# HOW TO GET YOUR PRODUCT OWNERS TO WRITE YOUR FUNCTIONAL TESTS

# AKA

# USING GIVEN / WHEN / THEN WITH CYPRESS

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# WHO ARE YOU?
# CALLUM SILCOCK
## FRONTEND PLATFORM ENGINEER @ ATTEST (CONTRACT)
## HTTPS://CSI.LK || GITHUB.COM/CSI-LK
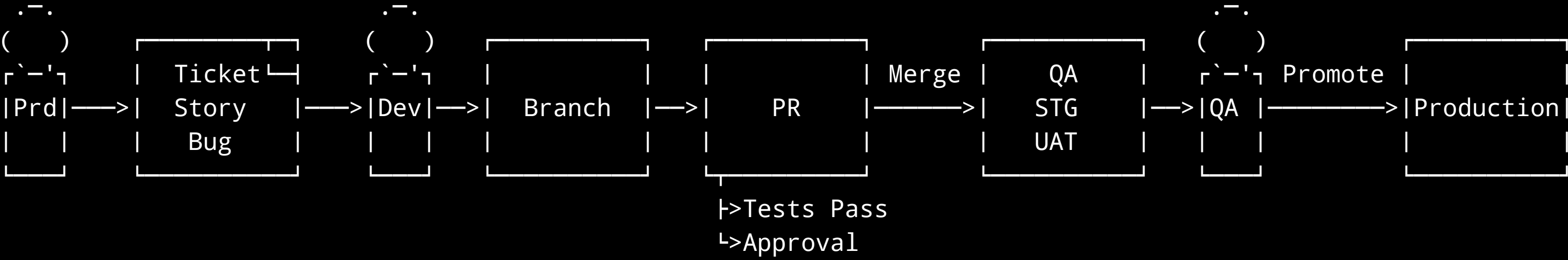
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"dartah" = data
"rehpo" = repo

# WHAT ARE WE TRYING TO SOLVE?

```
 ._.                                      ._.                                                                                             ._.
(   )                  ┌──────────┐       (   )      ┌──────────┐       ┌──────────┐          | Merge  ┌──────────┐                     (   )    Promote ┌──────────┐
┌`-'┐                  |  Ticket└─┤       ┌`-'┐      |          |       |          |          |        |    QA    |                     ┌`-'┐            |          |
|Prd|────>|            |  Story   |──>|Dev|──>|  Branch  |──>|    PR    |────────>|   STG    |──>|QA |──────────>|Production|
|   |                  |  Bug     |       |   |      |          |       |          |          |        |   UAT    |                     |   |            |          |
└──┘                   └──────────┘       └──┘       └──────────┘       └──────────┘          |        └──────────┘                     └──┘            └──────────┘
                                                                       ├>Tests Pass
                                                                       └>Approval
```

```
describe('logging in', () => {
    it('logs in, () => {
        cy.visit('http://localhost:3000/login');
        cy.get('email').type('contact@csi.lk');
        cy.get('password').type('hunter2');
        cy.get('input[type="button"]').click();
        cy.url().should('be', 'http://localhost:3000/dashboard');
    });
});
```

```gherkin
Feature: Testing

  Ewww regression

  Scenario: Lack of automation
      Given I am a Frontend Developer
      When I am forced to manually test
      Then kill me
```

```gherkin
Feature: Logging In

  Tests the user can successfully login and log out

  Scenario: Logging In Sucessfully
    Given I am on the "login" page
    When I input my "email" as "contact@csi.lk"
    And I input my "password" as "hunter2"
    And I click the "login" button
    Then I should be on the "dashboard" page
```

```
# Given I am on the "login" page

import { Given } from "cypress-cucumber-preprocessor/steps"

Given(`I am on the {string} page`, target => {
  cy.visit(`https://localhost:3000/${target.toLowerCase()}`)
})
```

```jsx
<input
  type="email"
  name="email"
  placeholder="Email"
  data-qa="input-email"
/>
<input
  type="password"
  name="password"
  placeholder="Password"
  data-qa="input-password"
/>
<button
  data-qa="button-login"
  onClick={() => {
    setAuthentication(true)
    history.push("/dashboard")
  }}
>
  Log In
</button>
```

```
// Then the "navigation logout" button should "not" "exist"

Then(`the {string} button should {string} {string}`, (id, assert, assertion) =>
  cy.get(`[data-qa="${type}-${id.replace(" ", "-").toLowerCase()}"]`).should(assert, assertion)
  //cy.get([data-qa="button-navigation-logout"]).should("not", "exist")
)


// Reuse!

// Then the "login" button should "be" "disabled"
```

```
 .-.                              .-.                              .-.
(   )          ┌──────────┐      (   )          ┌──────────┐      (   )          ┌──────────┐
┌`-'┐          |  Ticket └─┐     ┌`-'┐          |          |     ┌`-'┐          |          |      Merge     ┌──────────┐
|Prd|───>|  Story    |──>|QA |──>|  Branch  |──>|Dev|──>|    PR    |────────────────>|Production|
|   |          |          |      |   |          |          |     |   |          |          |          |          |          |
└───┘          └──────────┘      └───┘          └──────────┘     └───┘          └──────────┘          |          └──────────┘
                                                                                ├>Tests Pass     |
                                                                                ├>Approval       |          ┌──────────┐
                                                                                └>Canary for UAT └──────>| .feature |
                                                                                                              | static   |
                                                                                                              | site     |
                                                                                                              └──────────┘
```
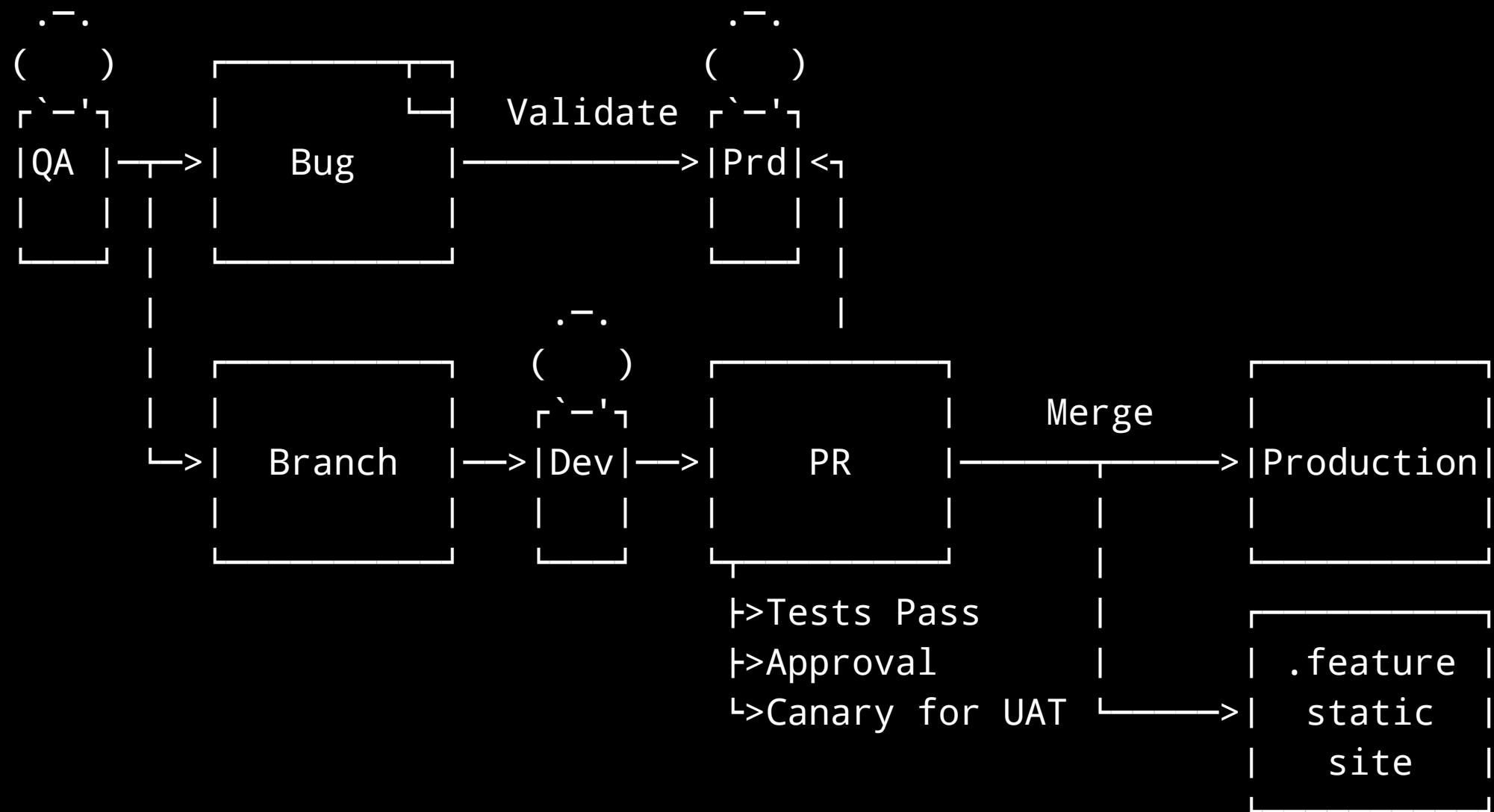
```
     .-.                                        .-.
    (   )        ┌───────────┐                  (   )
    ┌`-'┐        |           ┌─┐  Validate      ┌`-'┐
    |QA |───┬──>|    Bug     |─────────────>|Prd|<┐
    |   | | |    |           |                  |   | | |
    └───┘ |     └───────────┘                  └───┘ |
          |                                          |
          |                    .-.                   |
          |     ┌───────────┐ (   )  ┌───────────┐   |
          |     |           | ┌`-'┐  |           |  Merge
          └──>|  Branch    |─>|Dev|─>|    PR     |─────────┬──>|Production|
                |           |  |   |  |           |         |
                └───────────┘ └───┘  └───────────┘         |
                                      ├>Tests Pass         |
                                      ├>Approval            |
                                      └>Canary for UAT └────────>| .feature |
                                                                 |  static  |
                                                                 |   site   |
```

```
 ┌─────────┐                         ┌─────────┐            .-.
 |  new    |    parse .feature(s)    | Static  |          |(    )|wow!
 | .feature|────────────────────────>|  Site   |          |┌`-'┐|
 |  test   |                         |Generator|          └|Prd|┘
 └─────────┘  ┌─────────┐            └─────────┘           |   |
      |       | Cypress |                 |                 └───┘
      ├──────>|Dashboard|<──────┐         |                   |
      |       |         |       |         |                   |
      |       └─────────┘       |         ▼                   |
      |                         |    ┌────────┐          ┌─────────┐
      |       ┌─────────┐    |read|  └  rsync |  s3     |
      |       | Visual  |       ├───────|output|───────>|bucket |
      └──────>|Regression|<──────┘      |        |       | serve |
      |       |         |               └────────┘       └─────────┘
      |       └─────────┘
```
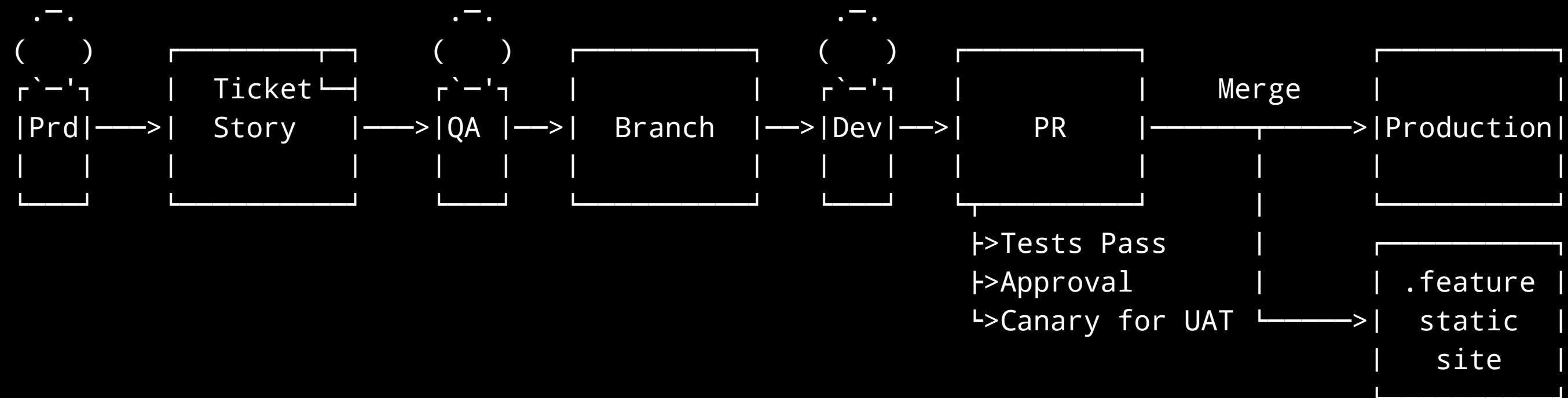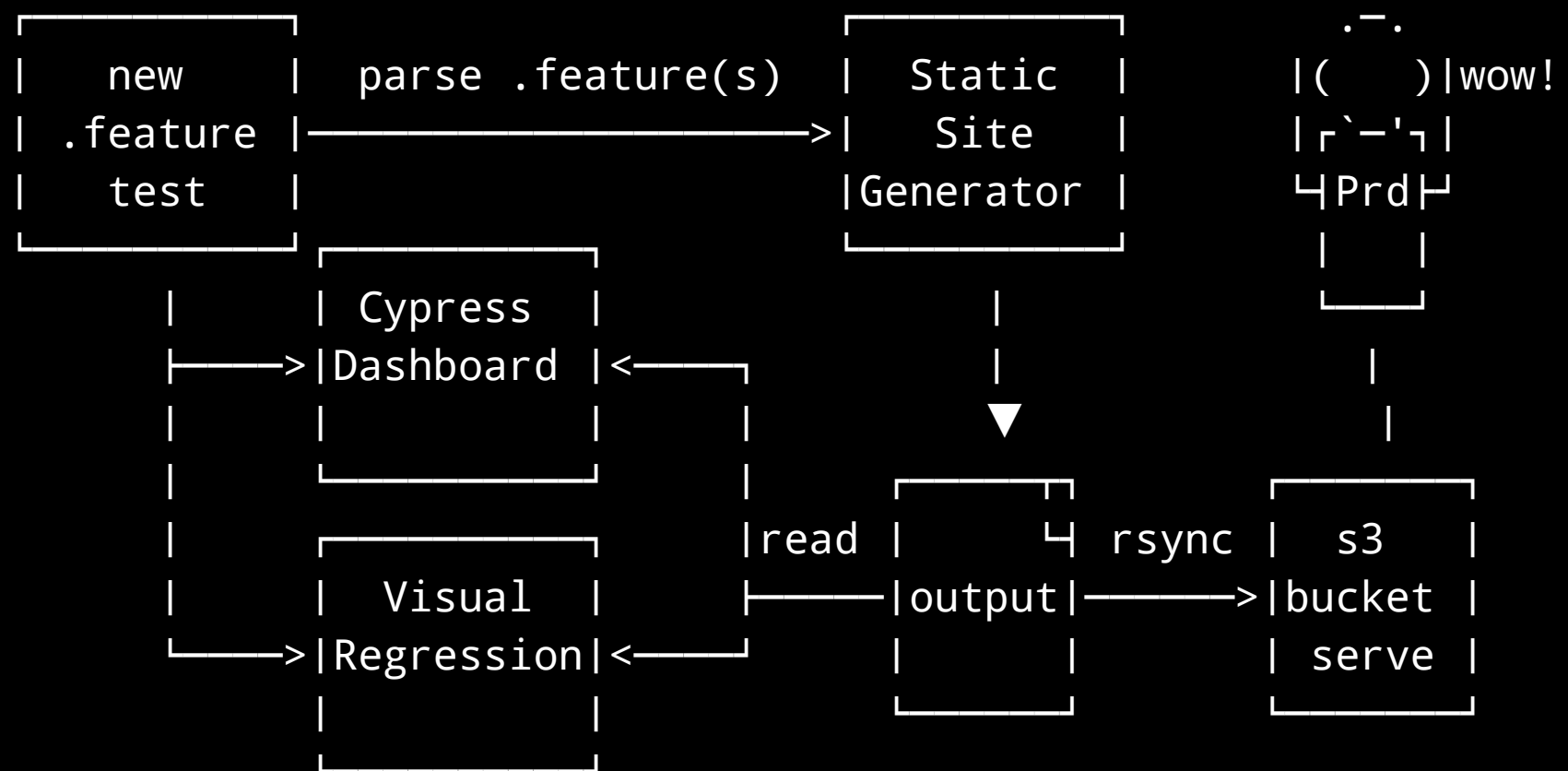
# CONS

▸ Abstracting tests from code

▸ Lack of IDE tooling

▸ Lots of tests make for slow builds

▸ BDD Is hard

# PROS

▶ Product owners write the tests and see the whole pipeline

▶ QA moves to the front of the pipeline

▶ Devs have less tests to write

▶ Less risk with deployments

# LIVE TECH DEMO
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# THANKS

## GITHUB.COM/CSI-LK/CYPRESS-GWT-EXAMPLE

❤️ CALLUM SILCOCK