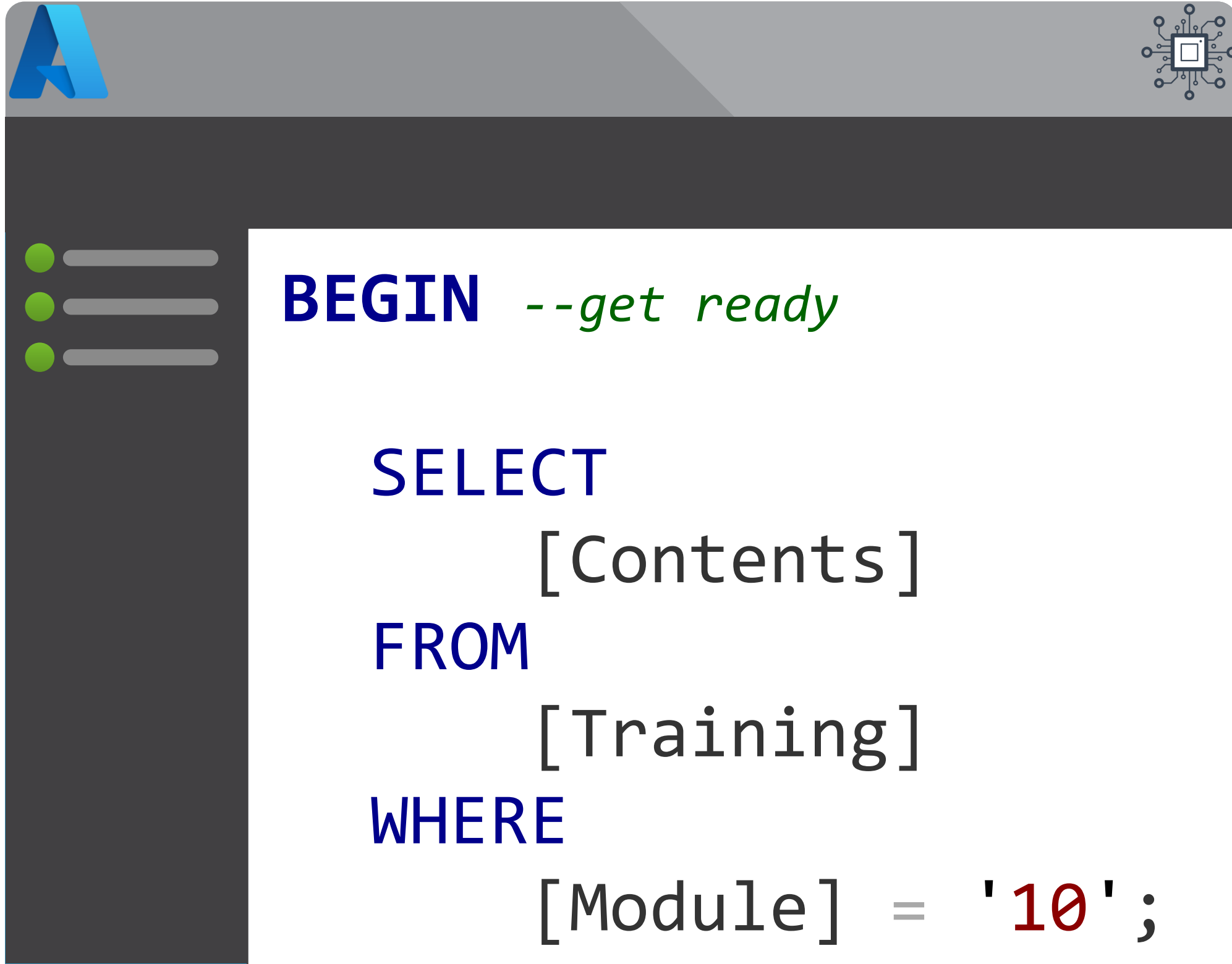


Module 10

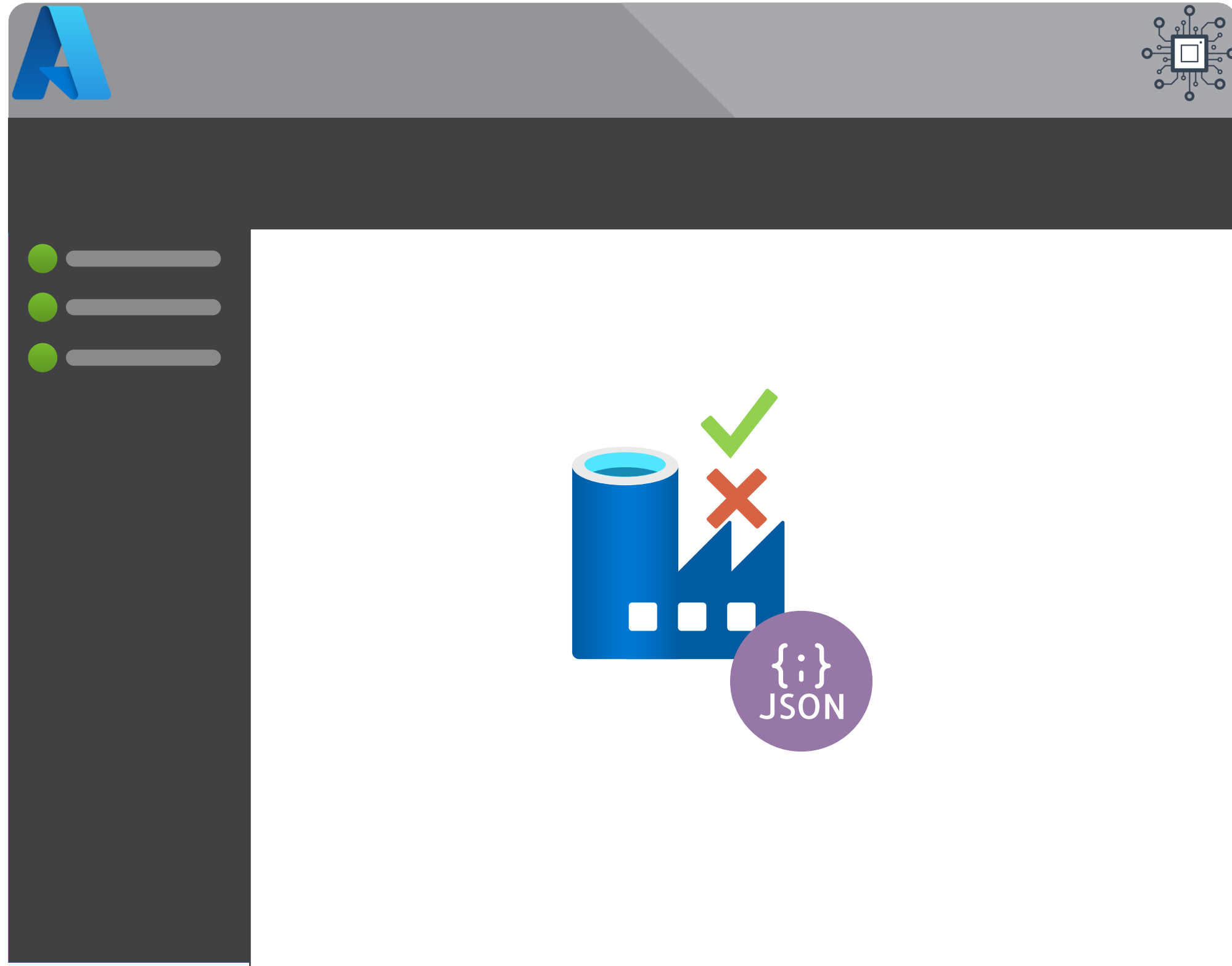
Testing



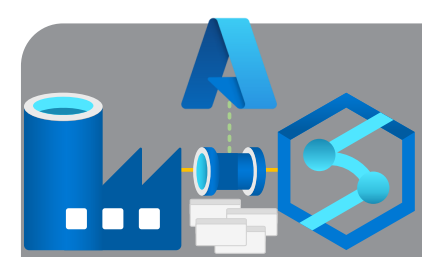
- Development Time Validation
- Test Coverage
- NUnit Tests

Module 10

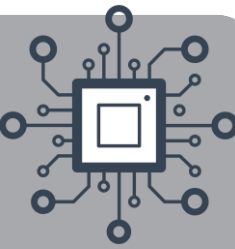
Testing



- Development Time Validation
- Test Coverage
- NUnit Tests



Development Time Validation



Microsoft Azure | Data Factory ▶ TrainingFactoryDev

>> / main branch **✓ Validate all** Save all Publish

Factory Resources ⌵ ⌵⌵

Filter resources by name +

- ▲ Pipeline 15
 - ▲ Demo Pipelines 15
 - 📄 pipeline1
 - ▶ Data Flows 1

Activities ⌵ ⌵⌵

Search activities

- > Move & transform
- > Azure Data Explorer
- > Azure Function

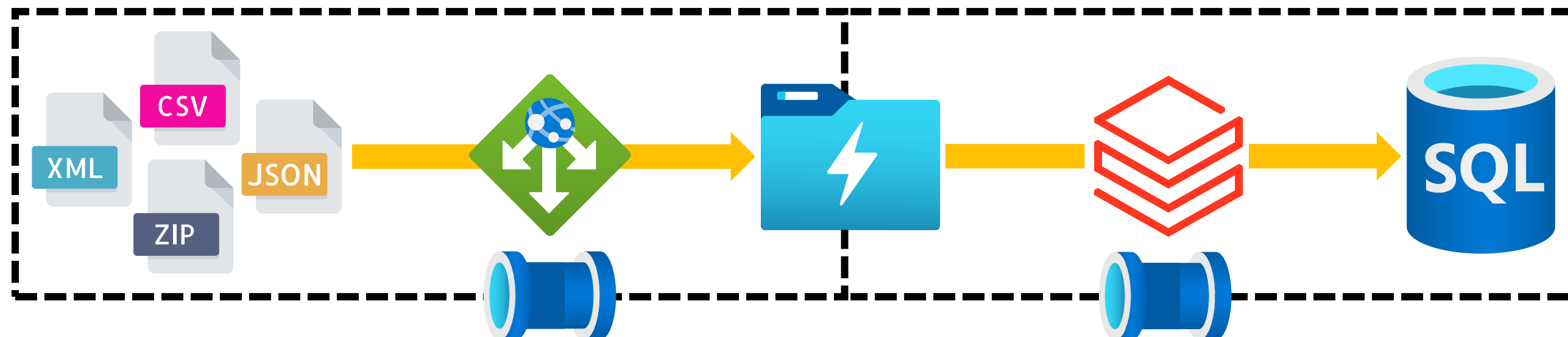
📄 Saved Save as template **✓ Validate** ▶ Debug ⚡ Add trigger



Integration Pipelines Validation



What is Data Factory actually checking for?



1

Linked Services



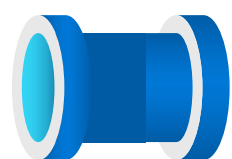
2

Datasets



3

Activities



4

Pipelines



5

Triggers



General¹

Variables¹

User properties

Name *

[Learn more](#)

✖ Activity name is required.

Description

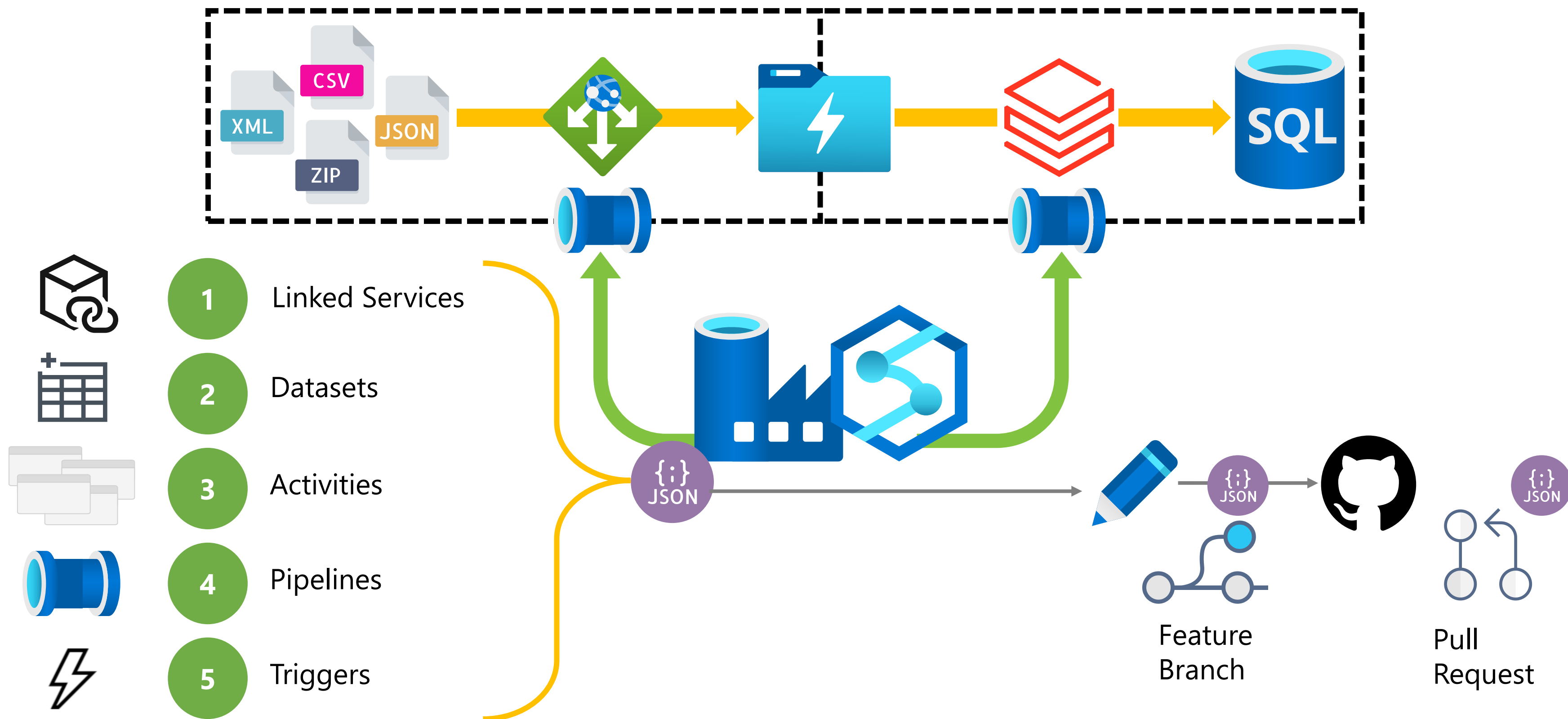
1. Mandatory Values
2. Value Data Types
3. Value Context

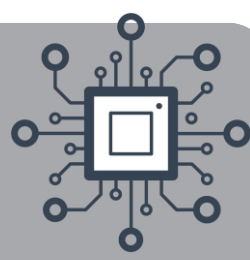


Integration Pipelines Validation



What is Data Factory actually checking for?



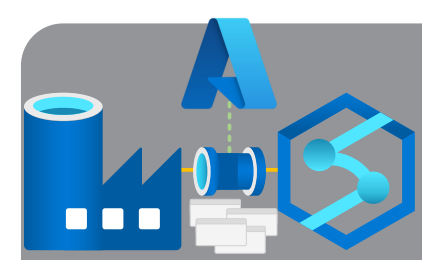


Module 10

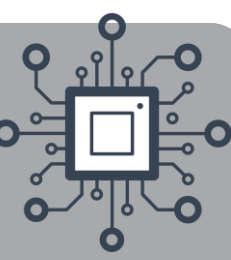
Testing



- Development Time Validation
- Test Coverage
- NUnit Tests



Types of Testing

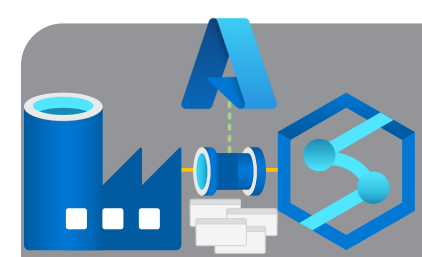


🔊 **Integration Tests** - A test of a pipeline as-is, without eliminating any effects of external dependencies.

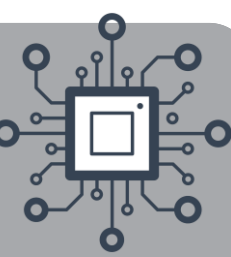
🔊 **Functional Tests** - An isolated test of whether the pipeline is doing things right – is the pipeline producing the desired result?

🔊 **Unit Tests** - An isolated test of whether the pipeline is doing the right things – do the pipeline's activities get executed in the way you expect?

Source: Richard Swinbank richardswinbank.net



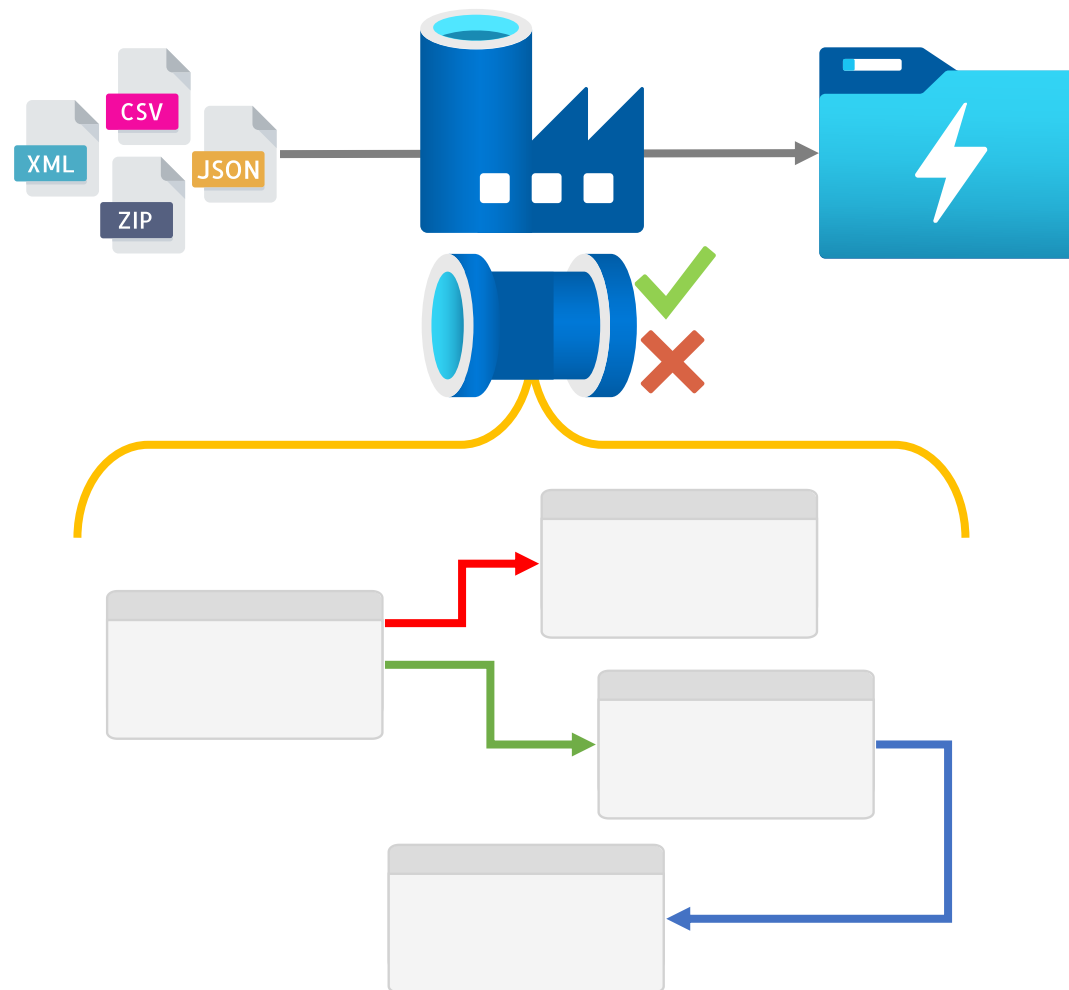
Types of Testing



What do they mean in our pipelines?

Integration Tests

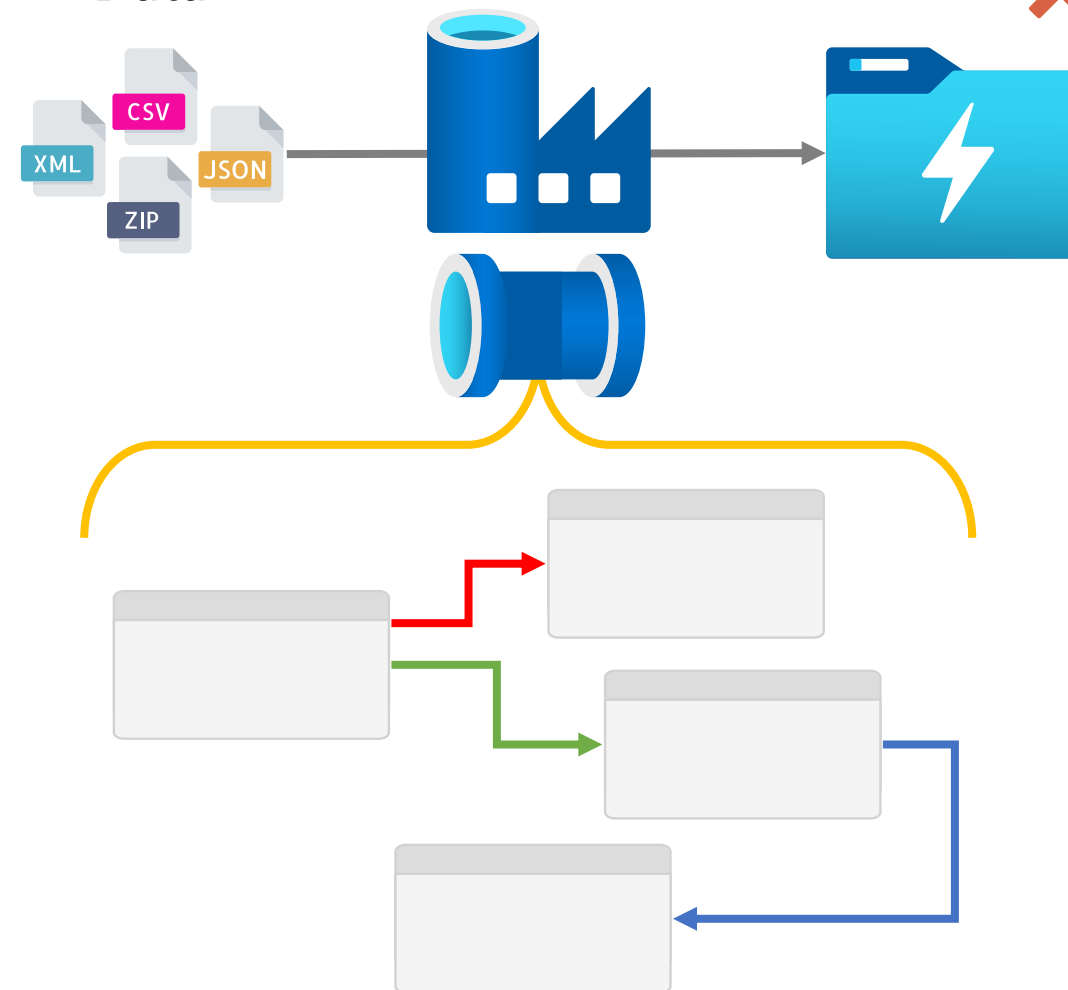
Simple Run Outcome



Functional Tests

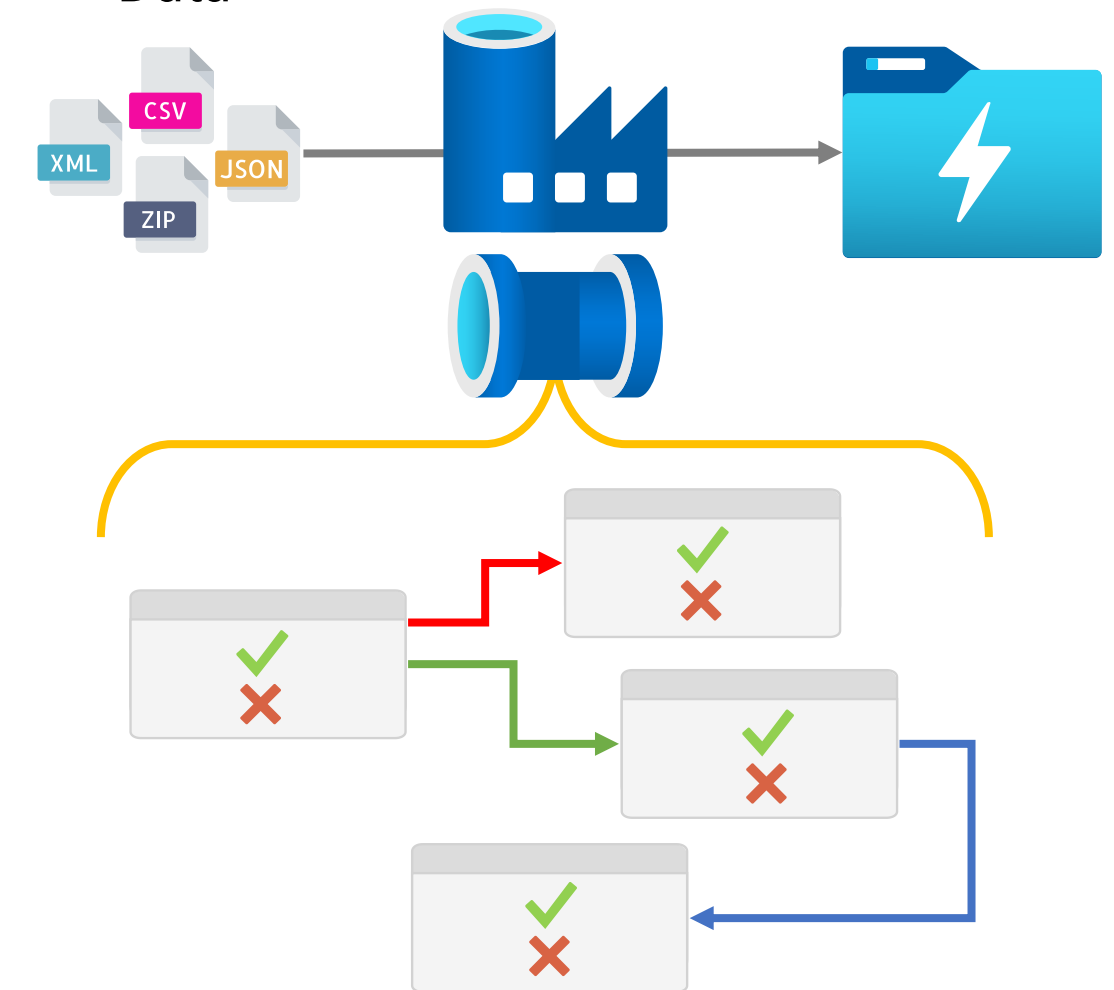
Sample Data

Specific Results ✓
✗

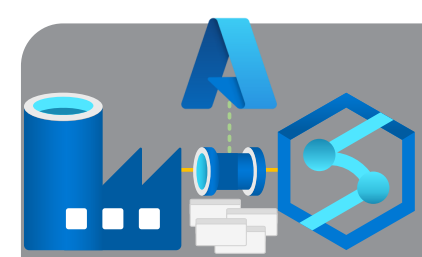


Unit Tests

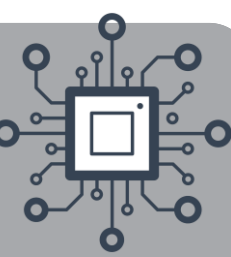
Sample Data



Specific Activity Inputs &
Outputs

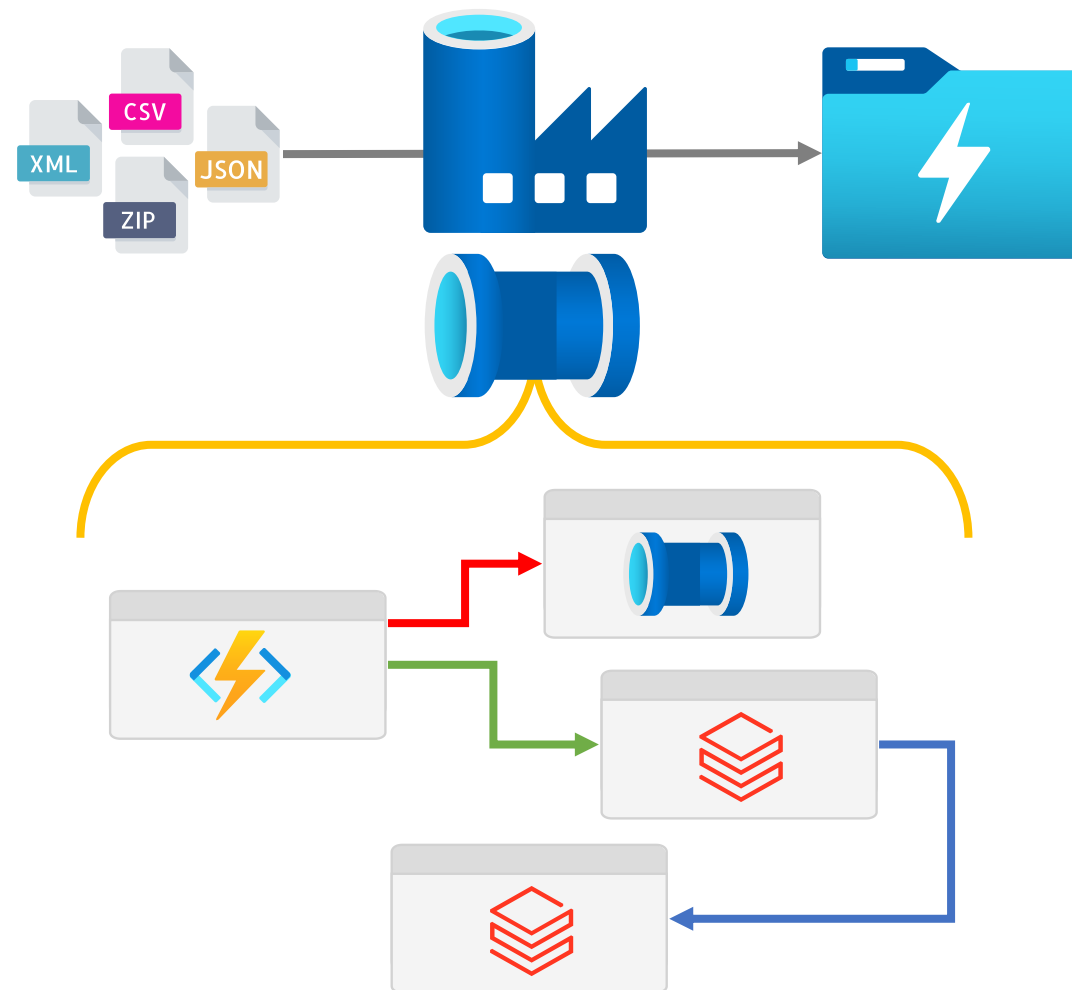


Types of Testing

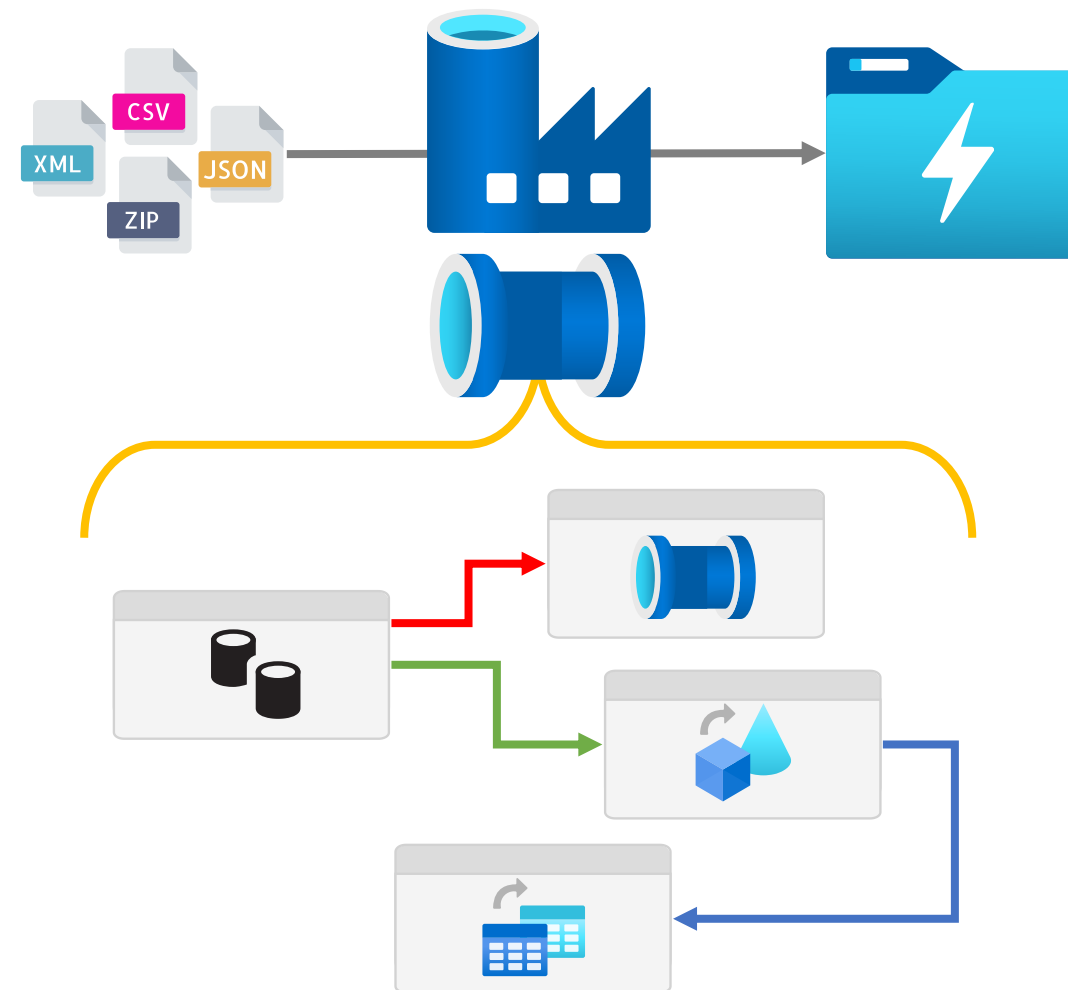


Does it depend on external resources?

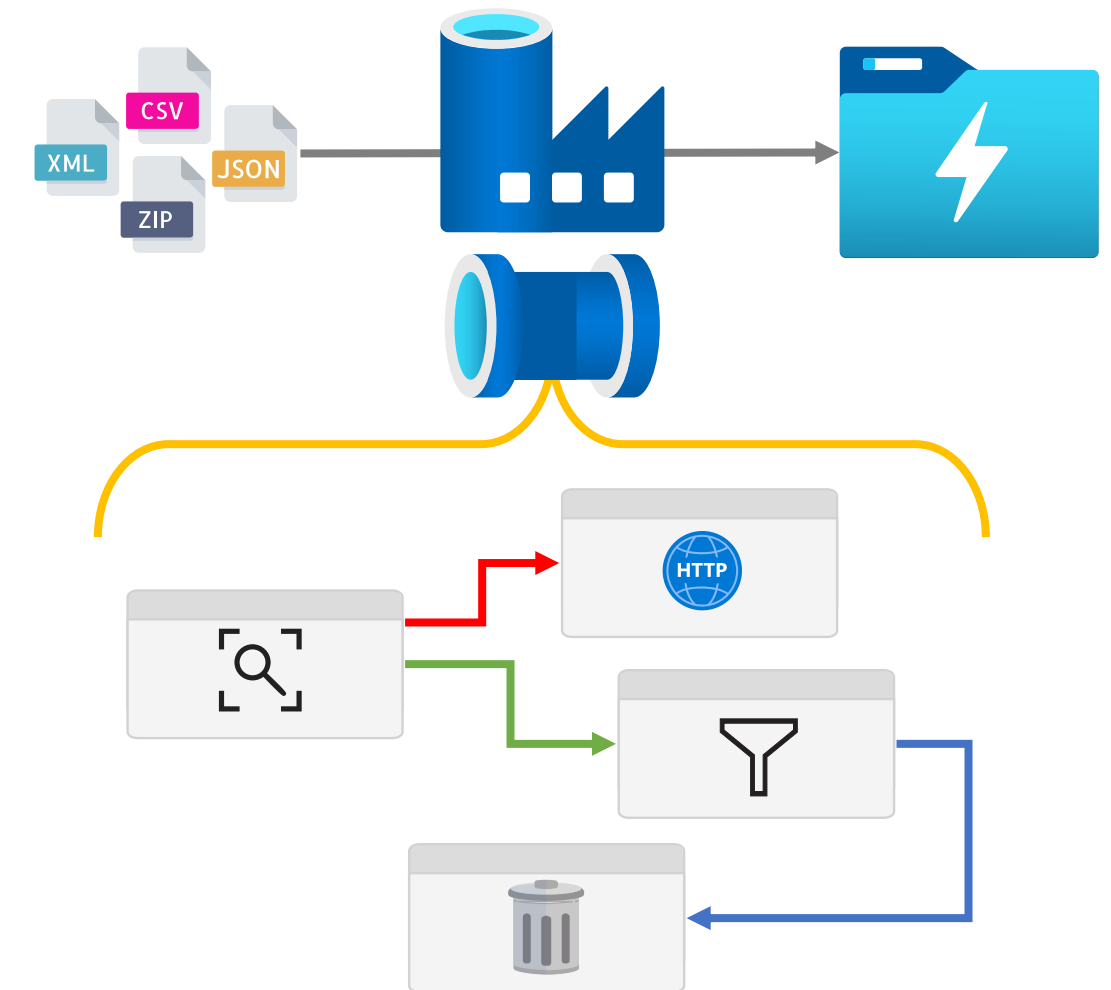
Integration Tests



Functional Tests



Unit Tests



Module 10

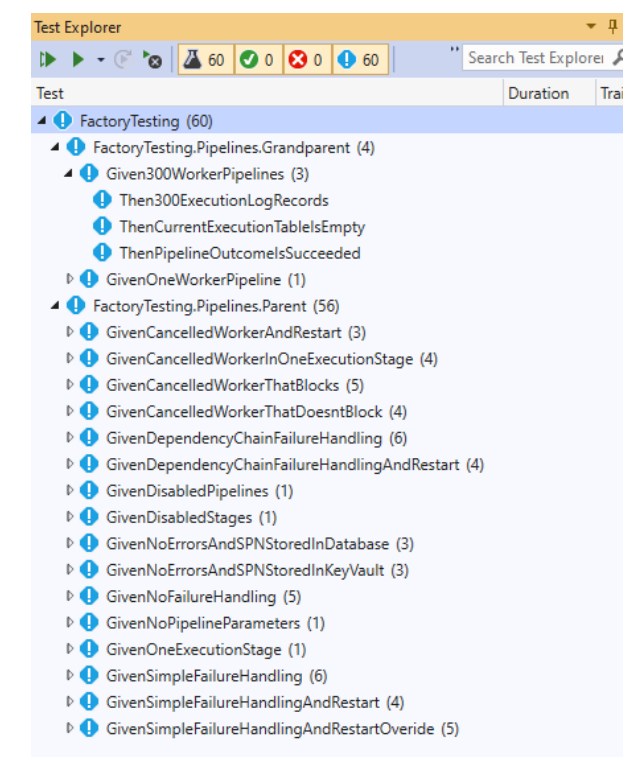
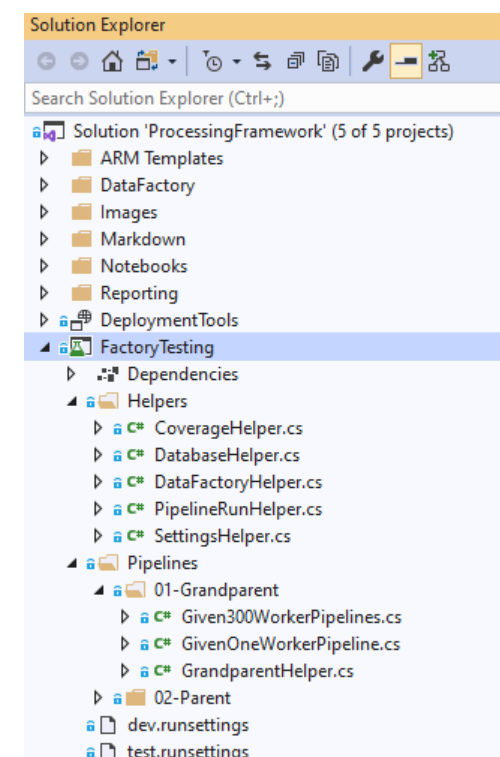
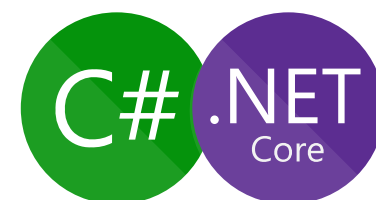
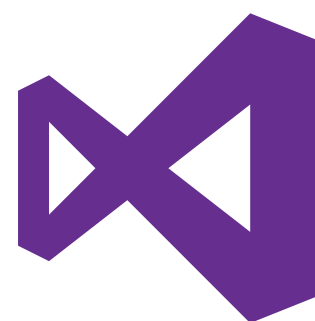
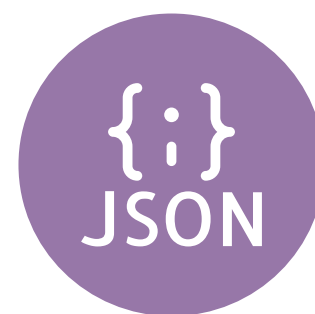
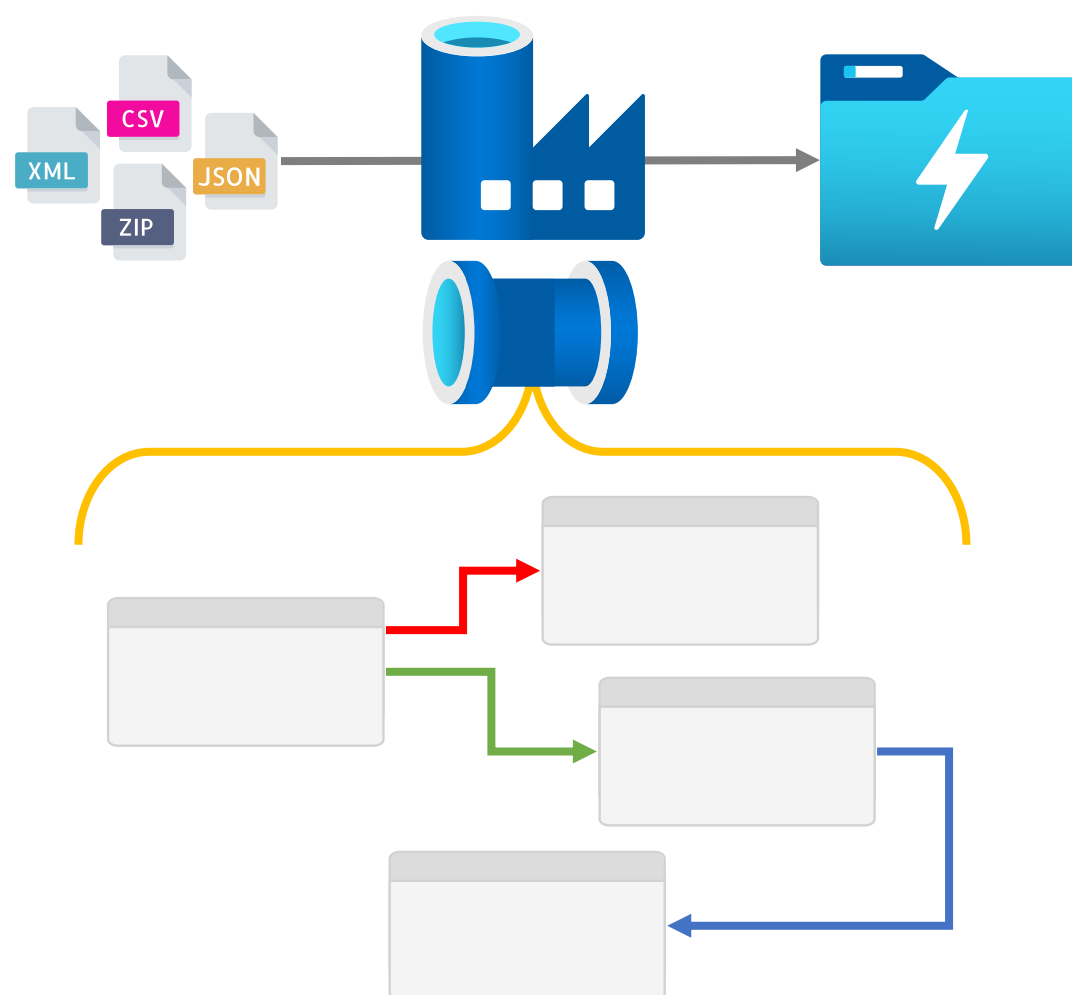
Testing



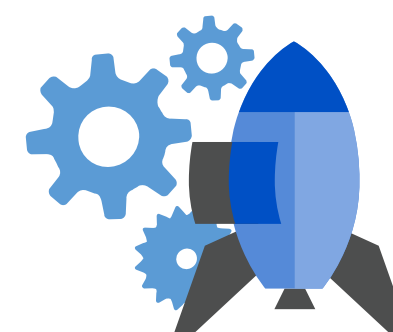
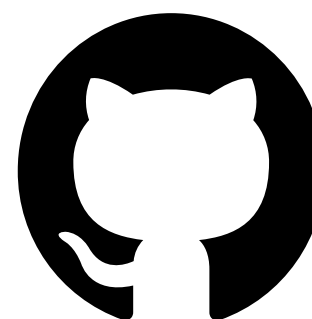
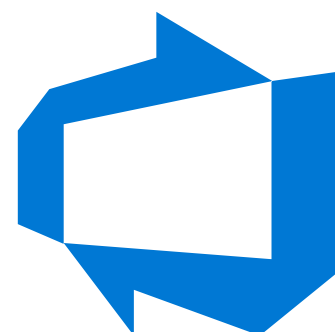
- Development Time Validation
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- NUnit Tests



How To Run & Automate Tests



github.com/richardswinbank/community/tree/main/adf-testing-series

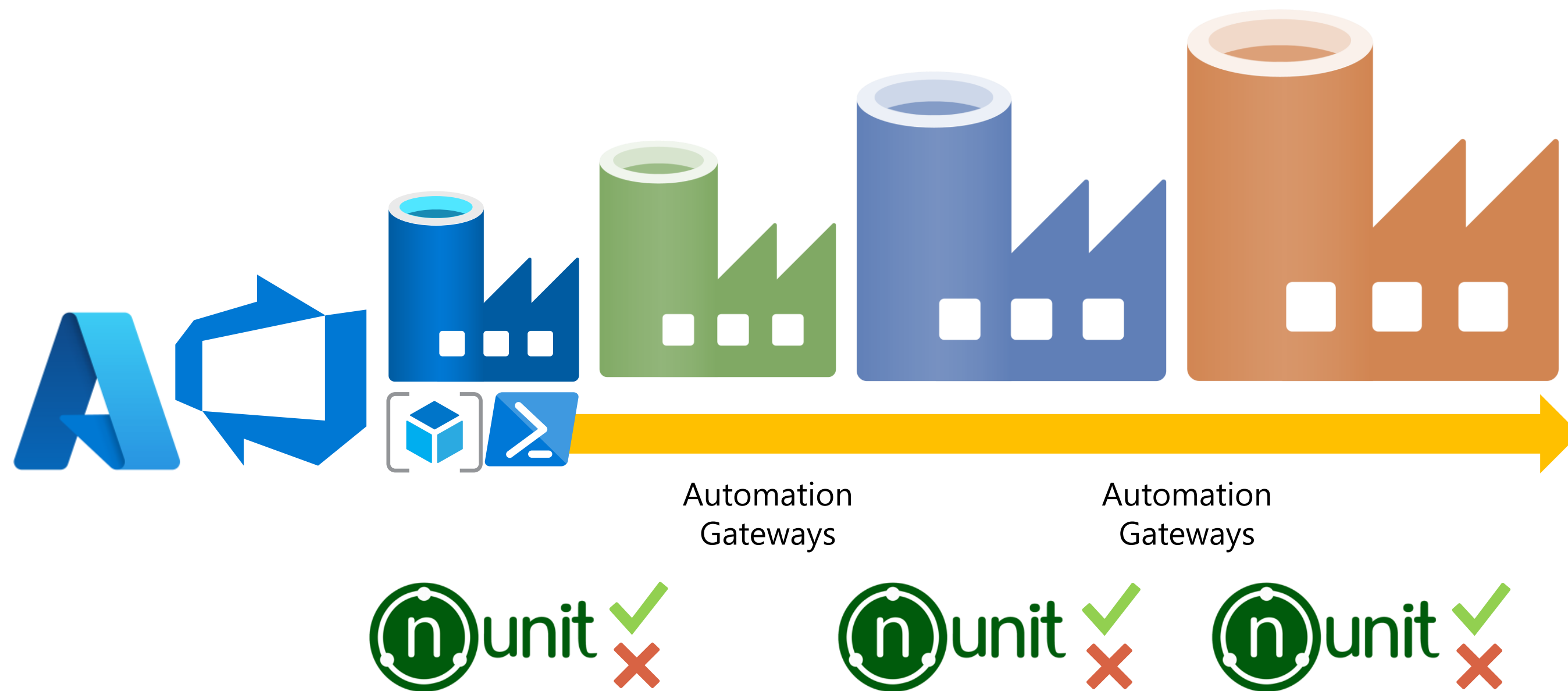




Testing Code vs Actual Code



Data Factory – Chicken vs Egg



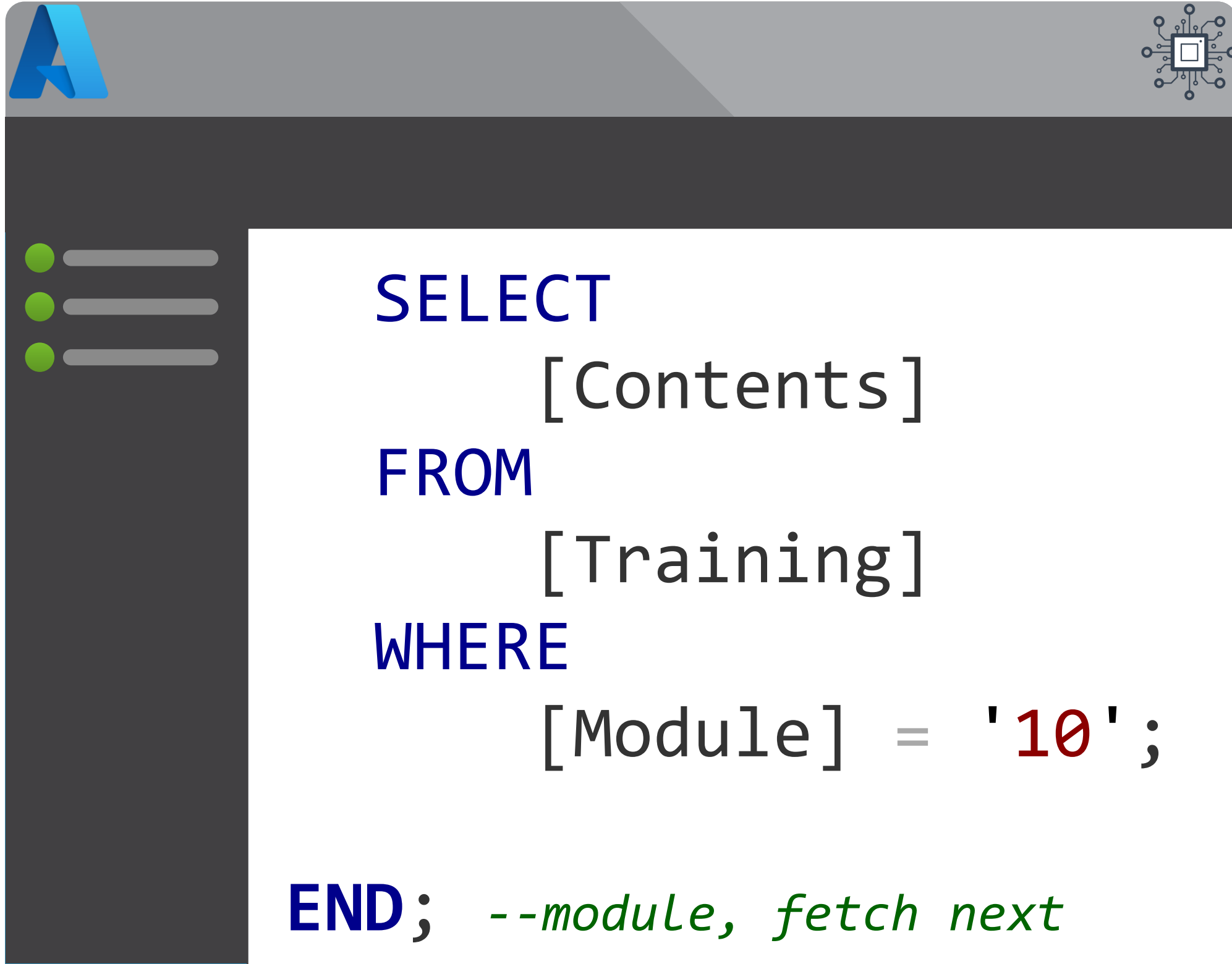
Should automate this?

When should testing scripts run?

What if a test case fails?

Module 10

Testing



- Development Time Validation
- Test Coverage
- NUnit Tests