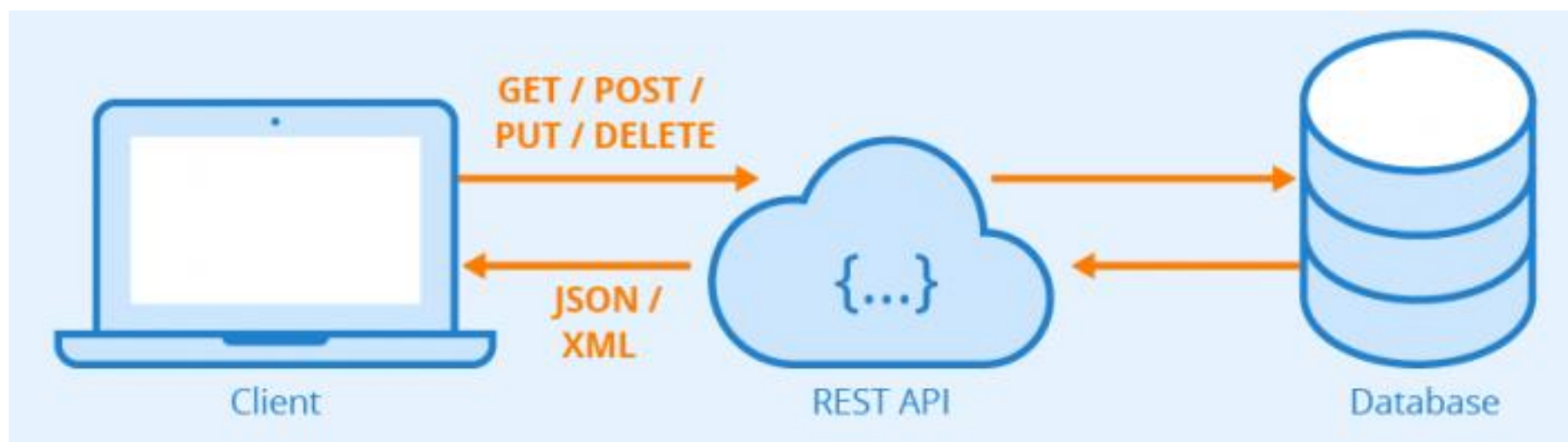


CTAP Test Automation

Images



Abbreviations

- [API](#): Application Programming Interface
- [XML](#): Extensible Markup Language
- [JSON](#): JavaScript Object Notation
- [REST](#): REpresentational State Transfer
- [SOAP](#): Simple Object Access Protocol

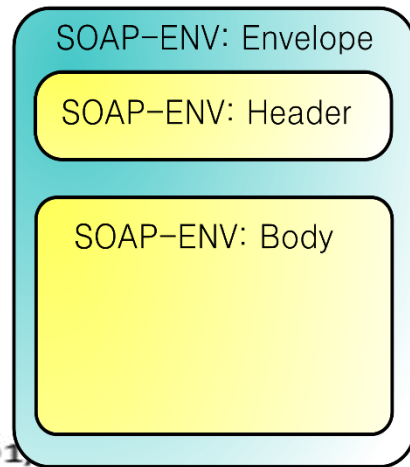
Examples of a web service

SOAP

```
POST /GetStock HTTP/1.1
Host: www.example.org
Content-Type: application/soap+xml
```

```
<?xml version="1.0"?>
<soap:Envelope
  xmlns:soap="http://www.w3.org/2001/12/soap-envelope"
  soap:encodingStyle="http://www.w3.org/2001/12/soap-encoding">

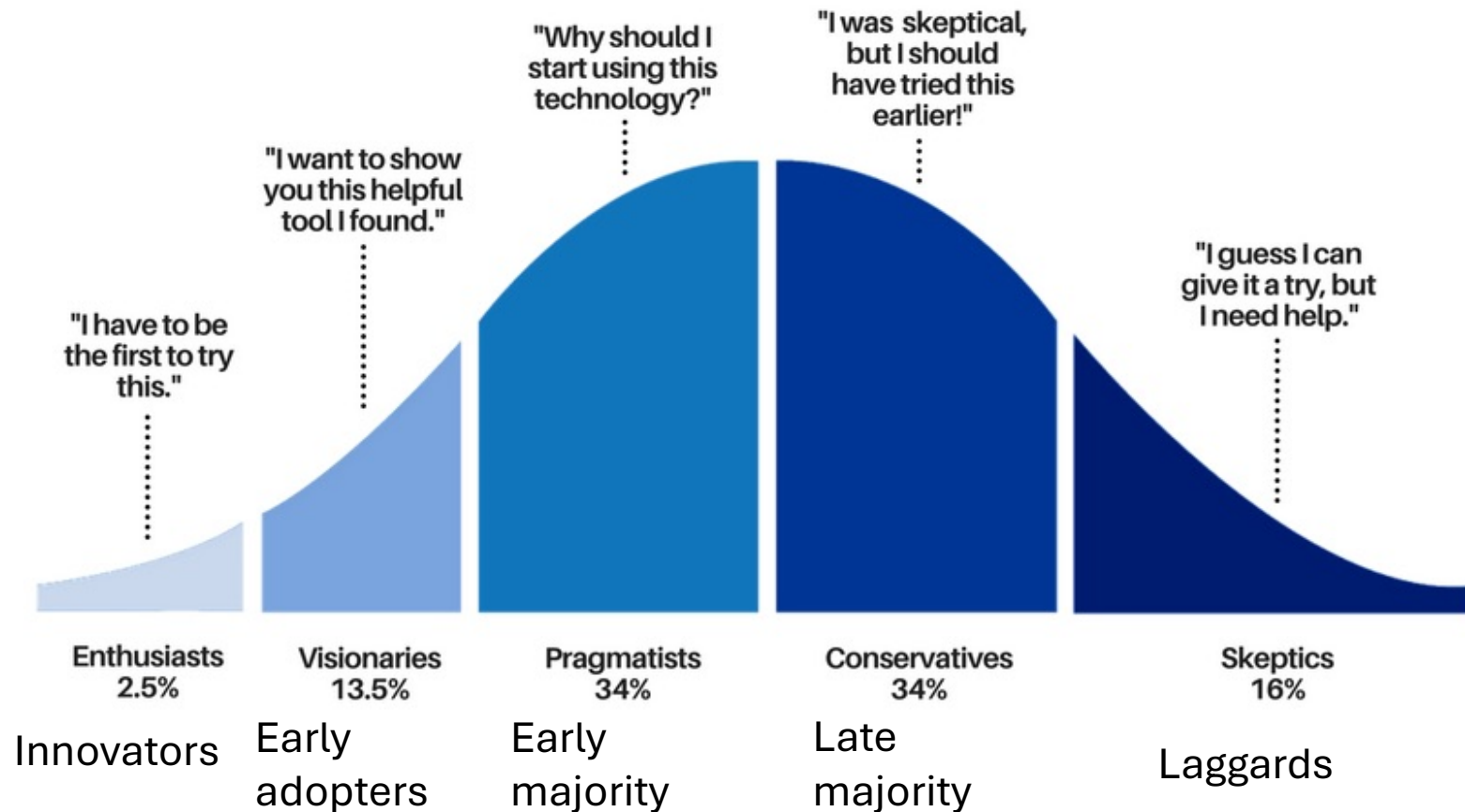
  <soap:Body xmlns:m="http://www.example.org/stock">
    <m:GetStockPrice>
      <m:StockName>IBM</m:StockName>
    </m:GetStockPrice>
  </soap:Body>
</soap:Envelope>
```



```
GET http://example.org/stock/IBM
```

Test tool selection

Tool adoption & tool selection



How to find the right tool?

PERIODIC TABLE OF DEVOPS TOOLS (V3)

Os

Open Source

Fr

Free

Fm

Freemium

Pd

Paid

En

Enterprise

Source Control Mgmt.

Database Automation

Continuous Integration

Testing

Configuration

Deployment

Containers

Release Orchestration

Cloud

AI/Ops

Analytics

Monitoring

Security

Collaboration

5

En

Xlr

Xebia Labs
XL Release

6

Fm

Aws

AWS

7

Pd

Az

Azure

8

En

Gc

Google Cloud

9

En

Op

OpenShift

10

Fm

SI

Sumo Logic

13

Os

Dk

Docker

14

En

Ur

UrbanCode
Release

15

Pd

Af

Azure
Functions

16

Pd

Ld

Lambda

17

Fm

Ic

IBM Cloud

18

Os

Fd

Fluentd

31

Os

Ku

Kubernetes

32

Fm

Cc

CA CD
Director

33

En

Pr

Plutora
Release

34

Pd

Al

Alibaba Cloud

35

Os

Os

OpenStack

36

Os

Ps

Prometheus

37

Os

At

Artifactory

38

En

Rg

Redgate

39

Pd

Ba

Bamboo

40

Fm

Vs

VSTS

41

Fr

Se

Selenium

42

Fr

Jm

JMeter

43

Os

Ja

Jasmine

44

Pd

Sl

Sauce Labs

45

Os

An

Ansible

46

Os

Ru

Rudder

47

En

Oc

Octopus
Deploy

48

Os

Go

GoCD

49

Os

Ms

Mesos

50

Pd

Gke

GKE

51

Fm

Om

Open Make

52

Pd

Cp

AWS
CodePipeline

53

Os

Cy

Cloud
Foundry

54

En

It

ITRS

55

Os

Nx

Nexus

56

Os

Fw

Flyway

57

Os

Tr

Travis CI

58

Fm

Tc

TeamCity

59

Os

Ga

Gatling

60

Fr

Tn

TestNG

61

Fm

Tt

TribesJS
Tasca

62

Pd

Pe

Perfecto

63

En

Pu

Puppet

64

Os

Pa

Packer

65

Fm

Cd

AWS
CodeDeploy

66

En

Ec

ElectricCloud

67

Os

Ra

Rancher

68

Pd

Aks

AKS

69

Os

Rk

Rkt

70

Os

Sp

Spinaker

71

Pd

Ir

Iron.io

72

Pd

Mg

Moogsoft

73

Fm

Bb

BitBucket

74

En

Pf

Perforce
HelixCore

75

Fm

Cr

Circle CI

76

Pd

Cb

AWS
CodeBuild

77

Fr

Cu

Cucumber

78

Os

Mc

Mocha

79

Os

Lo

Locust.io

80

En

Mf

Micro Focus
UFT

81

Os

Sl

Salt

82

Os

Ce

CFEngine

83

En

Eb

ElasticBox

84

En

Ca

CA Automate

85

En

De

Docker
Enterprise

86

Pd

Ae

AWS ECS

87

Fm

Cf

Codefresh

88

Os

Hm

Helm

89

Os

Aw

Apache
OpenWhisk

90

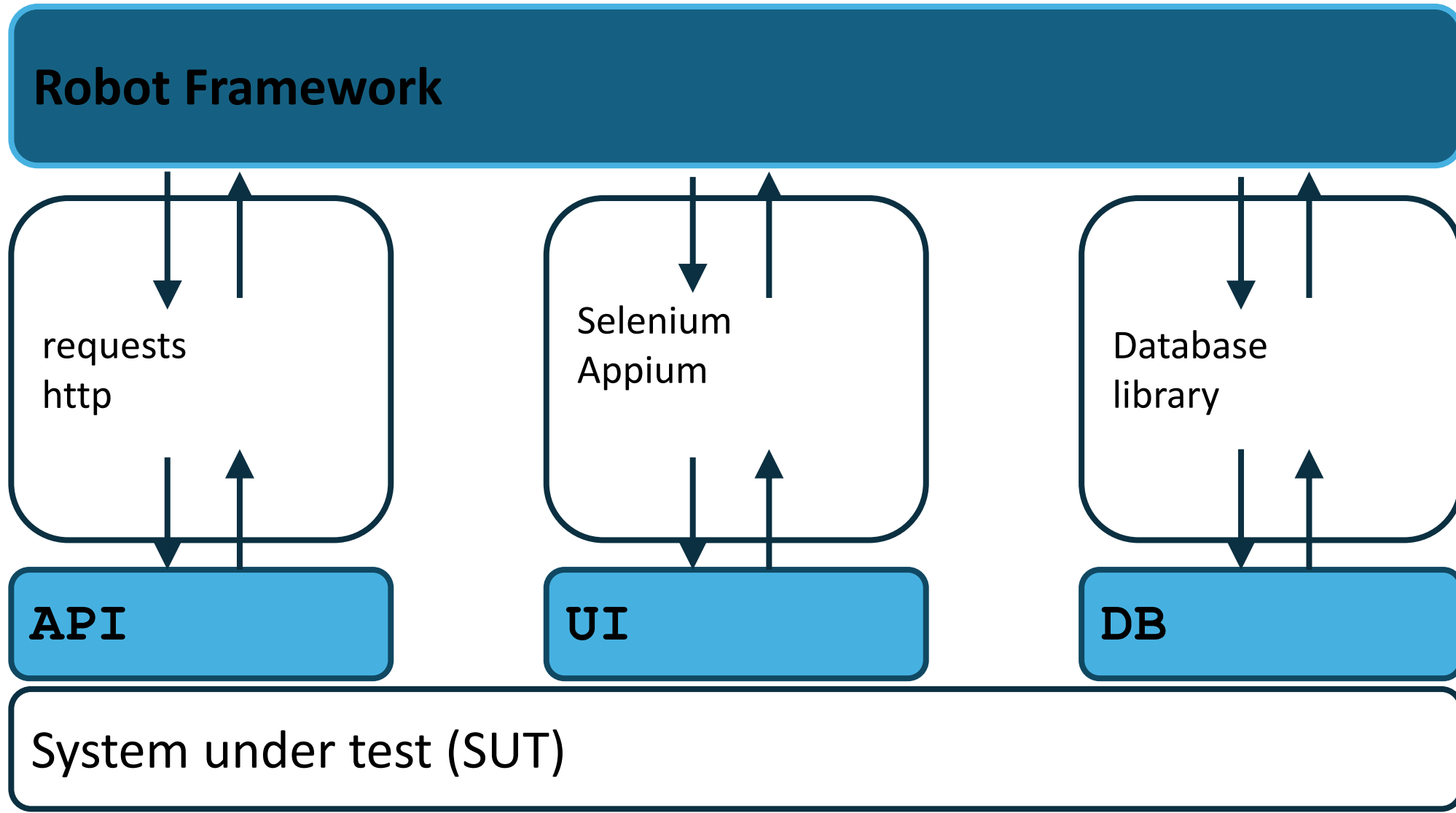
Os

Ls

Logstash

91En	92Os	93Fm	94En	95En	96Fm	97Os	98Os	99Os	100En	101En	102En	103En	104Os	105Os
Xli XebiaLabs XL Impact	Ki Kibana	Nr New Relic	Dt Dynatrace	Dd Datadog	Ad AppDynamics	El ElasticSearch	Ni Nagios	Zb Zabbix	Zn Zendesk	Cx Checkmarx SAST	Sg Signal Sciences	Bd BlackDuck	Sr SonarQube	Hv HashiCorp Vault
106En	107Pd	108Fm	109Fm	110Fm	111En	112En	113En	114Pd	115Pd	116Os	117Os	118En	119En	120En
Sw ServiceNow	Jr Jira	Tl Trello	Sl Slack	St Stride	Cn CollabNet VersionOne	Ry Remedy	Ac Agle Central	Og OpsGenie	Pd Pagerduty	Sn Snort	Tw Tripwire	Ck CyberArk Conjur	Vc Veracode	Ff Fortify SCA

Architecture



The structure for ordering test cases

```
*** Settings ***
Documentation
Library

*** Variables ***
${MESSAGE}

*** Test Cases ***
My Test

Another Test

*** Keywords ***
My Keyword
```

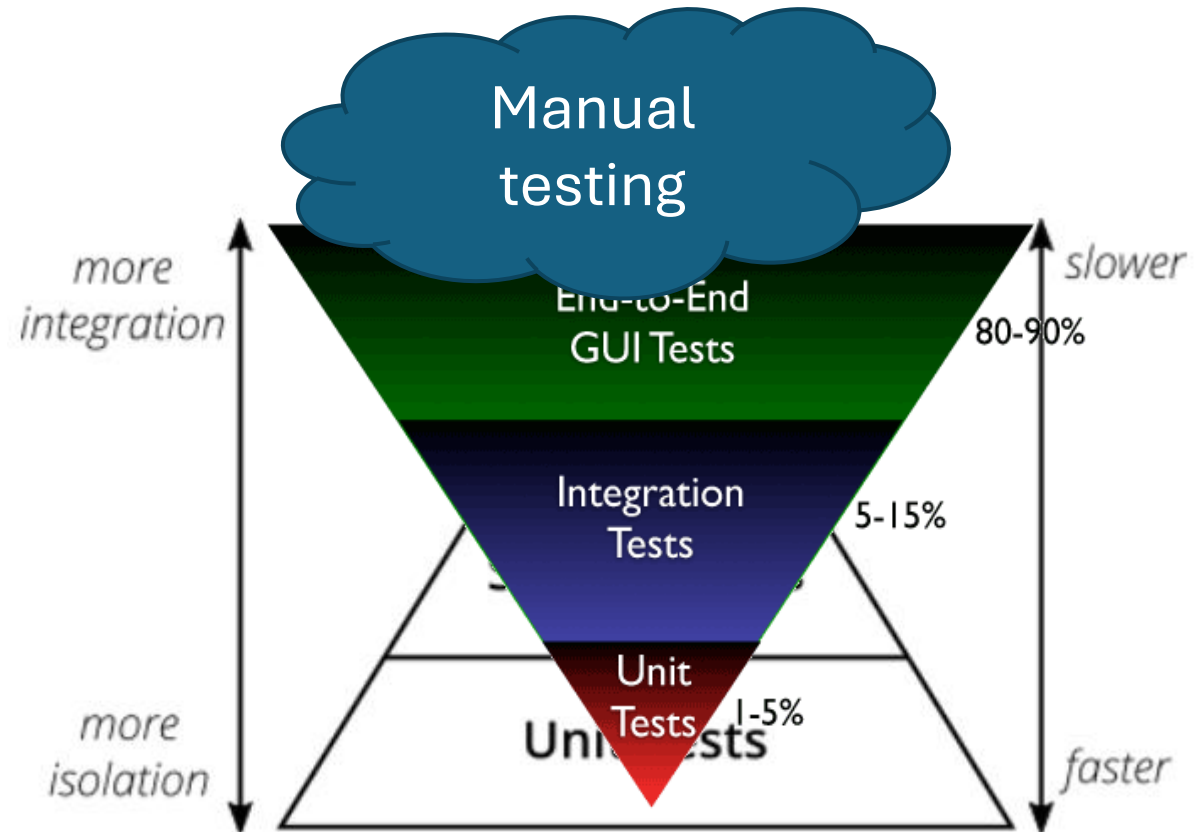
Sections	To be used for
Settings	1) Importing test libraries , resource files and variable files 2) Defining metadata for test suites and test cases
Variables	Defining variables that can be used elsewhere in the test data
Test Cases	Creating test cases based on available keywords
Tasks	Creating tasks using available keywords.
Keywords	Creating user keywords based on existing keywords
Comments	Additional comments or information. Ignored by Robot Framework

Test roles

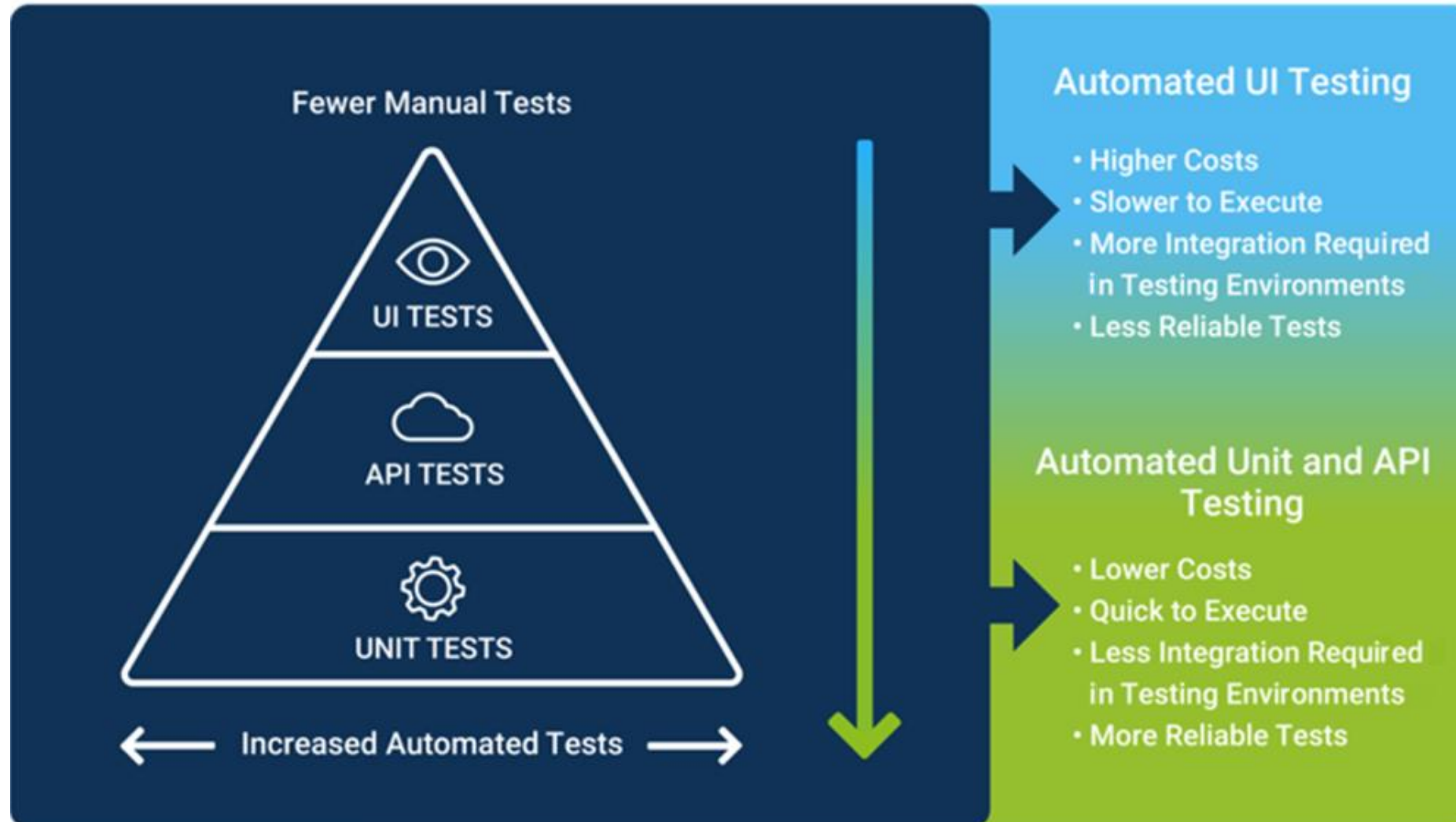


What is a testing pyramid?

- Testing pyramid is a framework that can facilitate both developers and testers in building high-quality software
- The testing pyramid describes the test types that the development and QA teams should incorporate in an automated test suite

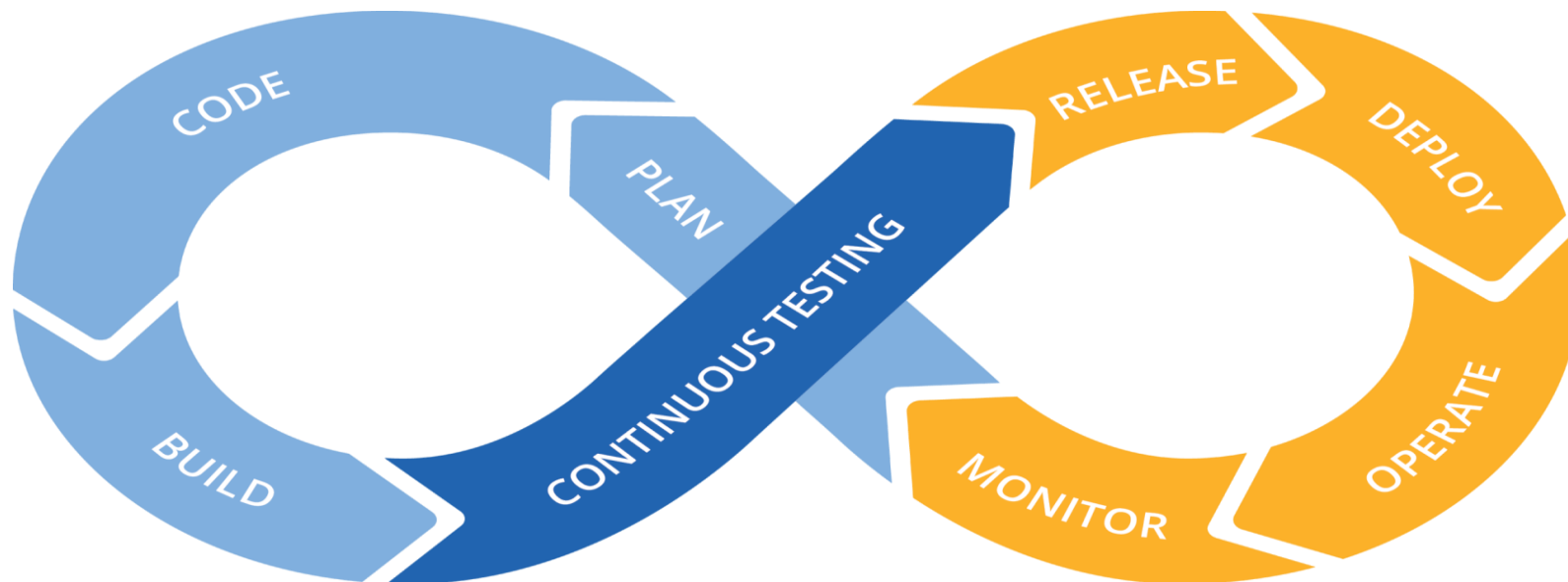


Testing pyramid



What is continuous testing?

Continuous testing is the process of running automated tests as part of the software delivery pipeline in order to get feedback on the business risks of a delivery as quickly as possible

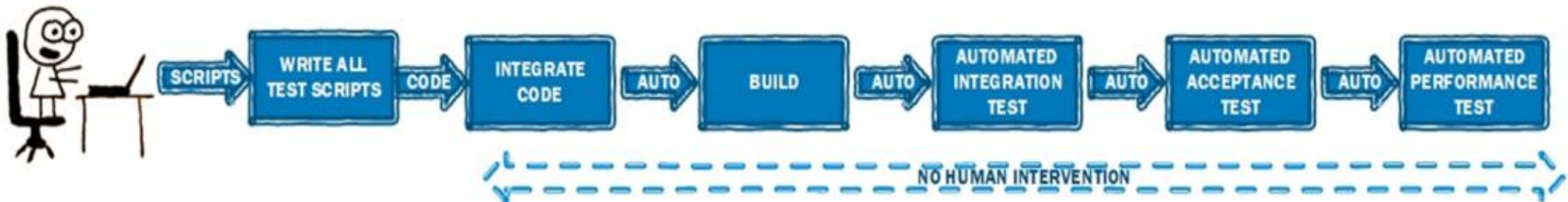


Continuous testing

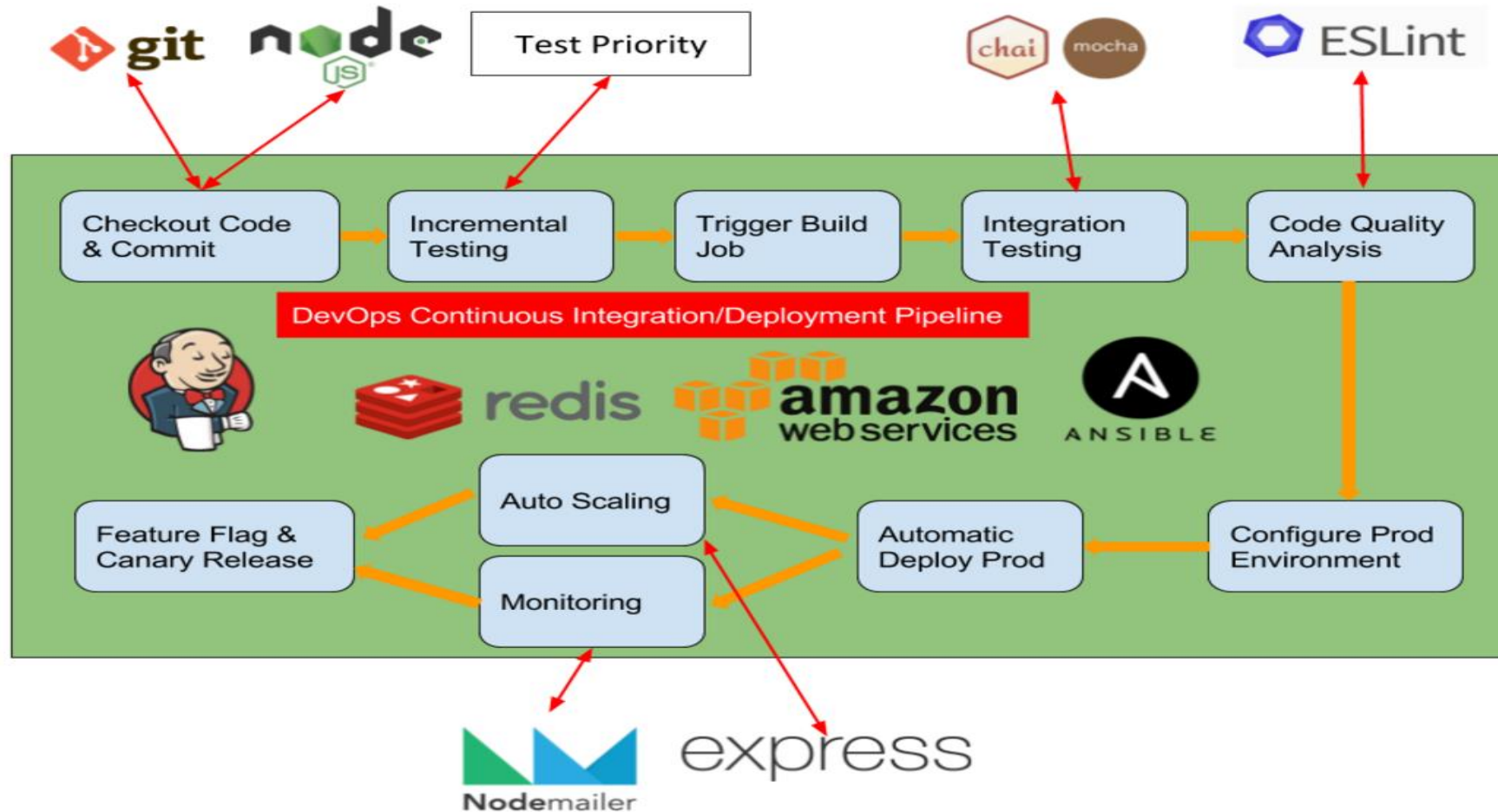
AUTOMATED TESTING



CONTINUOUS TESTING



Deployment pipeline



Deployment pipeline

