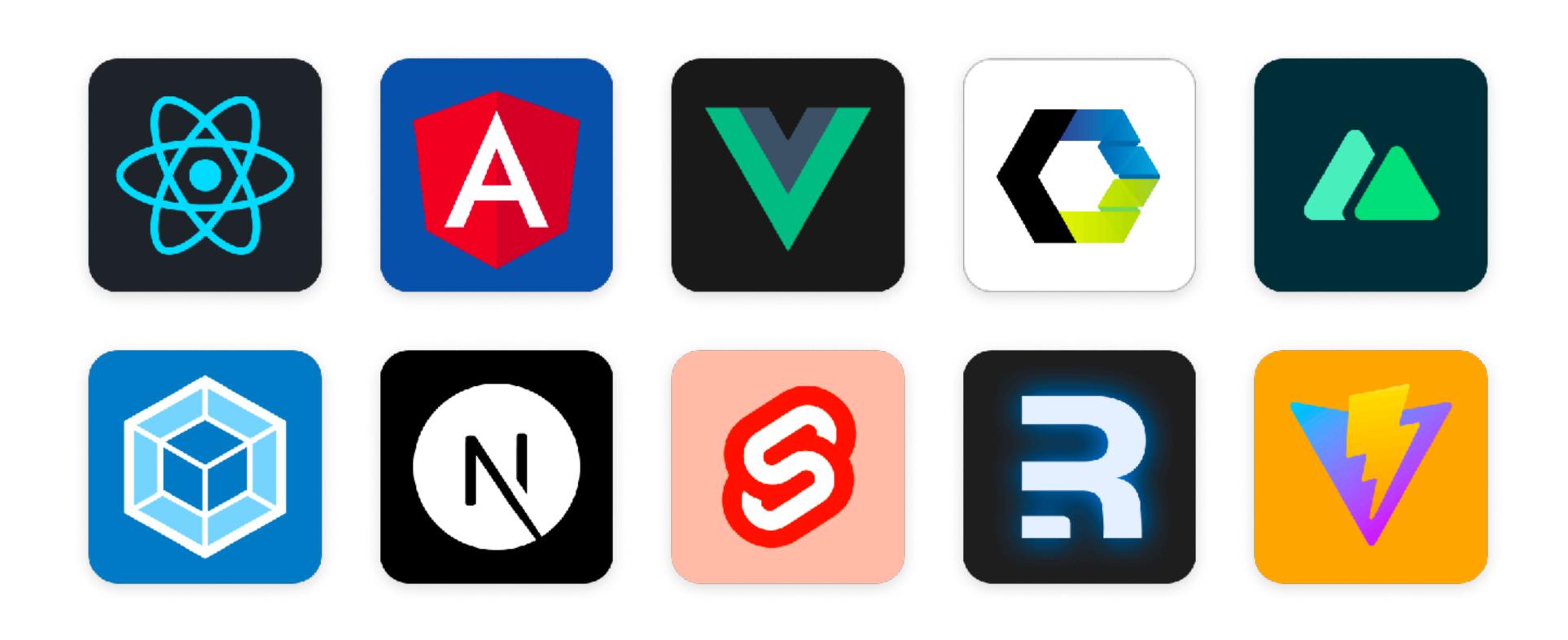


Fully custom MDX story

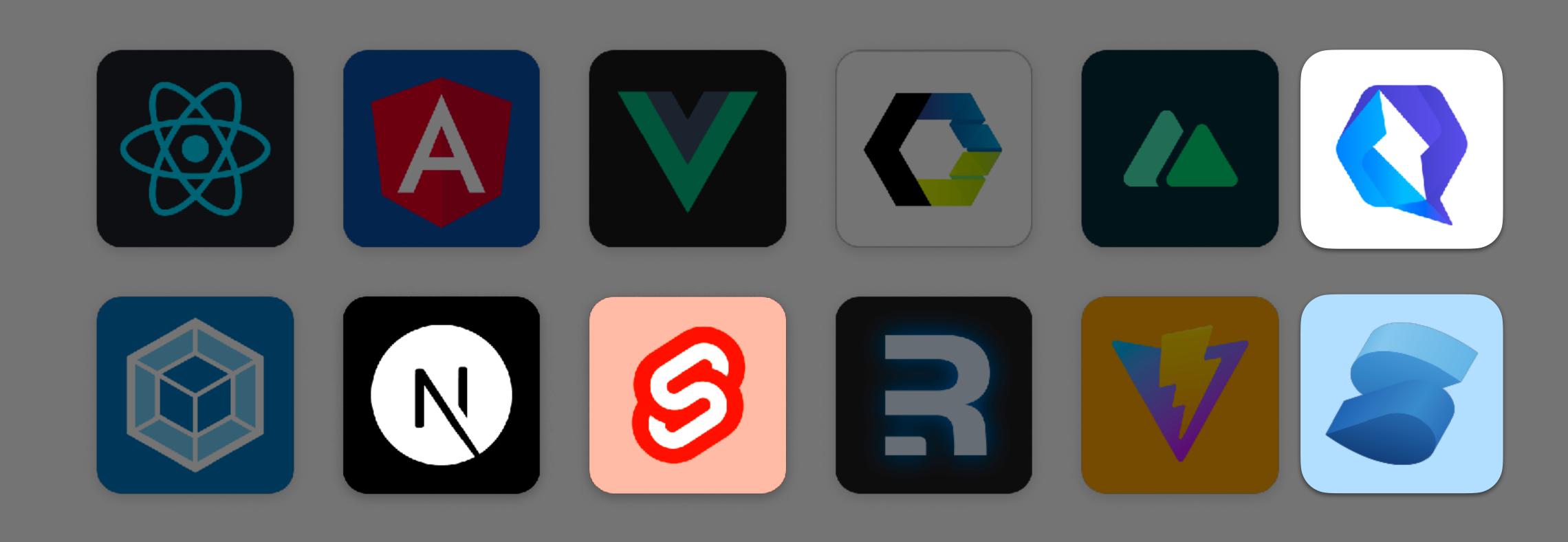




Toolset for the community to build their own Storybook integrations

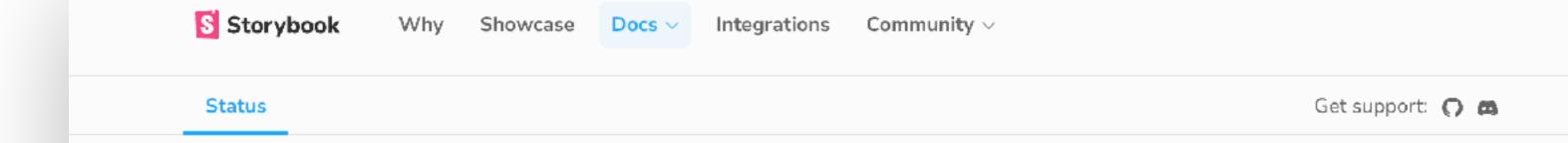


Toolset for the community to build their own Storybook integrations



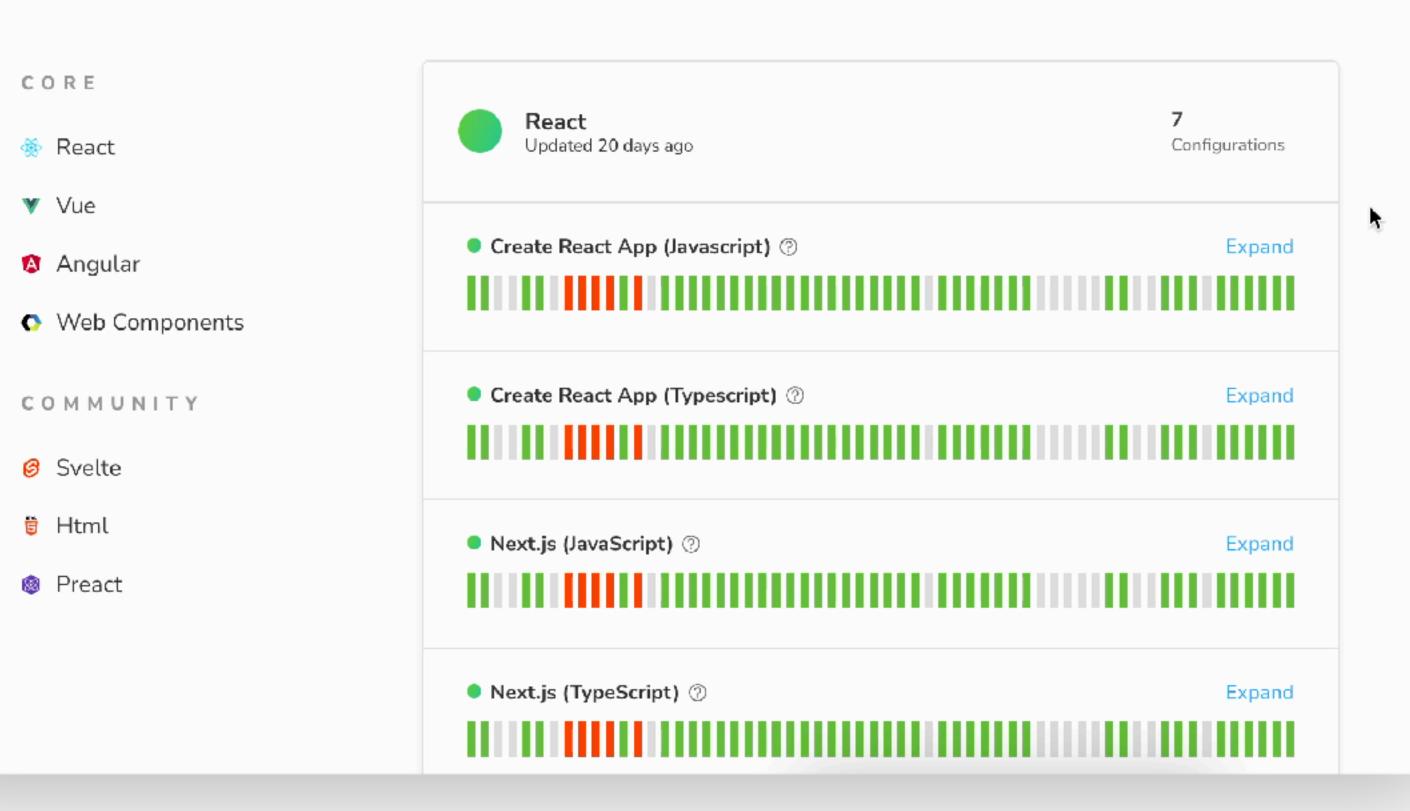
Ecosystem CI

Dozens of framework configs heavily tested daily



Status page

Welcome to Storybook's status page! Each status bar represents the daily CI status for a particular framework integration on Storybook's next branch. Click on a bar to see its details and the specific Storybook version that was tested.



Storybook 7 brings hundreds of improvements

You can try it today

Initialize a new Storybook in your project:

npx storybook@latest init

Upgrade + migrate an existing Storybook:

npx storybook@latest upgrade



GOTO Guide



Remember to rate this session

THANK YOU!





#GOTOams