



TWO SIDES OF THE SAME COIN

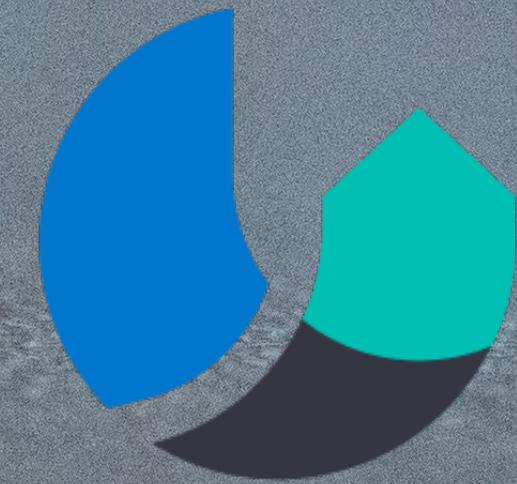
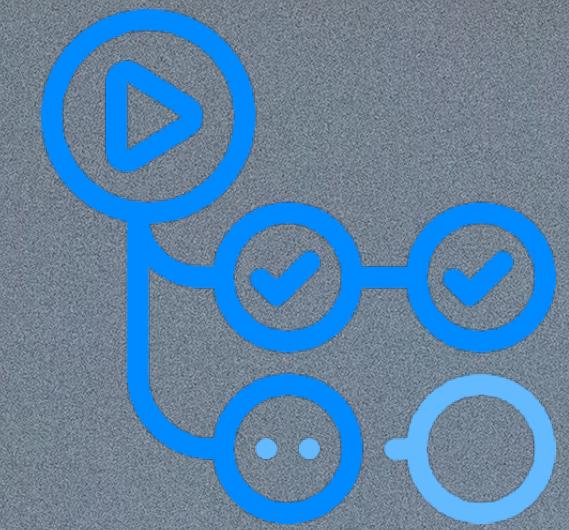
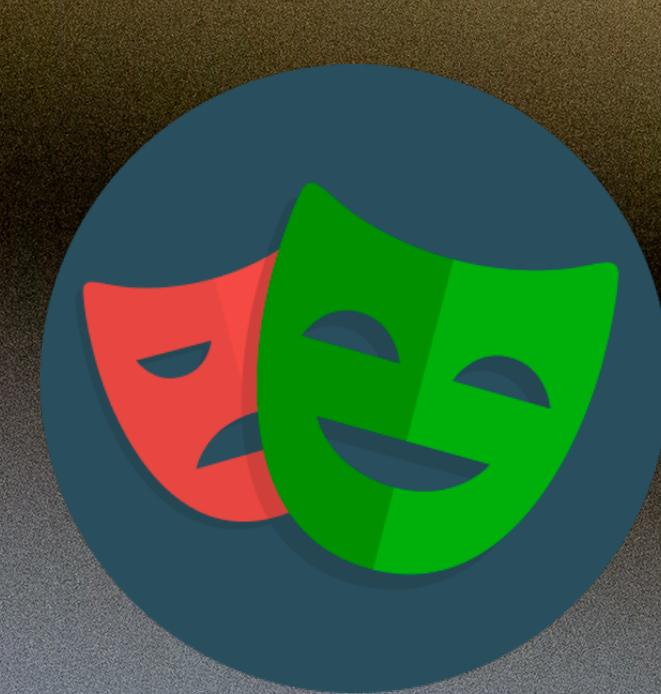
TESTING AND MONITORING WITH SYNTHETIC MONITORING

CARLY RICHMOND

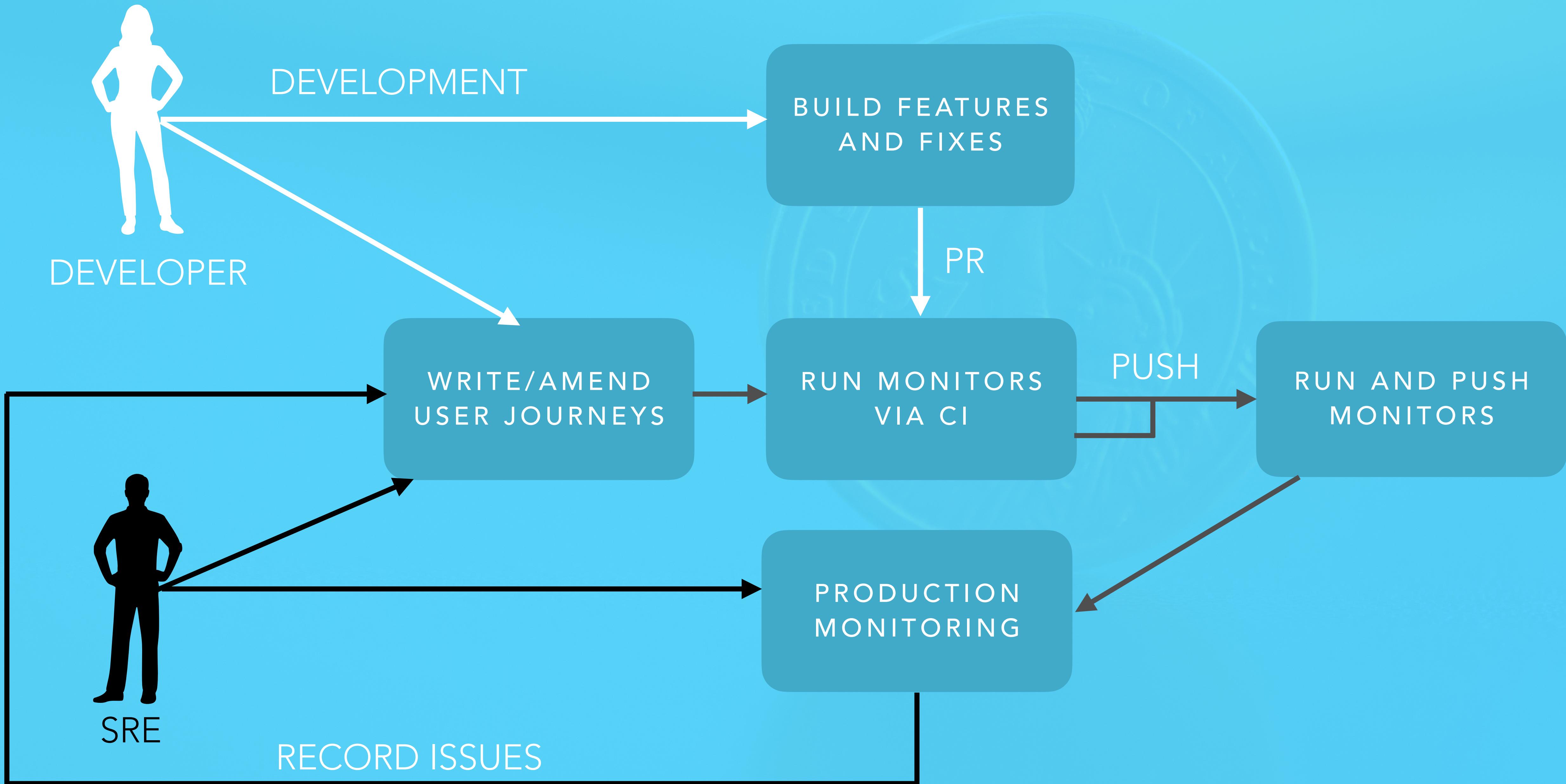


e2e Testing

Synthetic
Monitoring



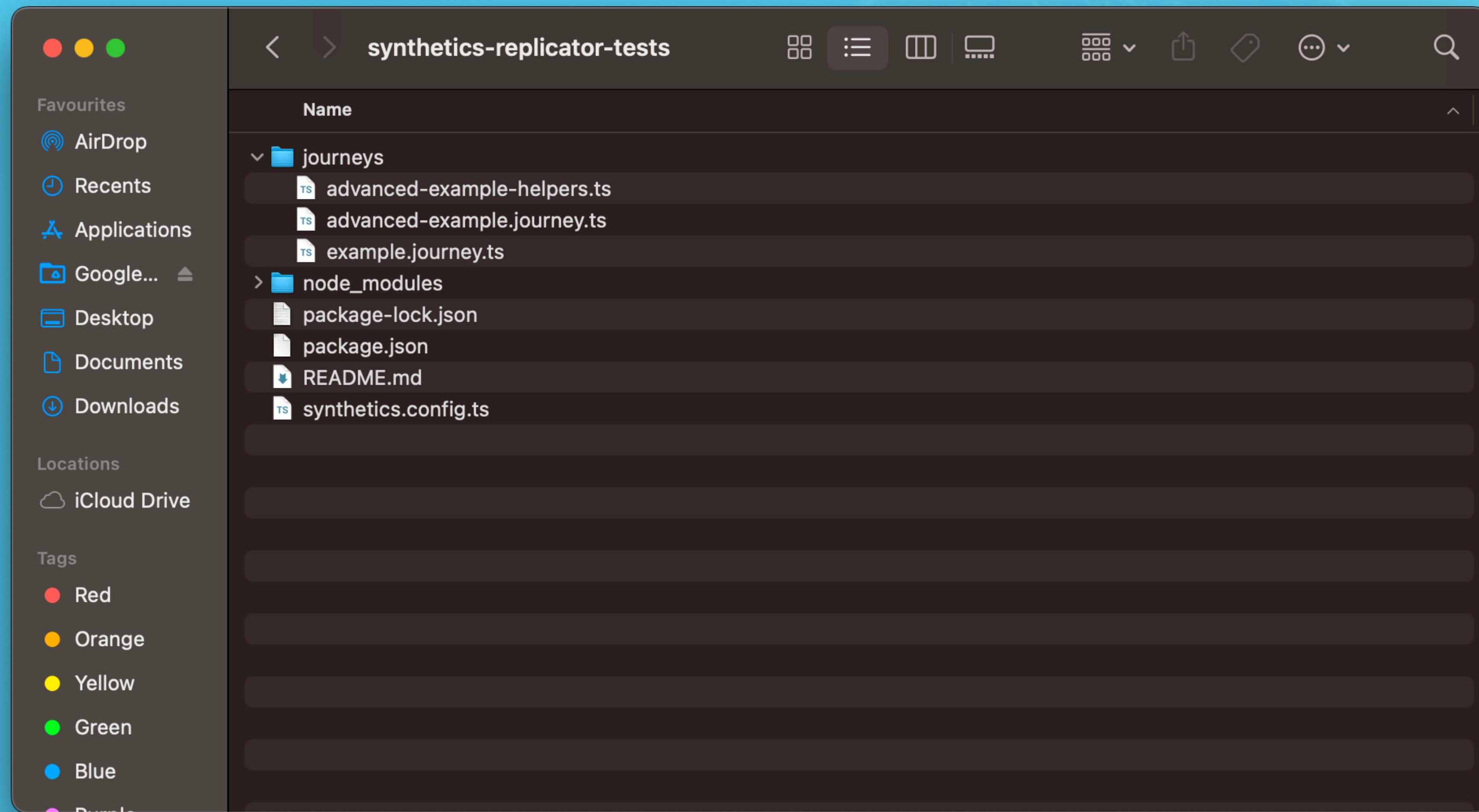
<https://ela.st/synthetics-replicator>





synthetics-replicator - -zsh

```
> npm install -g @elastic/synthetics
> npx @elastic/synthetics -h
> npx @elastic/synthetics init synthetics-replicator-
test
```





synthetics.config.ts

```
1 import type { SyntheticsConfig } from '@elastic/synthetics';
2
3 export default env => {
4   const config: SyntheticsConfig = {
5     params: {
6       url: 'http://localhost:5173',
7     },
8     playwrightOptions: {
9       ignoreHTTPSErrors: false,
10    },
11   /**
12    * Configure global monitor settings
13   */
14   monitor: {
15     schedule: 10,
16     locations: ['united_kingdom'],
17     privateLocations: [''],
18   },
19   /**
20    * Project monitors settings
21   */
22   project: {
23     id: 'synthetics-replicator-tests',
24     url: 'https://my-elastic-deployment:port',
25     space: 'default',
26   },
27 };
28 if (env === 'production') {
29   config.params = { url: 'https://synthetics-replicator.app/' }
30 }
31 return config;
32 };
33
```





orders.journey.ts

```
1 import { journey, step, monitor, expect, before } from '@elastic/synthetics';
2
3 journey('Replicator Order Journey', ({ page, params }) => {
4   // Only relevant for the push command to create
5   // monitors in Kibana
6   monitor.use({
7     id: 'synthetics-replicator-monitor',
8     schedule: 10,
9   });
10
11 before(async ()=> {
12   await page.goto(params.url);
13 });
14
15 step('assert home page loads', async () => {
16   const header = await page.locator('h1');
17   expect(await header.textContent()).toBe('Replicatr');
18 });
19
20 step('assert move to order page', async () => {
21   const orderButton = await page.getByTestId('order-button');
22   await orderButton.click();
23
24   const url = page.url();
25   expect(url).toContain('/order');
26
27   const menuTiles = await page.getByTestId('menu-item-card');
28   expect(await menuTiles.count()).toBeGreaterThan(2);
29 });
30
31 step('assert adding to order', async () => {
32   const addItemButtons = await page.getByTestId('add-item-button');
33   expect(await addItemButtons.count()).toBeGreaterThan(10);
34
35   const cartCount = await page.getByTestId('cart-count-label');
36   expect(await cartCount.innerText()).toBe('0');
37
38   await addItemButtons.first().click();
39   expect(await cartCount.innerText()).toBe('1');
40
41   await addItemButtons.nth(4).click();
42   await addItemButtons.last().click();
43   expect(await cartCount.innerText()).toBe('3');
44 });
45 });
```





synthetics-replicator — zsh — 99x27

```
carly.richmond@Carlys-MBP synthetics-replicator % npm run test

> synthetics-replicator@0.0.0 test
> cd apps/synthetics-replicator-tests && npm run test

> synthetics-replicator-tests@1.0.0 test
> npx @elastic/synthetics journeys

Journey: Replicator Order Journey
  ✓ Step: 'launch application' succeeded (2030 ms)
  ✓ Step: 'assert home page loads' succeeded (48 ms)
  ✓ Step: 'assert move to order page' succeeded (132 ms)
  ✓ Step: 'assert adding to order' succeeded (150 ms)

Journey: Recorded Order journey
  ✓ Step: 'Go to order items page' succeeded (1752 ms)
  ✓ Step: 'Add item to cart successfully' succeeded (99 ms)
  ✓ Step: 'Add 2nd item to cart successfully' succeeded (66 ms)
  ✓ Step: 'Add 3rd item to cart successfully' succeeded (67 ms)

8 passed (5388 ms)
```

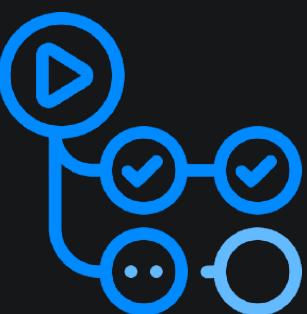
carly.richmond@Carlys-MBP synthetics-replicator %





push-build-test-synthetics-replicator.yml

```
1 name: Push Workflow- Elastic Synthetics With Svelte Replicator
2 on:
3   push:
4     branches: [main, master]
5 jobs:
6   test:
7     env:
8       NODE_ENV: development
9     runs-on: ubuntu-latest
10  steps:
11    - uses: actions/checkout@v3
12    - uses: actions/setup-node@v3
13      with:
14        node-version: 18
15    - run: npm install
16    - run: npm start &
17    - run: "npm install @elastic/synthetics && SYNTHETICS_JUNIT_FILE='junit-synthetics.xml'
  npx @elastic/synthetics . --reporter=junit"
18      working-directory: ./apps/synthetics-replicator-tests/journeys
19    - name: Publish Unit Test Results
20      uses: EnricoMi/publish-unit-test-result-action@v2
21      if: always()
22      with:
23        junit_files: '**/junit-*.xml'
24        check_name: Elastic Synthetics Tests
25 push:
26   env:
27     NODE_ENV: production
28     SYNTHETICS_API_KEY: ${{ secrets.SYNTHETICS_API_KEY }}
29 needs: test
30 defaults:
31   run:
32     working-directory: ./apps/synthetics-replicator-tests
33   runs-on: ubuntu-latest
34 steps:
35   - uses: actions/checkout@v3
36   - uses: actions/setup-node@v3
37     with:
38       node-version: 18
39   - run: npm install
40   - run: npm run push
```



 Observability

Overview

Alerts

Cases

Logs

Stream

Anomalies

Categories

Infrastructure

Inventory

Metrics Explorer

APM

Services

Traces

Dependencies

Service Map

Uptime

Monitors

TLS Certificates

User Experience

Dashboard

Monitors

Last 15 minutes

1 m

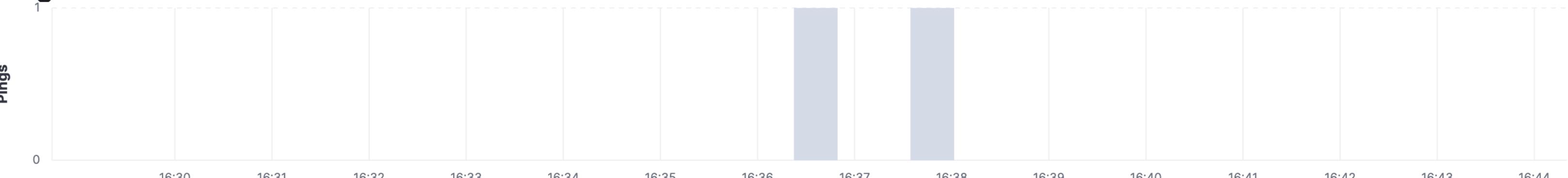
Refresh

Search by monitor ID, name, or url (E.g. http://)

Location 1 Port 1 Scheme 1 Tag 0

2 Monitors

- Down 0
- Up 2

Pings over time**Monitors**

All Up Down

Status	Name	Url	Tags	TLS Certificate	Downtime history	Status alert	Test now
Up in 1/1 location, Checked 4:38:10 PM	Recorded Order journey Browser	https://synthetics-replicator.netlify.app/	--	--	<input type="checkbox"/>	D	v
Up in 1/1 location, Checked 4:37:10 PM	Replicator Order Journey Browser	https://synthetics-replicator.netlify.app/	--	--	<input type="checkbox"/>	D	v

Rows per page: 10

< >

 **Observability**

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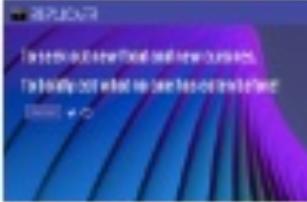
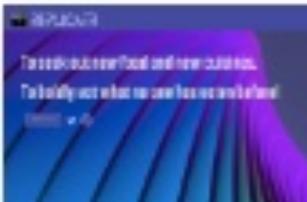
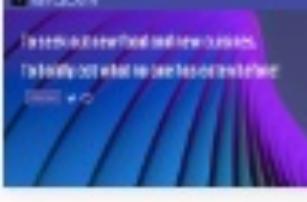
Monitors

TLS Certificates 

Replicator Order Journey

< Previous check 3:33

3 Steps - 2 succeeded

Status	Step name	Step duration	View performance breakdown
1. Succeeded	 launch application	 1.9 seconds	View performance breakdown
2. Succeeded	 assert home page loads	 1.9 seconds	View performance breakdown
3. Failed	 assert move to order page	 1.9 seconds	View performance breakdown

Error message

page.getByTestId is not a function

Script executed at this step

```
async () => {
  const orderButton = await page.getByTestId("order-button");
  await orderButton.click();
  const url = page.url();
  (0, synthetics_1.expect)(url).toContain("/order");
  const menuTiles = await page.getByTestId("menu-item-card");
  (0, synthetics_1.expect)(await menuTiles.count()).toBeGreaterThan(2);
}
```

Step duration trend



@CarlyLRichmond

Do it together
Never alone

A close-up photograph of a person's left hand held open palm-up. Two silver coins are resting on the palm. The coin on top is a 2011 Polish one-złoty coin, featuring the coat of arms of Poland. The coin below it is a 2014 Polish one-złoty coin, also featuring the coat of arms of Poland.

<https://ela.st/synthetics-replicator>

<https://ela.st/synthetics-replicator-blog>