

ACCEPTANCE CRITERIA

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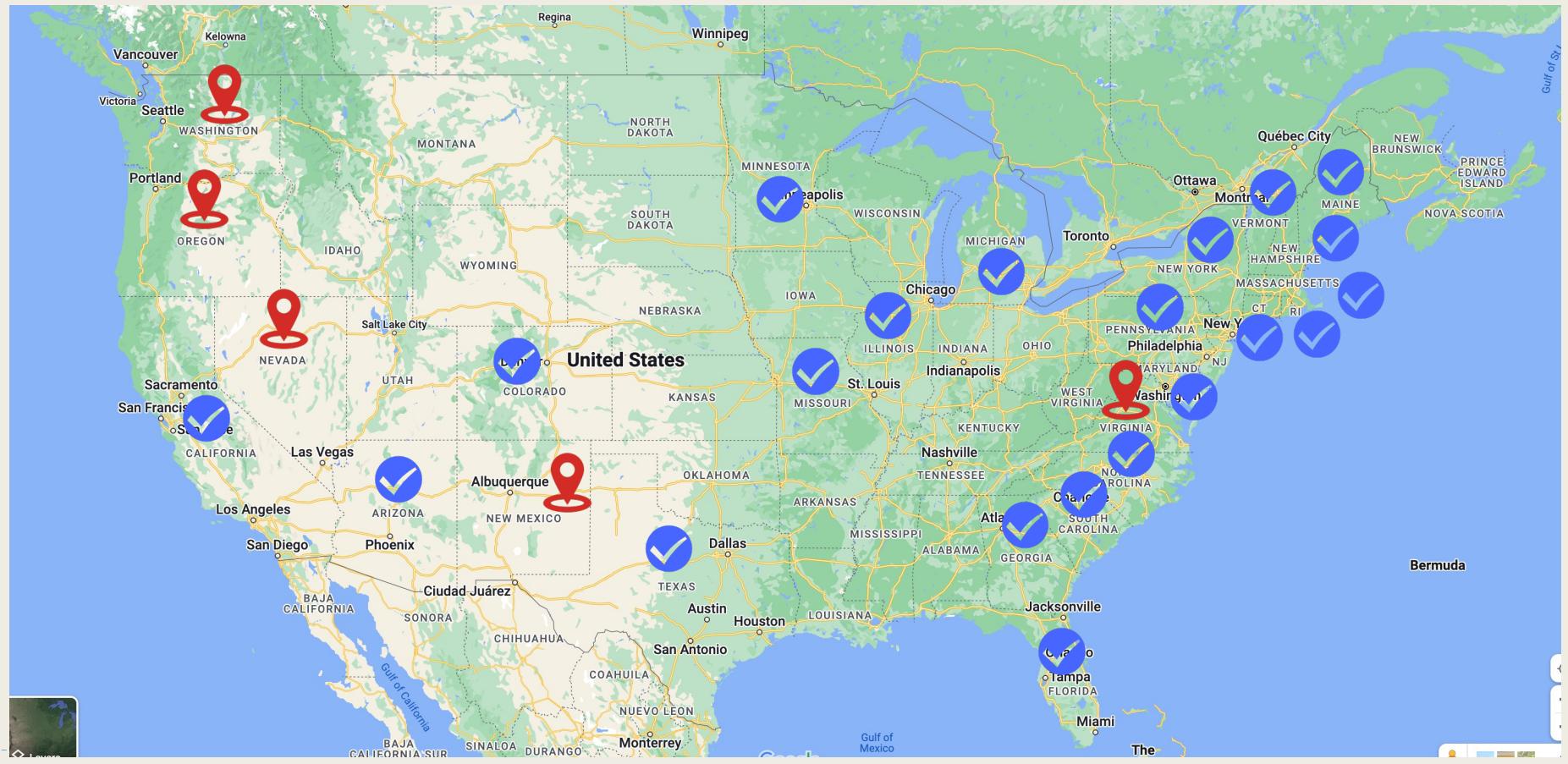


Let's Start with a Story

- At a bank in the US, there's a department who provide M&A services
- Hundreds of deals every month
- The bank currently offers M&A services for companies in about two dozen US States
- They want to expand to a few more US States



Let's Start with a Story

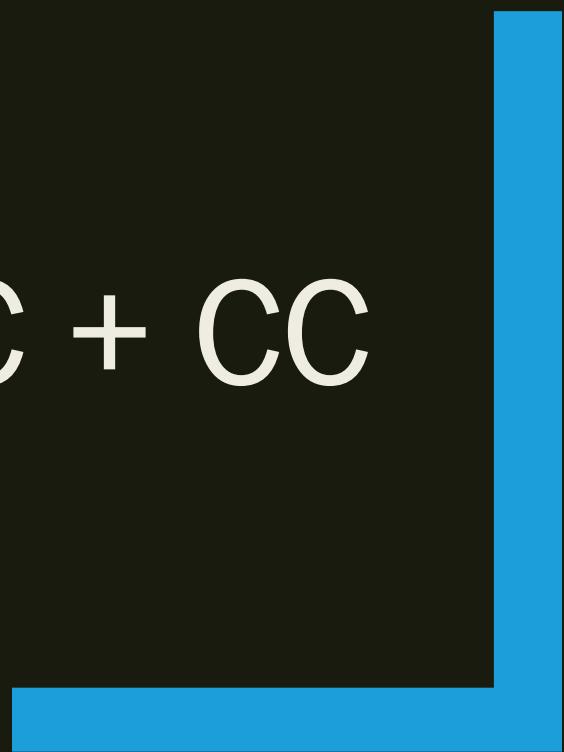


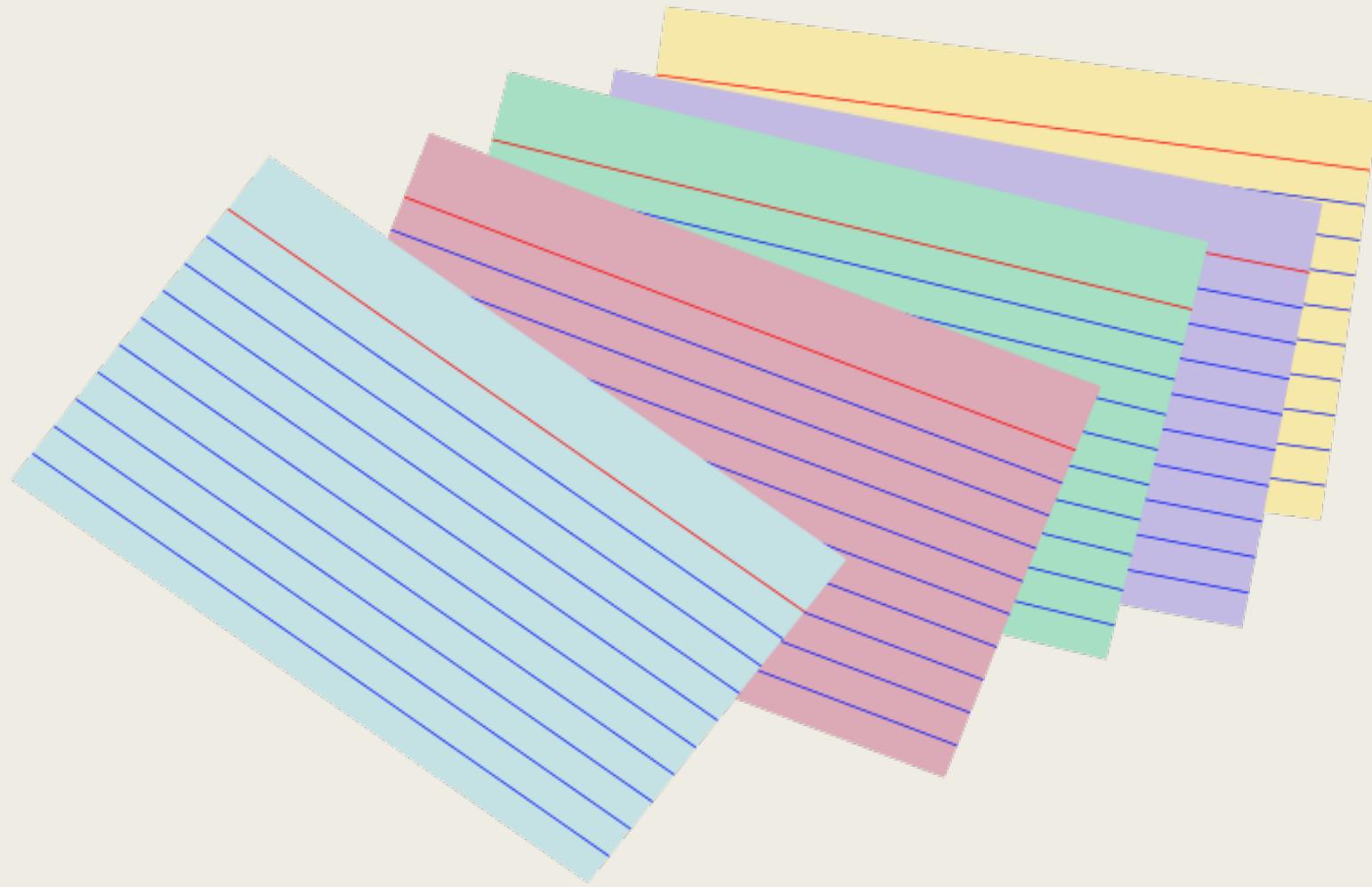
Let's Start with a Story

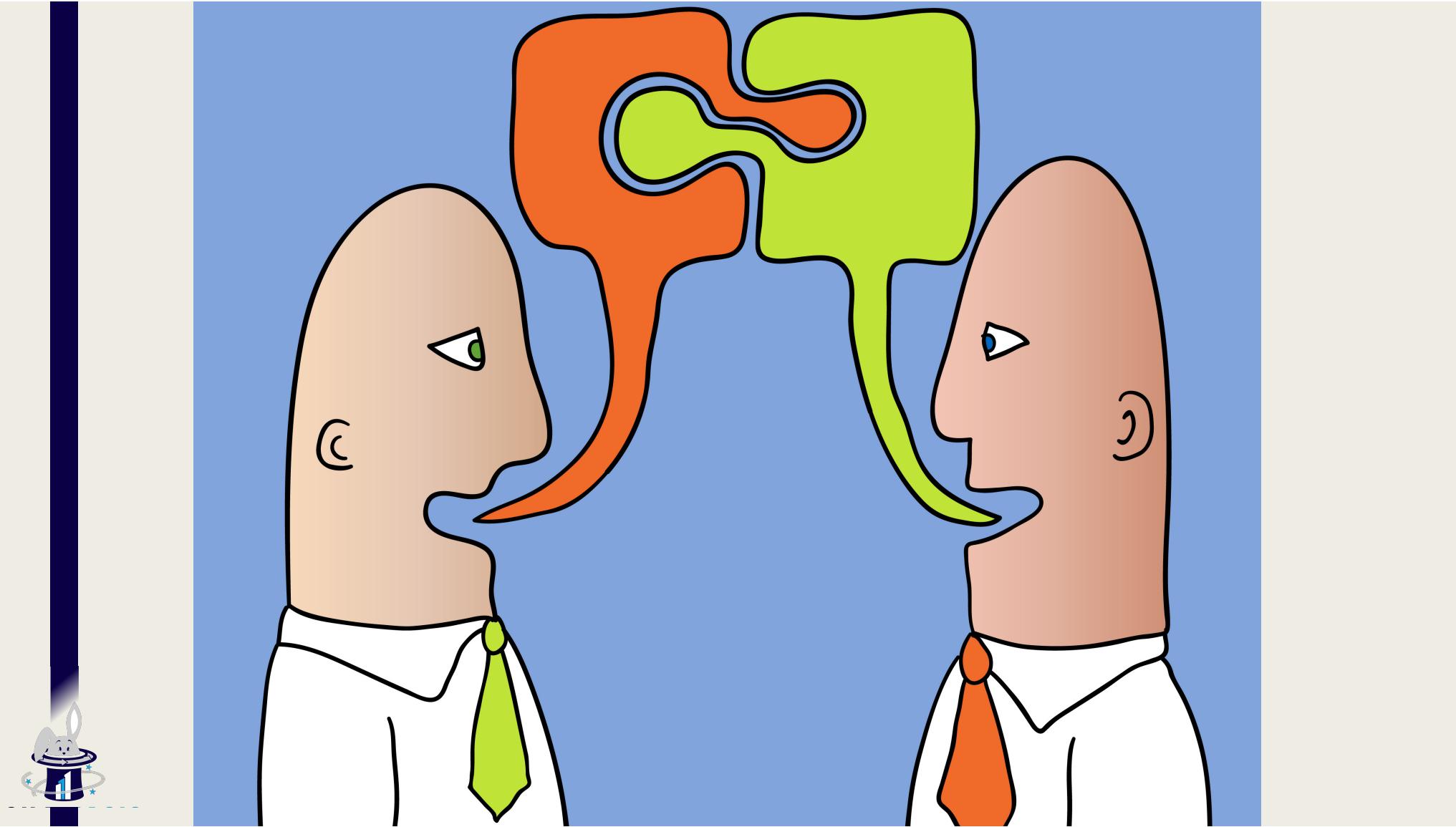
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- Depending on the number of parties involved, other legal documentation may need to be created



CCC + CC







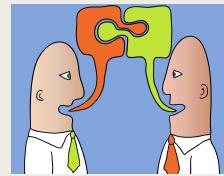








Card



Conversation



Confirmation



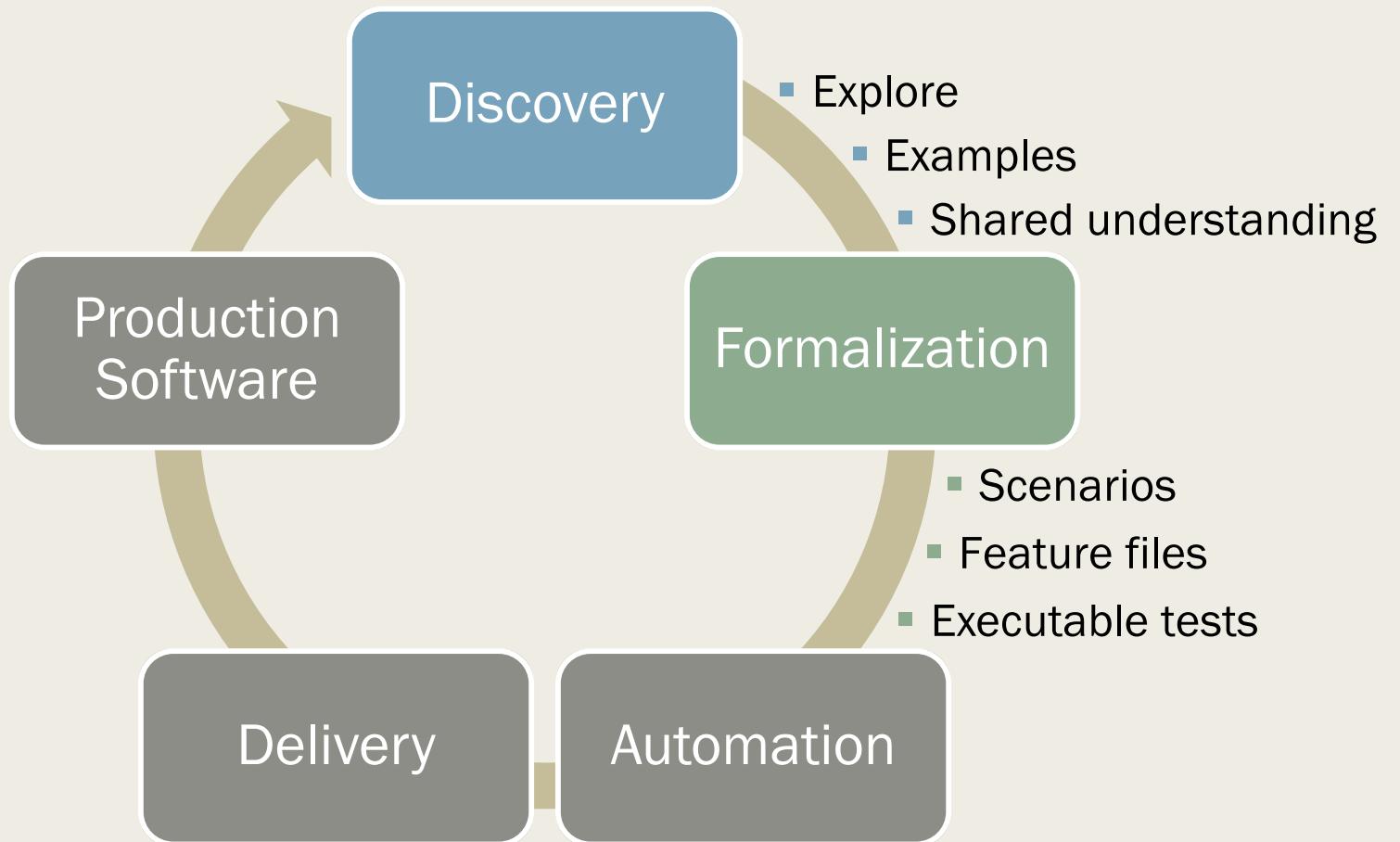
Construction



Consequences



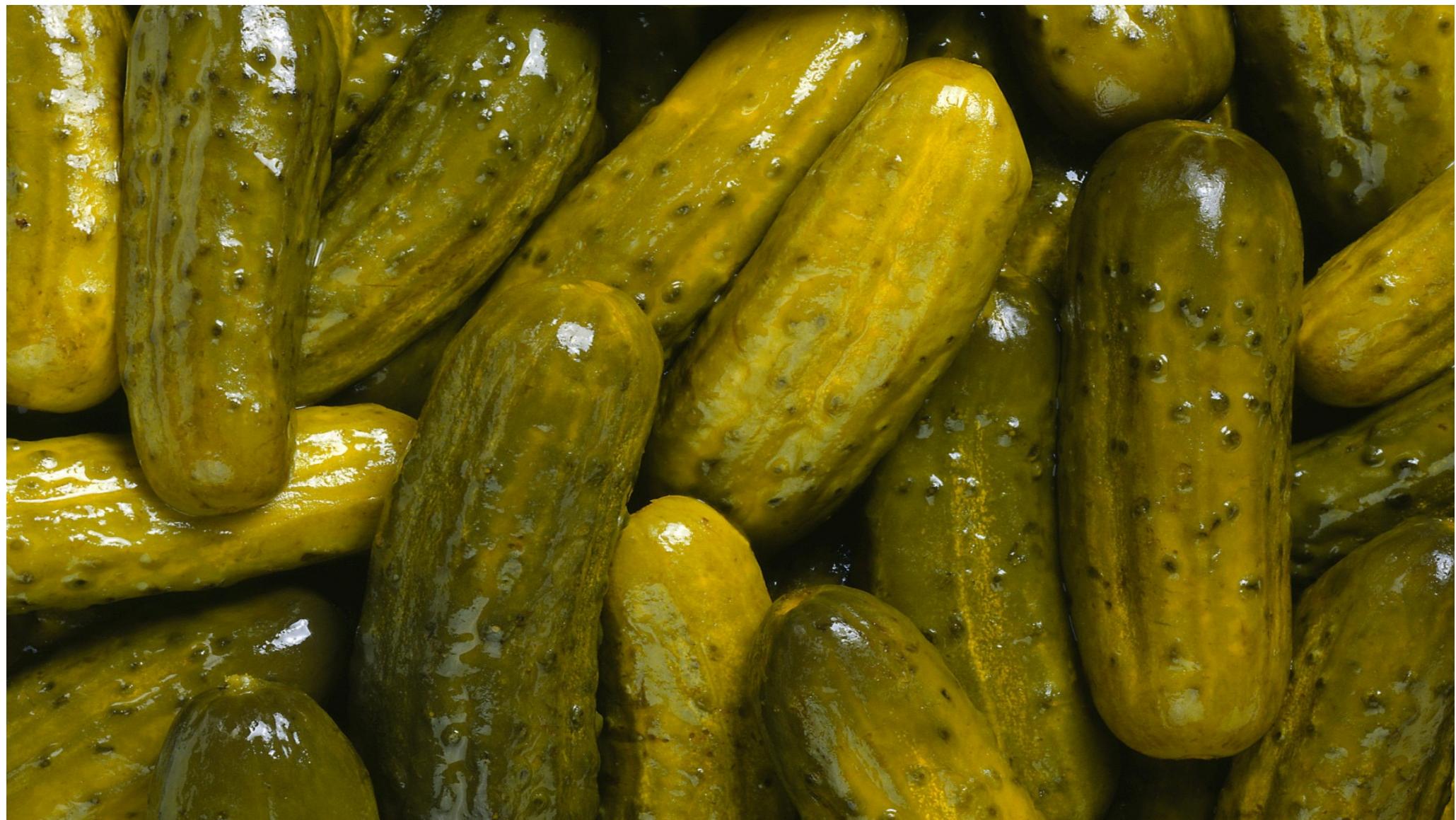
Acceptance Criteria



Acceptance Criteria

- Discover Conditions of Satisfaction, in Broad Terms
 - Agree on what needs to be done
 - Passwords should not be easy to crack
- Align on What is Meant
 - Product Manager, Product Owner, Business Analysts, Developers, Testers, Subject Matter Experts, Business Stakeholders...
 - Align on what we mean by “not easy to crack”
 - Must be at least 8 characters and no more than 12
- Formalization using Actual Scenarios or Data
 - Product Manager, Product Owner, Business Analysts, Developers, Testers, Subject Matter Experts, Business Stakeholders...
 - “ajx972dab” is a valid password “ajx972d” isn’t
 - What about “12345678”? Or “11111111”?
- Formalize executable examples & make it repeatable
 - How can we make sure we write just enough code to make it work?
 - When should we stop coding?
 - Given the “unregistered user” has navigated to the “register” page,
And has entered “newuser” in the “Username” field,
And has entered “ajx972dab” in the “Confirm Password” field,
When they submit the form,
Then the copy “Thank you for Registering” appears on page.





Gherkin

- Scenario
- Given
- When
- Then
- And



Gherkin

- Scenario
 - *Describes the functionality or feature being tested*
- Given
 - *Sets the pre-existing conditions which will not be tested*
- When
 - *The action the user performs*
- Then
 - *The expected outcome*
- And
 - *Extends a Given or a Then
(and technically possibly, but
I'd not recommended, a When)*



Scenario: Login to my account

Given I have entered valid credentials on the login page,
When I click the submit button,
Then I am presented with my account details on the home page.



Scenario: Login to my account

Given I have entered valid credentials on the login page,
And my account is not restricted,
When I click the submit button,
Then I am presented with my account details on the home page.



Scenario: Login to my account

Given I have entered valid credentials on the login page,
And my account is not restricted,
When submit my credentials,
Then I am presented with my account details on the home
page.



Scenario: Login to my account

Given I have entered “activeUser” in the username field on the login page,

And I have entered “password” in the password field on the login page,

And my account is not restricted,

When submit my credentials,

Then I am presented with my name, account number, current balance, and available balance on the home page.



Scenario: Prevent unauthorized access

Given I have entered invalid credentials on the login page,

When I click the submit button,

Then I am presented with an applicable error message.



Scenario: Prevent unauthorized access

Given I am viewing the Login Page,

And I have entered “activeUser” in the username field,

And I have entered “wrongPassword” in the password field,

When submit my credentials,

Then I am presented with an applicable error message.



Scenario: Prevent unauthorized access

Given I am viewing the Login Page,

And I have entered “activeUser” in the username field,

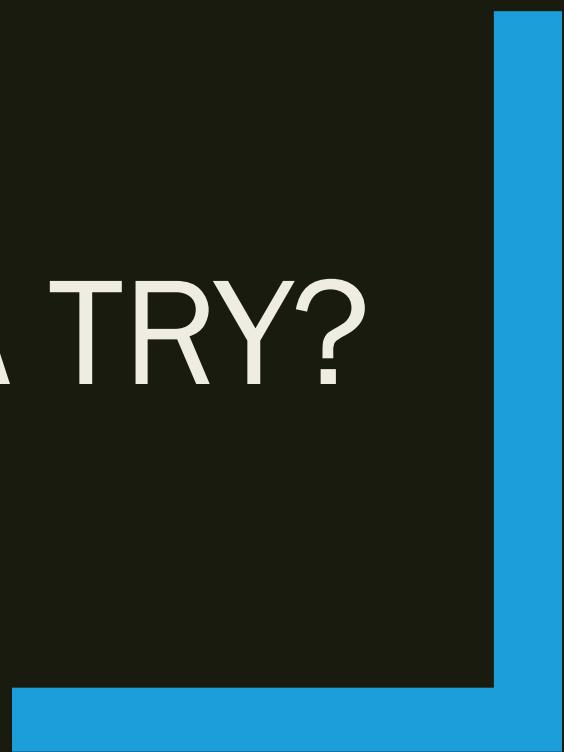
And I have entered “wrongPassword” in the password field,

When submit my credentials,

Then I am presented with [an applicable error message](#).



WANNA TRY?



Gherkin

```
$ cucumber -s
```

```
Feature: Google Homepage Search
```

```
Scenario: User can search with “Google Search”
```

```
Given I’m on the homepage
```

```
And I have typed “random page” into the search field
```

```
When I click the Google Search button
```

```
Then I go to the random page search results
```

```
Scenario: User can search with “I’m Feeling Lucky”
```

```
Given I’m on the homepage
```

```
And I have typed “random page” into the search field
```

```
When I click the I’m Feeling Lucky button
```

```
Then I go to a random page
```

```
Scenario: User can see the Terms and Conditions
```

```
...
```

```
15 scenarios (15 passed)
```

```
87 Steps (87 passed)
```

```
0m3.141s
```



Scenario: Eating pickles

Given there are 12 pickles on my plate,
When I eat 4 pickles,
Then there are 8 pickles left on my plate.



Scenario: Eating pickles

Given there are <start> pickles on my plate,

When I eat <eat> pickles,

Then there are <left> pickles left on my plate.

start | eat | left

- | | | | | | |
|--------------------------------------|----|--|----|--|----|
| ✗ | 12 | | 3 | | 8 |
| ✓ | 20 | | 5 | | 15 |
| ✓ | 2 | | 3 | | -1 |
| ✓ | 2 | | -4 | | 6 |



Scenario Outline

- Background:
 - *Given there is a plate,*
 - *And the plate has one or more pickles on it,*
 - *And the plate belongs to Suzy,*
- Scenario: Suzy eats pickles
 - *When Suzy picks up a pickle,*
 - *Then she has a pickle in her hand,*
 - *And there is one less pickle on the plate*
- Scenario: Steve eats pickles
 - *When Steve picks up a pickle,*
 - *Then he is presented with an error that these are not his pickles,*
 - *And all the pickles remain on the plate*



Gherkin

- Gherkin
 - *In order to allow Gherkin to be written in a number of languages, the keywords have been translated into multiple languages. To improve readability and flow, some languages may have more than one translation for any given keyword.*
- The language you choose for Gherkin should be the same language your users and domain experts use when they talk about the domain. Translating between languages should be avoided.
- English:
 - *given*
- French:
 - *Soit; Sachant que; Sachant qu'; Sachant; Etant donné que; Etant donné qu'; Etant donné; Etant donnée; Etant donnés; Etant données; Étant donné que; Étant donné qu'; Étant donné; Étant donnée; Étant donnés; Étant données*



Acceptance Criteria



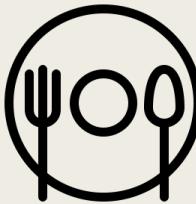
Cooked to an internal temperature of 130° F

Cooked to an internal temperature of 165° F

Cooked to an internal temperature of 145° F



Definition of Done



On a plate



With a baked potato



And a decorative garnish

Think of these like the AC that apply to all (or most) of the work your team does

Some common things that might be in a Definition of Done...

- Verify that the time is presented in the user's local time zone
- Verify that the time is stored in UTC in the DB
- Verify that the page loads in the users preferred language
- Pages loads on Chrome, Safari 15, Firefox, and Mobile Safari
- Code has been reviewed by more than one team member
- Code has been promoted to Test
- Page loads in under 300ms
- All pages meet WCAG 2.1, level AA
- Etc...



About a DoD...

- It's created by the team
- It's not a static document
 - *It evolves over time*
 - *Not everything goes on it right now*
 - *Things will get added & things will get removed*



How This Might Help

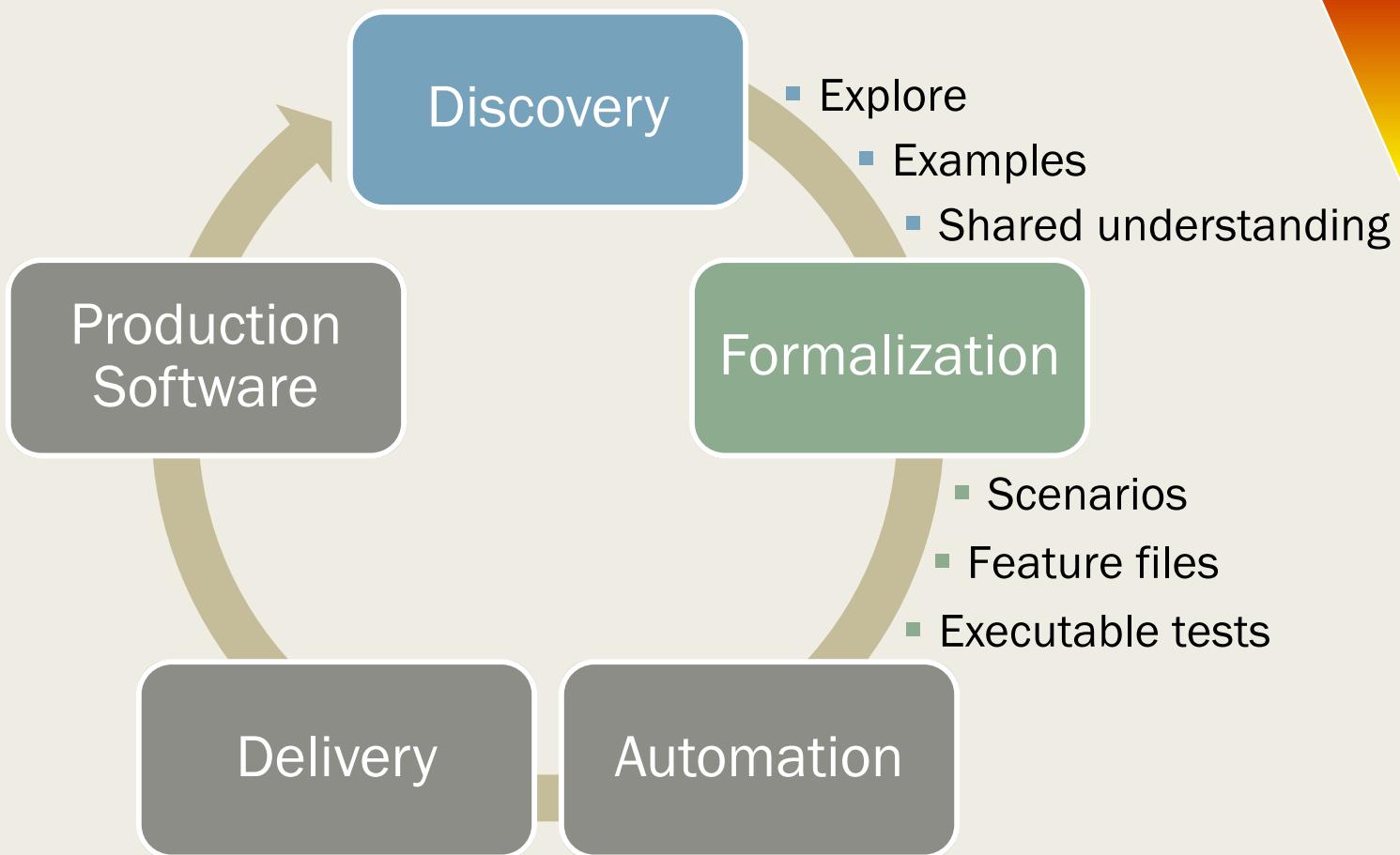
- Gherkin is, yes, one way to build up an automated test suite
- You have living documentation right in your code, that matches what the code does (if your code starts doing something different, your tests will break)
 - *It doesn't get out of date the same way a typical Business Requirements Document (BRD) or Software Design Document (SDD) so often does*
- When you refactor your code...
 - *Let's make sure we mean the same thing by the word 'refactor':*
 - We change our code to improve it in some way, without changing the functionality...

It gives us confidence that we've not broken anything in that process

- But those are (IMHO) bonus ways this might help...



How This Might Help

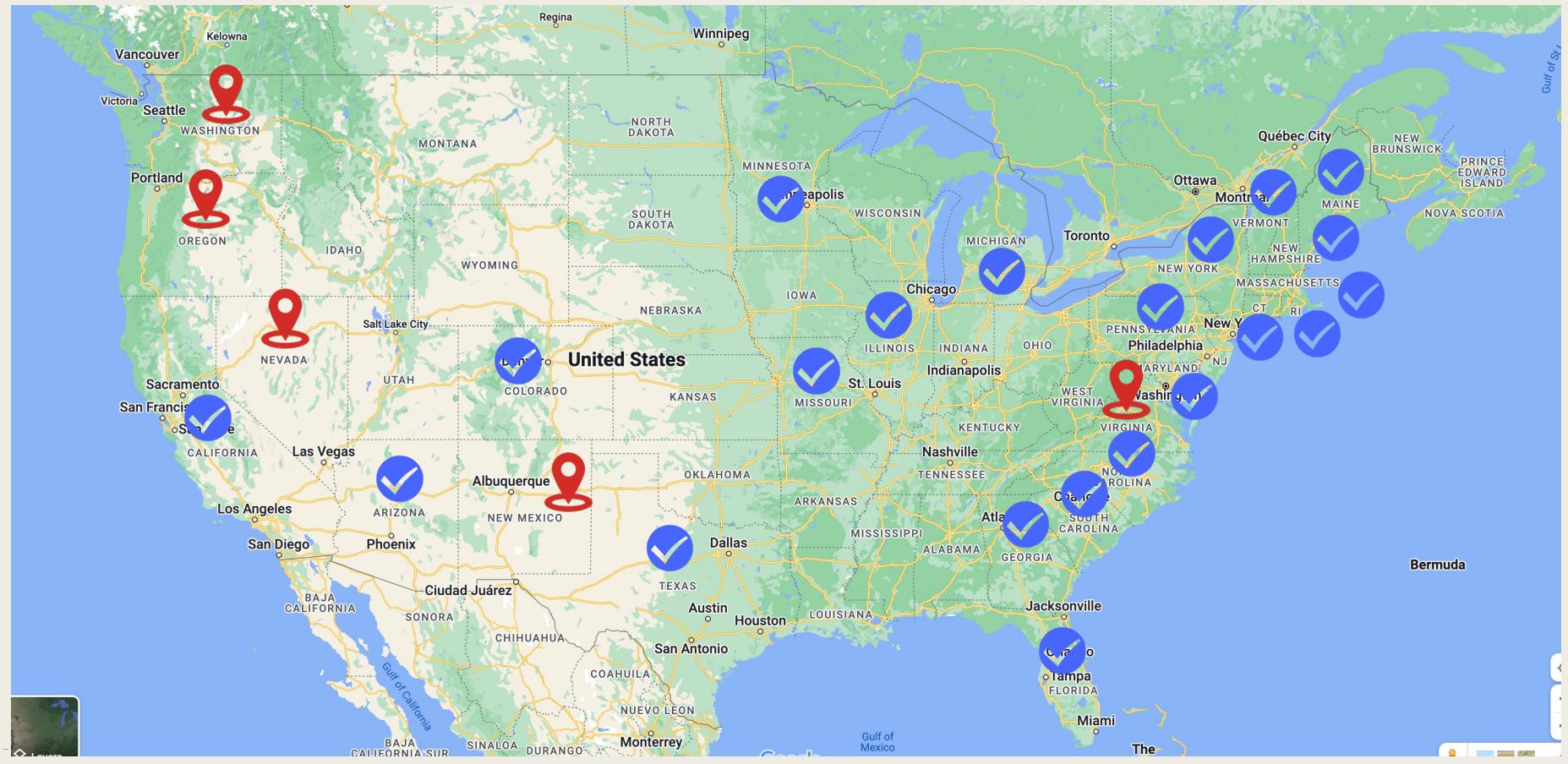


Let's Get Back to my Story...

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Let's Get Back to my Story...



Let's Get Back to my Story...

- I started to ask things...
 - *What if the purchasing company is in Washington, but the company being acquired is in New York?*
 - *What if the company has offices or places of business in multiple states?*
 - *What if the company has international shareholders?*
 - *What if the company communicates to shareholders in both English & Spanish?*
- Experts on the team told me things like...
 - *There's nothing special about that combination, so the system will just work*
 - *That situation can't happen...*
 - *I would expect the standard documents to be generated...*
- By writing out the expected outcomes of various combinations, in what many might consider being a verbose way, I was able to identify 11 scenarios that the experts on the team (including the lawyers on the team) hadn't considered, and couldn't tell me what outcome was expected (which forms & documents would need to be prepared, what the required notice period would have to be, what language communications would be in...)
- The team building the M&A system was able to prevent these issues, which would've caused all sorts of problems...



Acceptance Criteria... And Gherkin



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