Testing and documenting your data doesn't have to suck

Data Council NYC - Nov 2019

great_expectations

SUPERCONDUCTIVE

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@abeGong

About me (Abe)

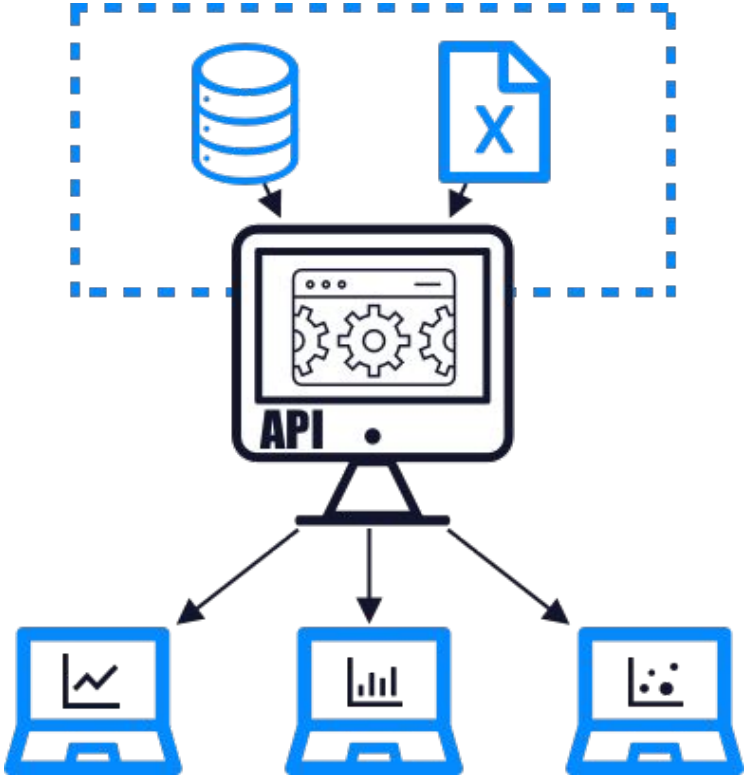
- Data scientist/engineer
- Tech-first and “enterprise”
- Human-scale, ethical data
- First time in NYC as an adult (?!)

Outline

1. A thing we do that is ABSOLUTELY CRAZY
2. How to defeat pipeline debt
3. Volunteers wanted!


a thing we do
that is
ABSOLUTELY CRAZY
THIS IS MADNESS!

a thing we do that is ABSOLUTELY CRAZY



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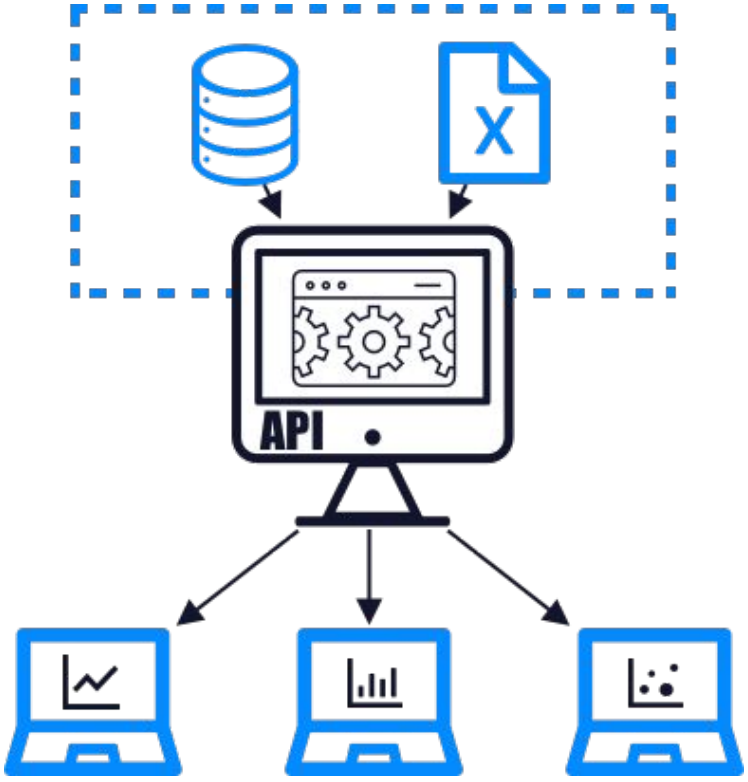

Undocumented

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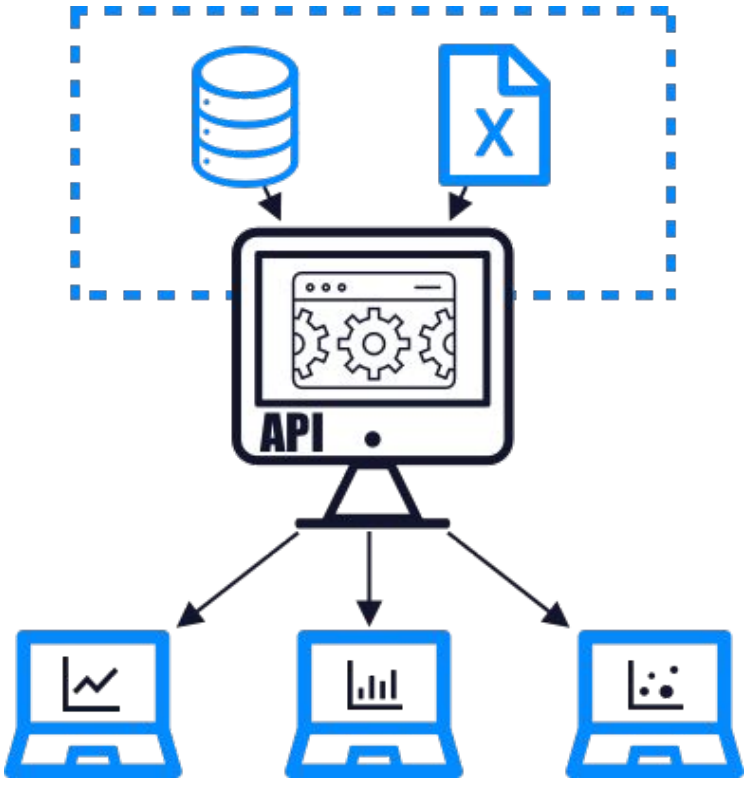

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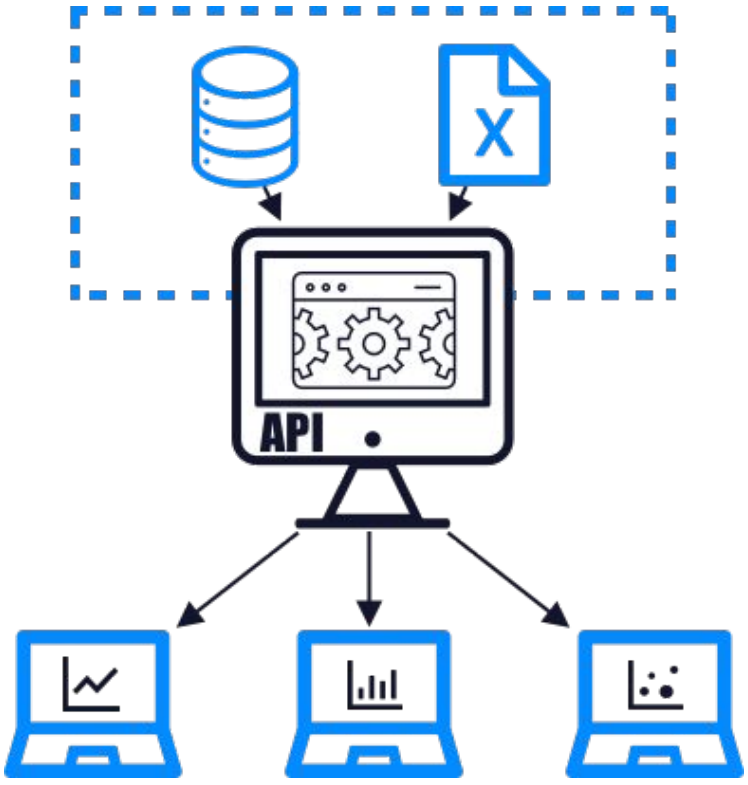

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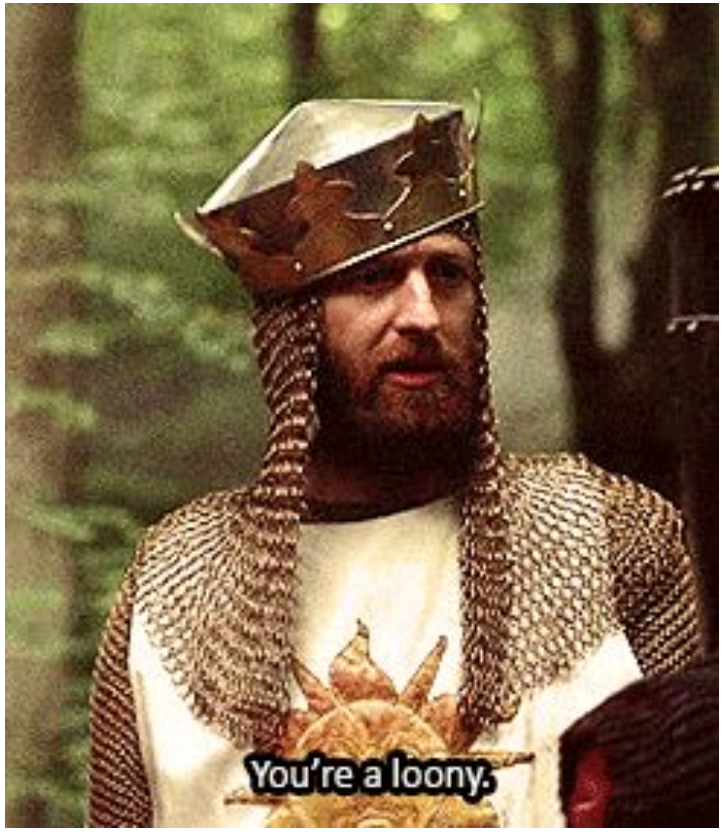

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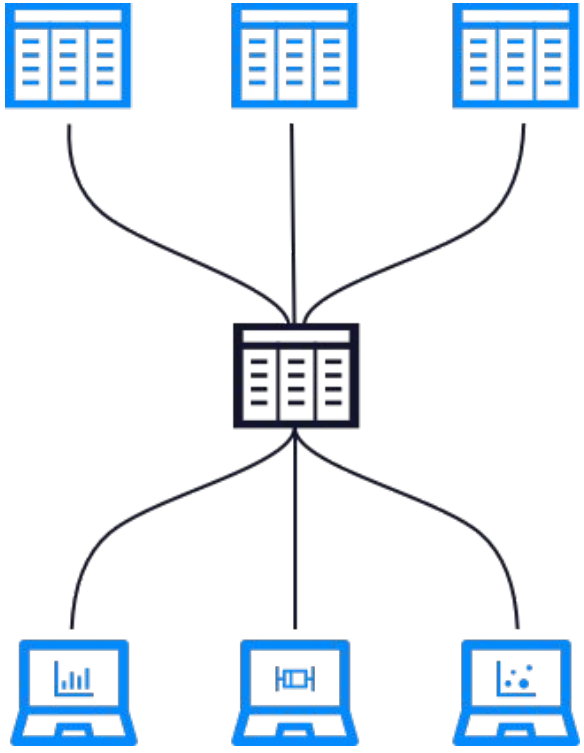

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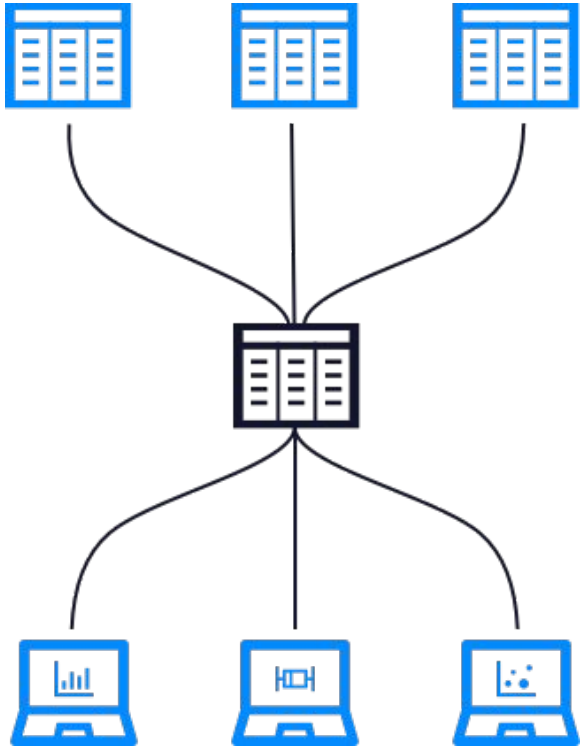

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Trying to maintain a

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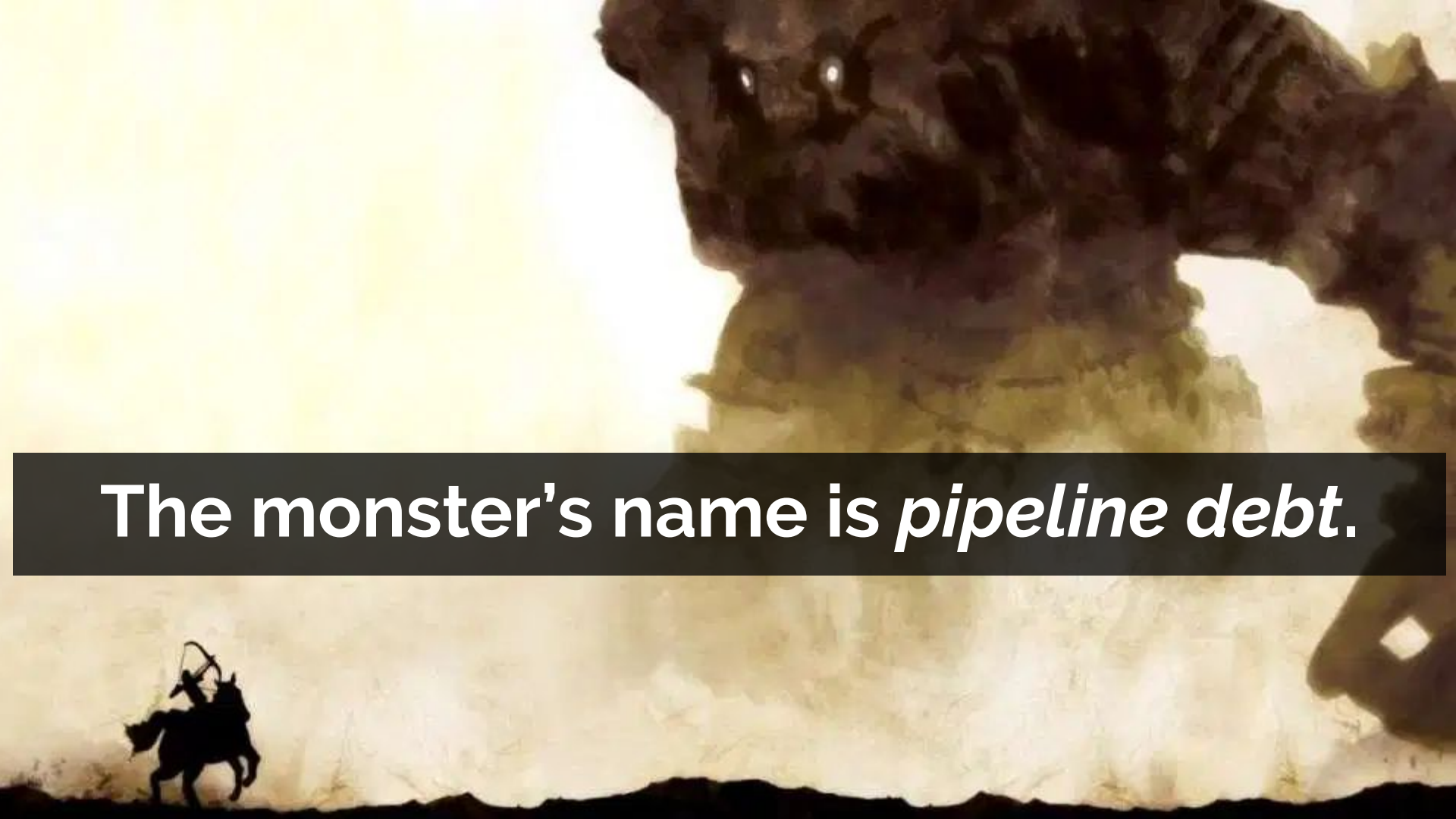
The monster's name is *pipeline debt*.

great_expectations

Always know what to expect from your data

Expectations are assertions about data

great_expectations

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expect_column_to_exist

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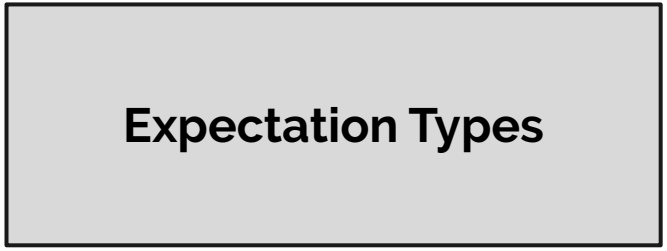


Expectations are assertions about data

Expectation Types

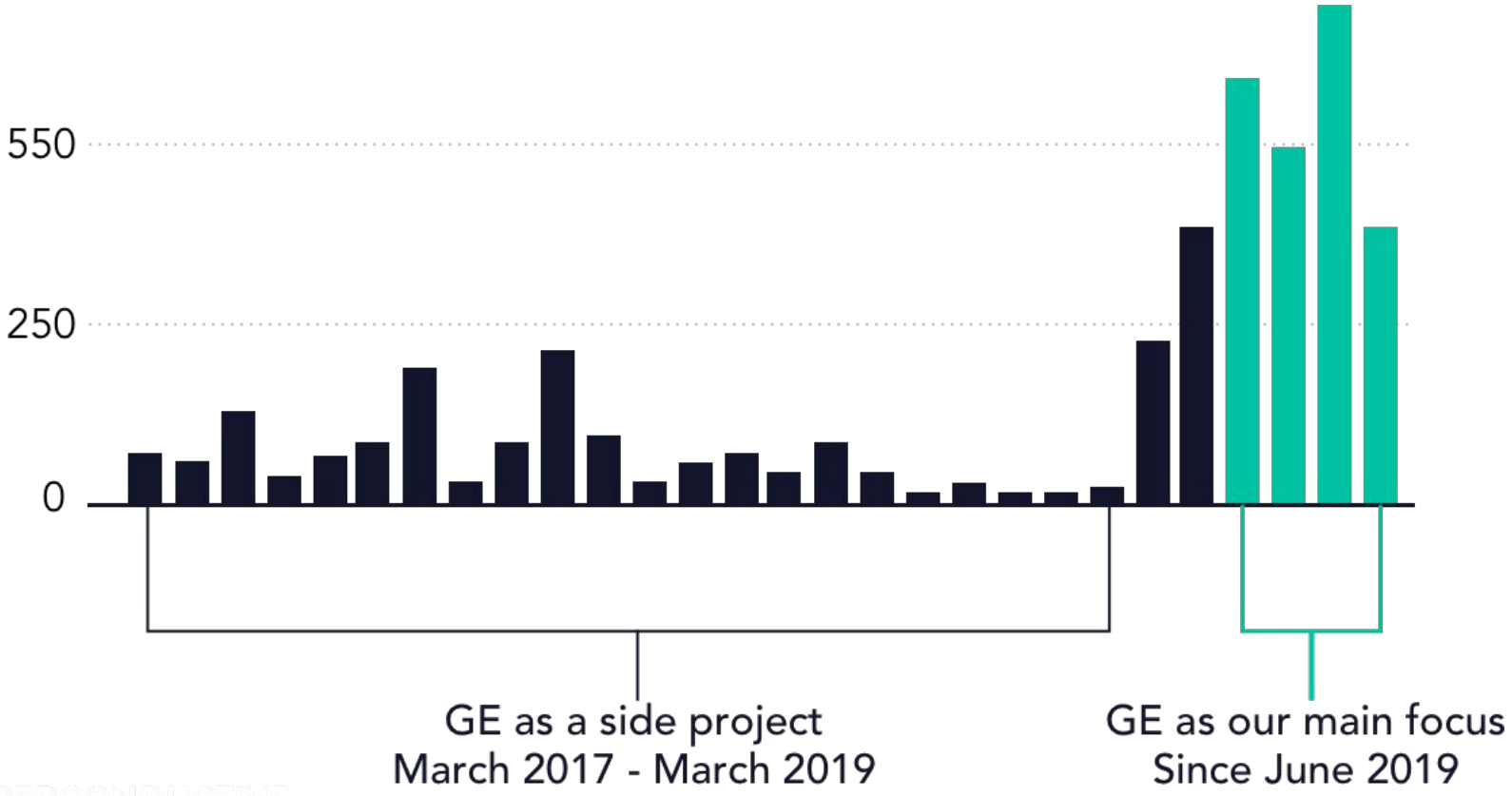
Data Sources

How to draw an owl

1. Draw some circles

2. Draw the rest of the stupid owl

Great Expectations has a bunch of shiny new features



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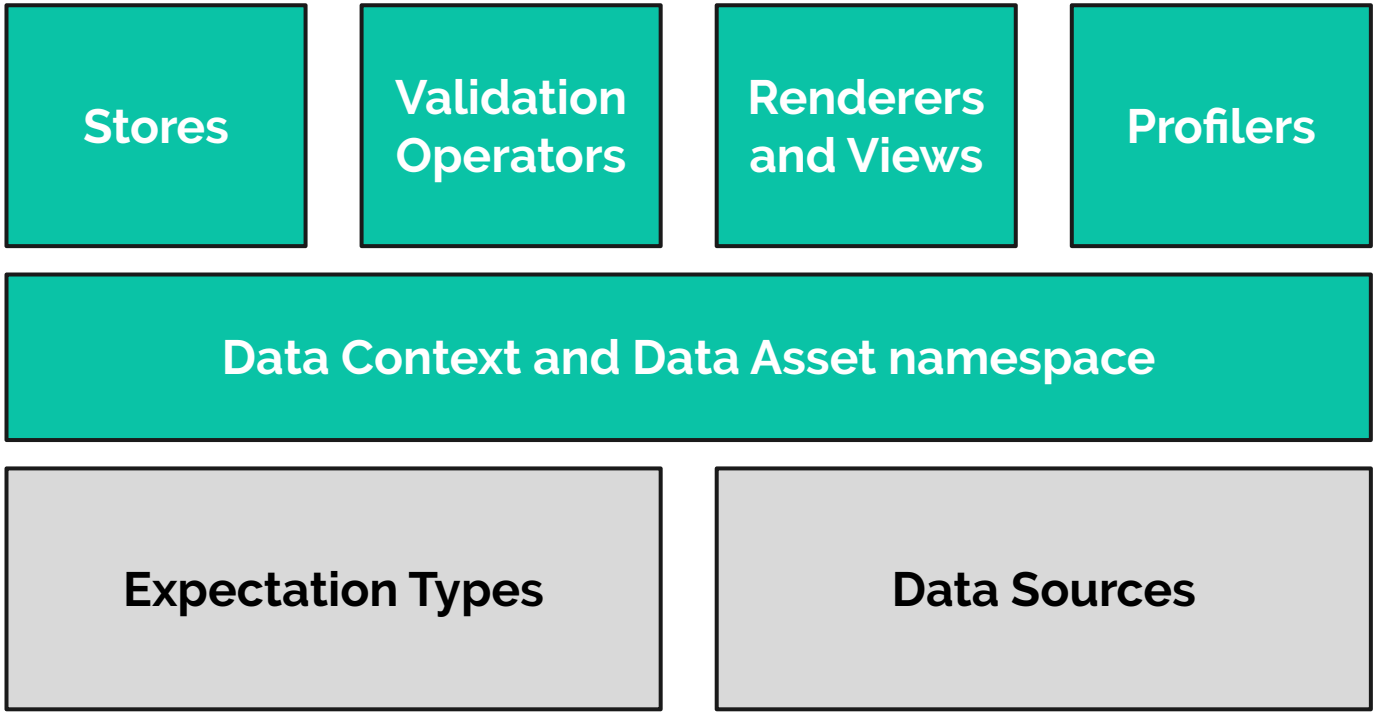

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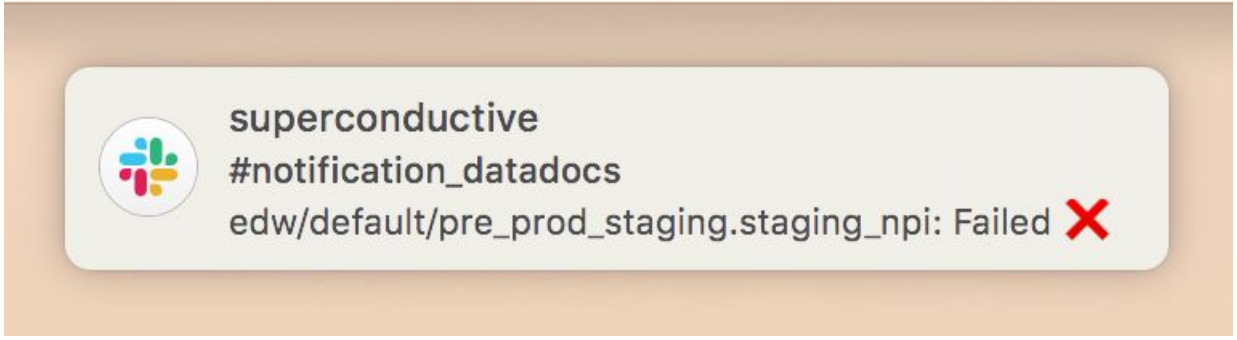
config_variables.yml

```
1  # This config file supports variable substitution which enables: 1) keeping
2  # secrets out of source control & 2) environment-based configuration changes
3  # such as staging vs prod.
4  validation_notification_slack_webhook: https://hooks.slack.com/services/d34db33f/
5
```



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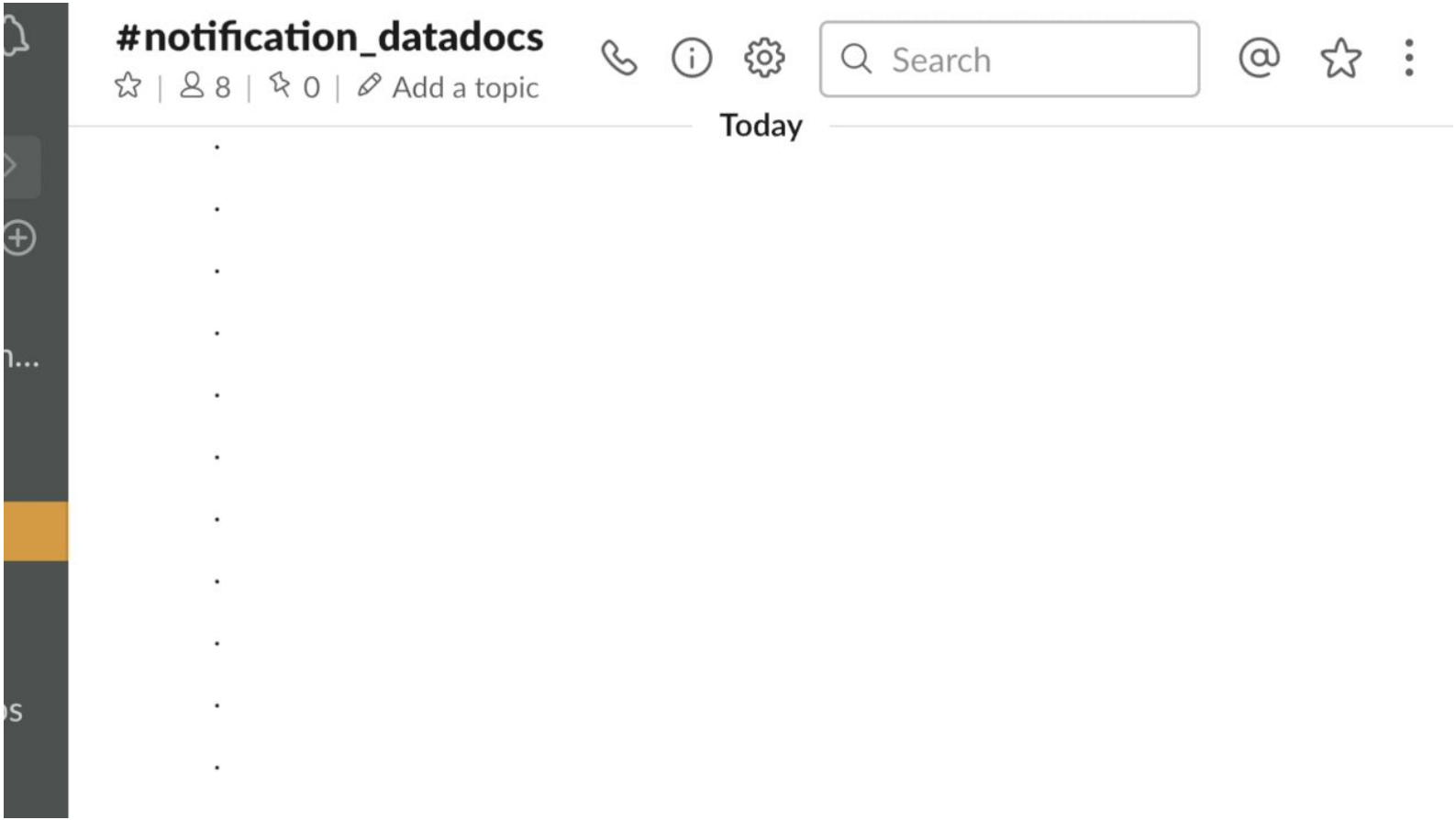

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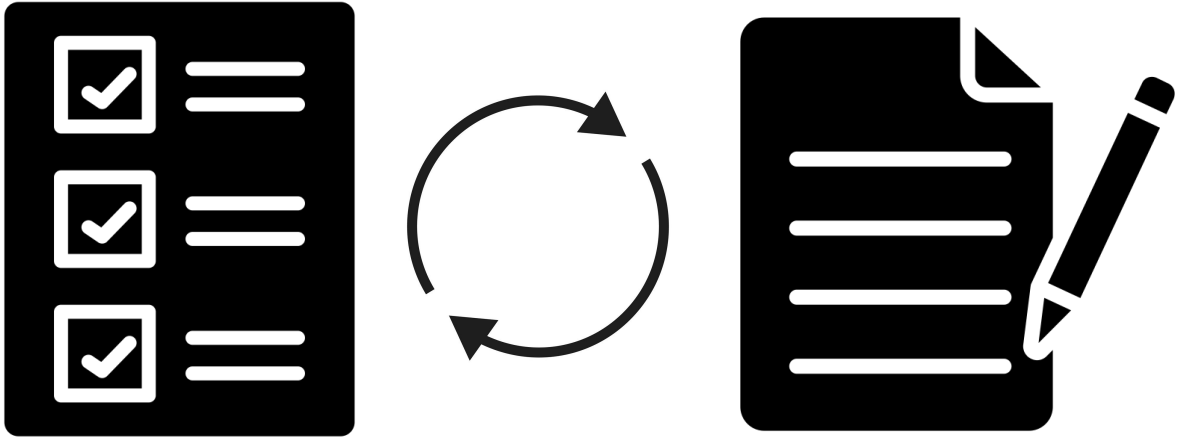
Set up data testing in a day, not a month.

Your docs are your tests,
and your tests are your docs.



Icons created by SBTS from Noun Project

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You probably don't need a data dictionary

ALEX JIA & MICHAEL KAMINSKY · JUN 17, 2019 · 10 MIN READ

While efforts to build a data dictionary are often undertaken out of a zeal for documentation that we would normally applaud, in practice data dictionaries and data catalogs end up being a large maintenance burden for little actual value, and tend to very quickly become out of date.

https://www.locallyoptimistic.com/post/data_dictionaries/

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```
expect_column_values_to_be_between(
    column="room_temp",
    min_value=60,
    max_value=75,
    mostly=.95
)
```


"Values in this column should be between 60 and 75, at least 95% of the time."

"Warning: more than 5% of values fell outside the specified range of 60 to 75."

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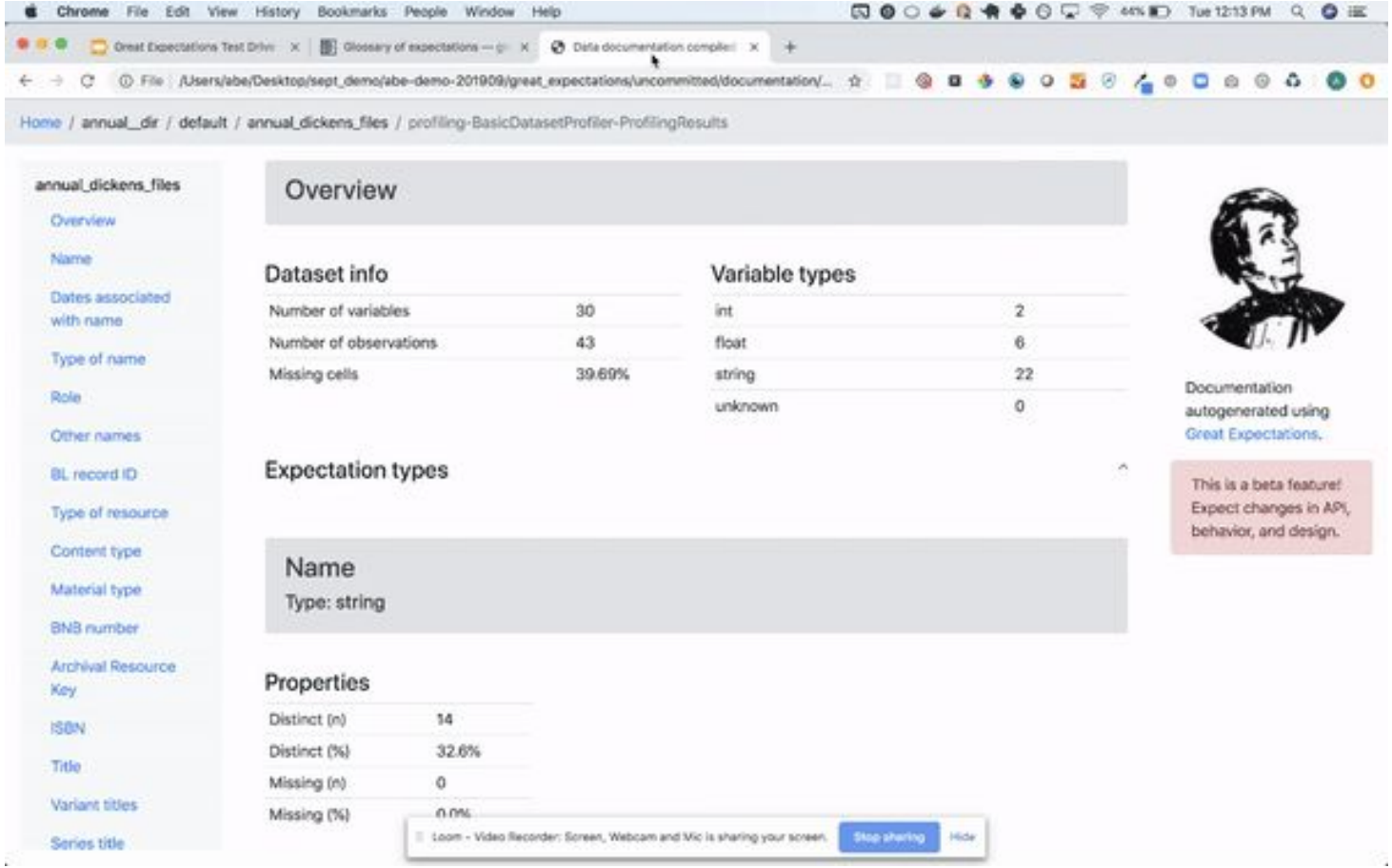

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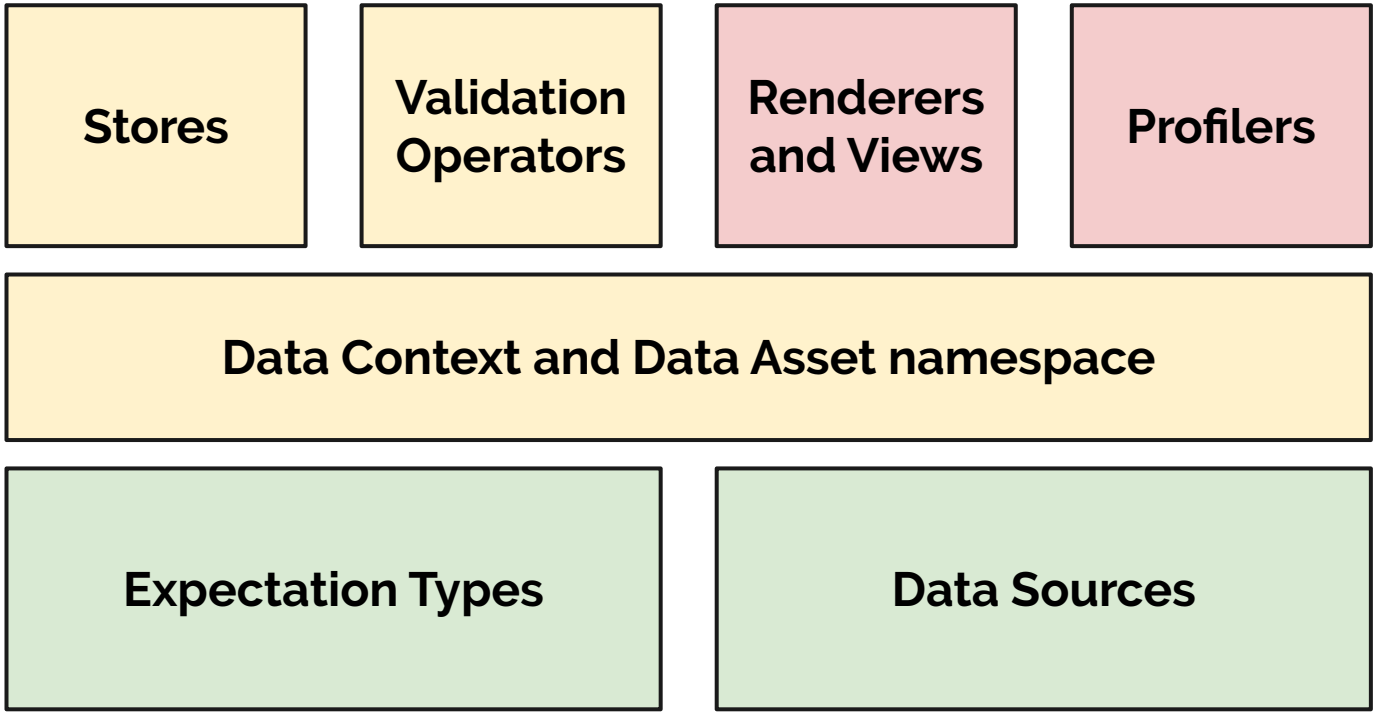

Volunteers wanted!

1. Pick a day
2. Work with us
3. Get set up
4. Improve the project

How to get in touch:

👋

https://greatexpectations.io/slack

Recap

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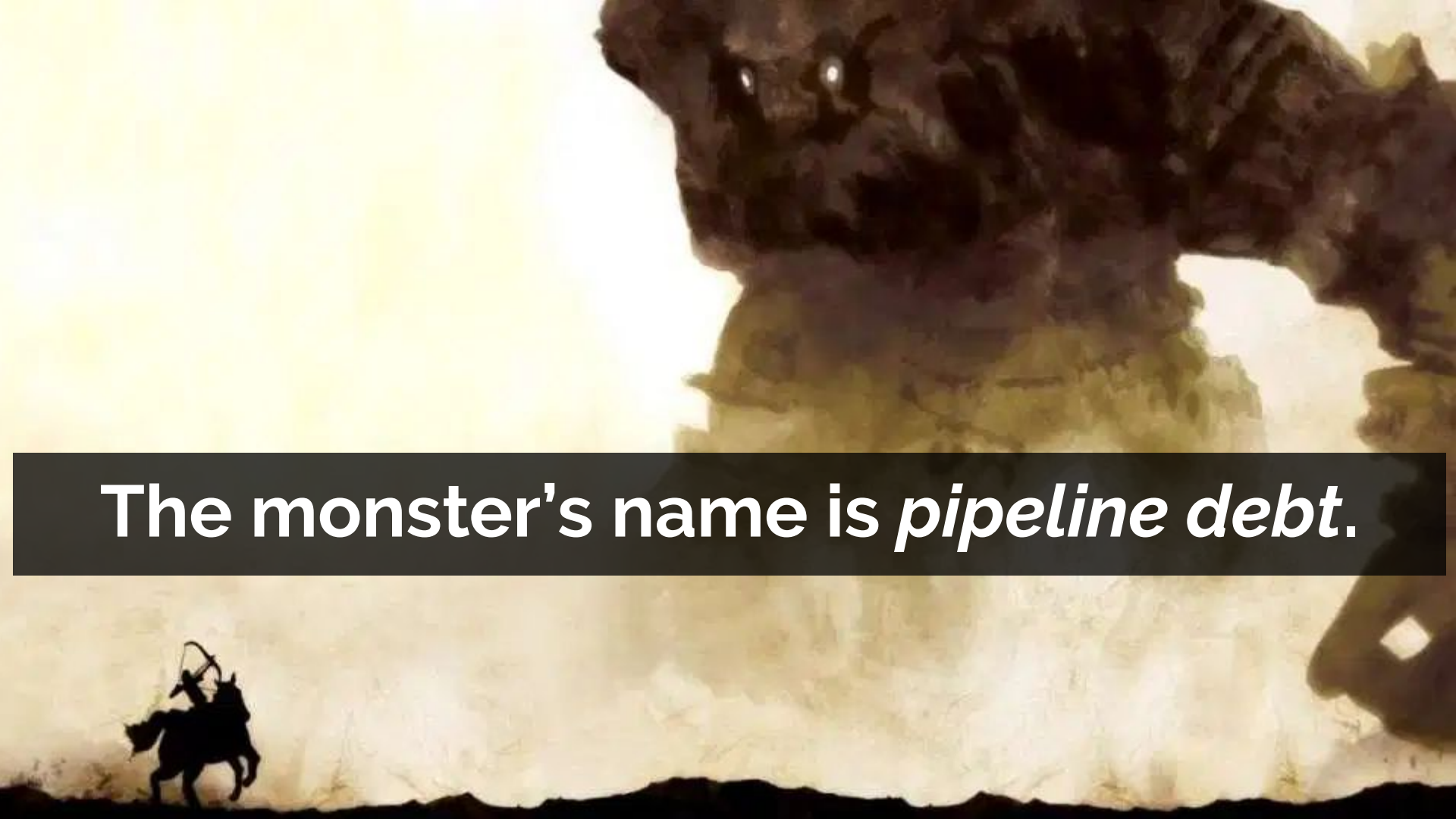
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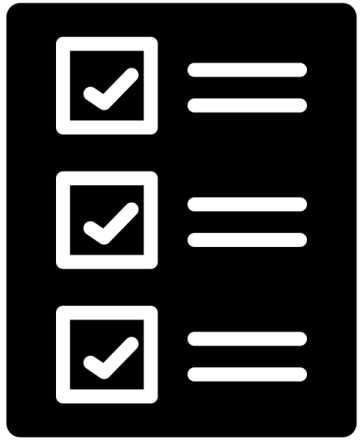

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Thank you, New York!

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