What to Test, and When?

Continuous Delivery gets us fast and frequent feedback from our customers and our tests, to enable us to learn, make evidence-based decisions and improve our software.

Throughout the development process there are many opportunities to monitor, measure and evaluate our software, and lots of different types of tests.

At Commit – Development supporting tests. Fast, lightweight, technical tests which give developers fast feedback; and other checks that the code does what the developer expects it to, and that increase confidence in the code.

Acceptance – Defining Releasability. More user-centred tests to evaluate the code from the users' perspective, and everything else that we need to check to know that the software is sufficiently fast, scalable, secure, resilient and fulfils its purpose.

At Release – What we need to check at the point that we are ready to release the software into Production.

In Production – Once in Production, how do we understand how our software performs. What do our customers make of it? What can we learn that informs business or technical decisions. How can we continue to learn and enhance our products?

This guide provides a simple framework to support the development of a testing strategy:
How to choose what types of tests to do, and when.

More Information

Watch my YT video about Testing Strategy for DevOps https://youtu.be/z-3aSVfoyBY

Find other videos on my Continuous Delivery YouTube channel https://bit.ly/CDonYT about Test Driven Development, Acceptance Testing, Success Measures, Deployment Pipelines, and lots of other Continuous Delivery topics.

My book "Continuous Delivery Pipelines" is available in paperback on Amazon https://amzn.to/3gIULIA, or eBook at https://leanpub.com/cd-pipelines

Take a look at https://bit.ly/DFTraining for my on-line courses

Commit

Unit Test
Coding Standards Asserted
Common Error Detection
Static Analysis
Data Migration Unit Tests
...

Anything that can
FAIL FAST!

Acceptance

Acceptance Tests
(BDD style Exec. Specs)
Deployment Tests
Configuration Tests
Security Tests
Data Migration Tests
Performance Tests
Scalability
Resilience
Compliance
...

Anything that defines
RELEASABLE!

Release

Smoke Tests/Health Check
Canary Release Testing
Monitoring
Exception Tracking
...

Anything that
SUPPORTS RELEASE!

Production

Capacity Monitoring
Technical Monitoring
Performance Verification
Security Verification
...
A/B Testing
Biz Experiments in Prod
Commercial Performance
...

Anything that Informs
PRODUCT DESIGN!