

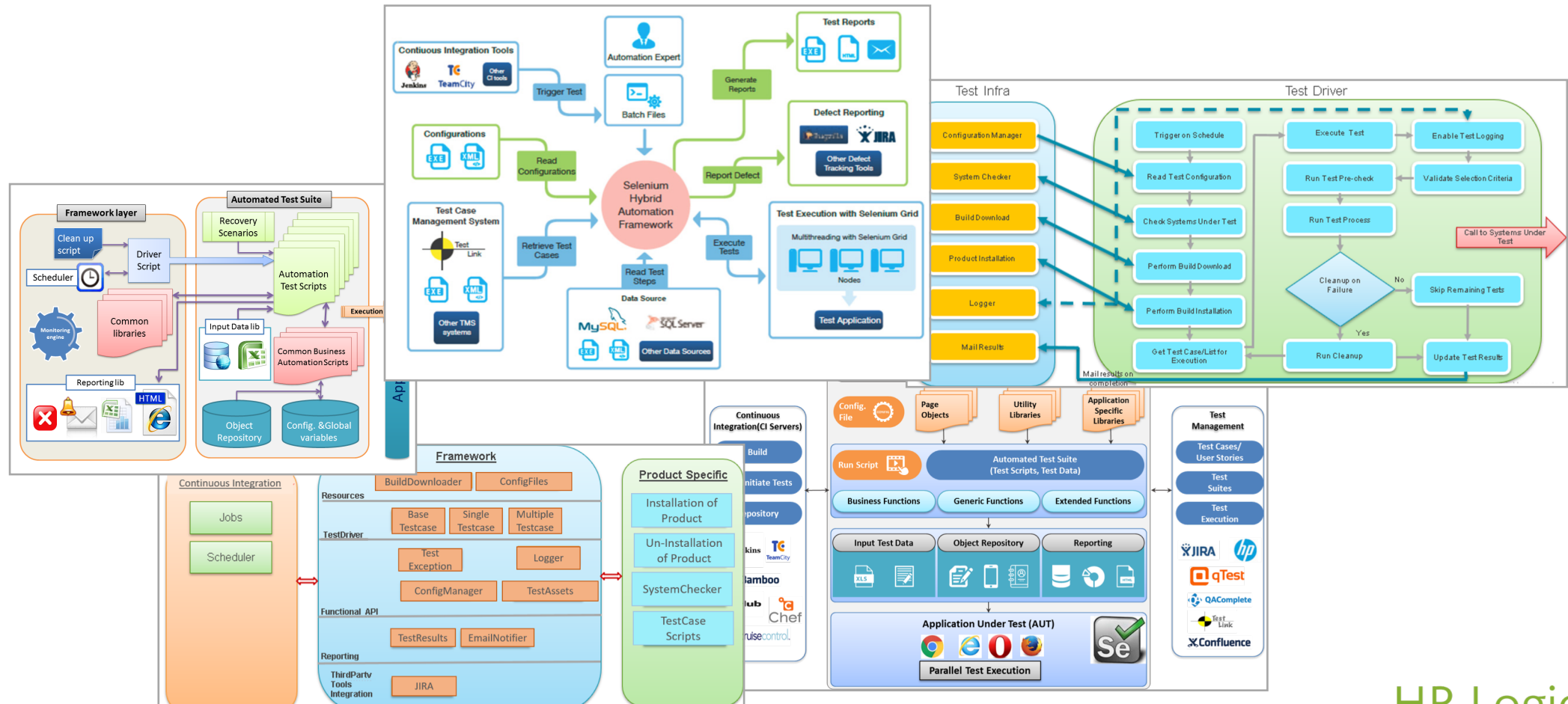


Anatomy of an Open Source Test Framework

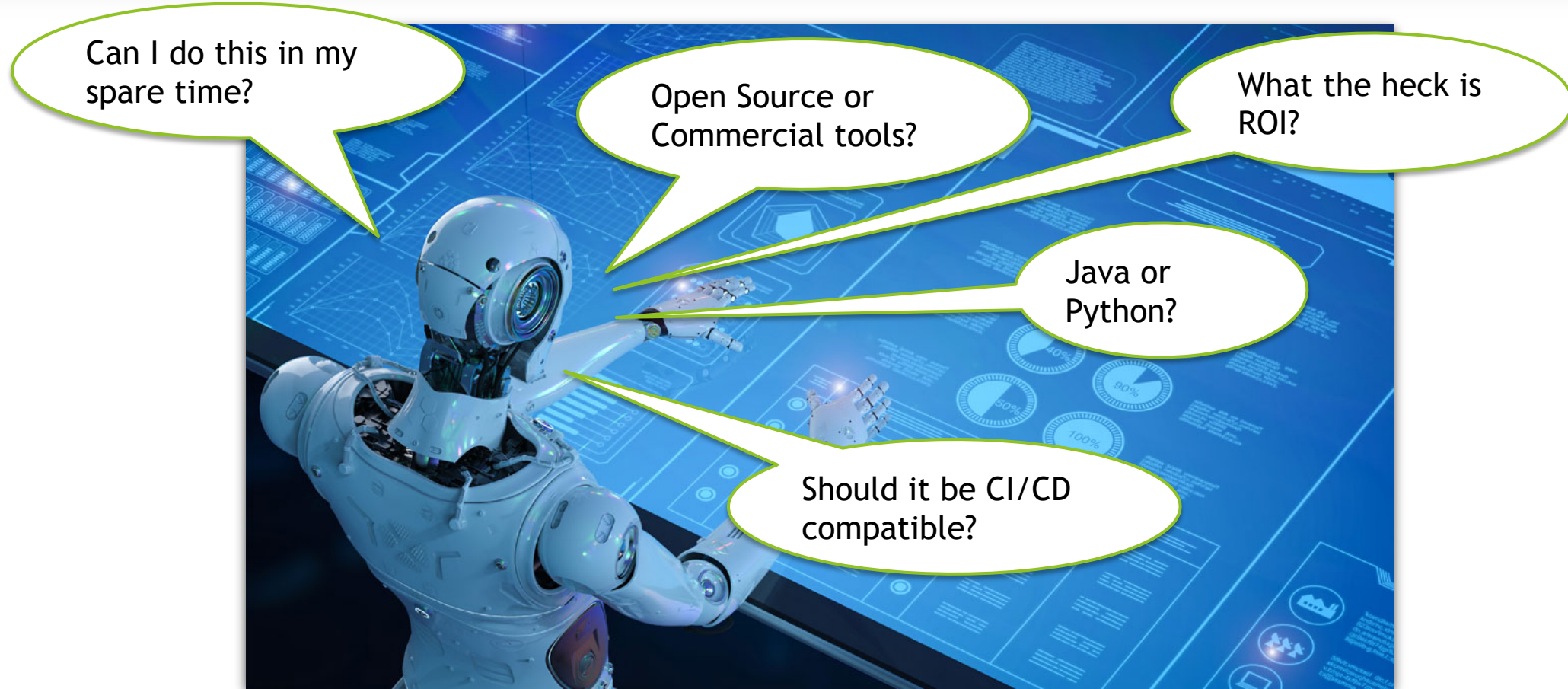
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Co-Founder | CTO

Frameworks can be Confusing...

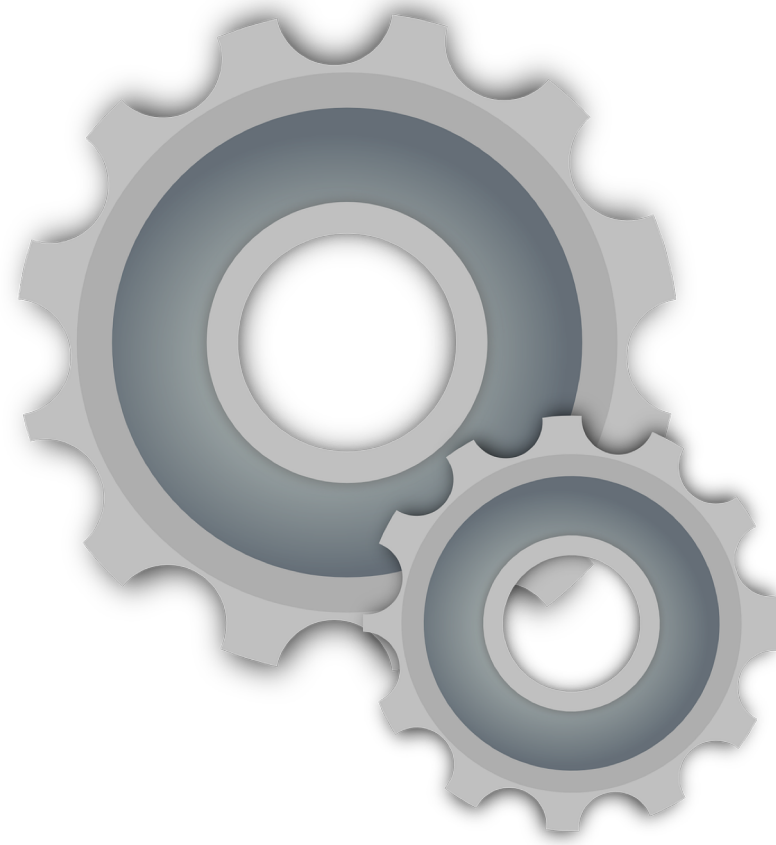


How to Build One is a Daunting Task!



Framework Key Parameters

- ❑ AUT Test flows
- ❑ Separating test data from scripts
- ❑ Creating and running tests
- ❑ Programming language
- ❑ Supporting libraries
- ❑ Coding standards
- ❑ Version Control
- ❑ Reporting and Logging
- ❑ Maintainability
- ❑ CI/CD
- ❑ Tools



Things You Will Need...

- IDE (*i.e. Eclipse, NetBeans, IntelliJ*)
- Programming Language (*i.e. Java, C#, Python*)
- Tools to interact with AUT (*i.e. Selenium, UFT, PostMan, SoapUI*)
- Logger and Reporter (*i.e. Log4J, Extent*)
- Utilities to support test case execution (*TestNG, Selenium Grid*)

Imagery Exercise



- You have a standard eCom web app developed in Java.
- You want to test various end user flows programmatically such as:
 - Searching for a product
 - Adding, deleting, updating cart
 - Checkout with various payment types
 - Confirmation of purchase
- Where do you start?
 - Begin with end in mind!

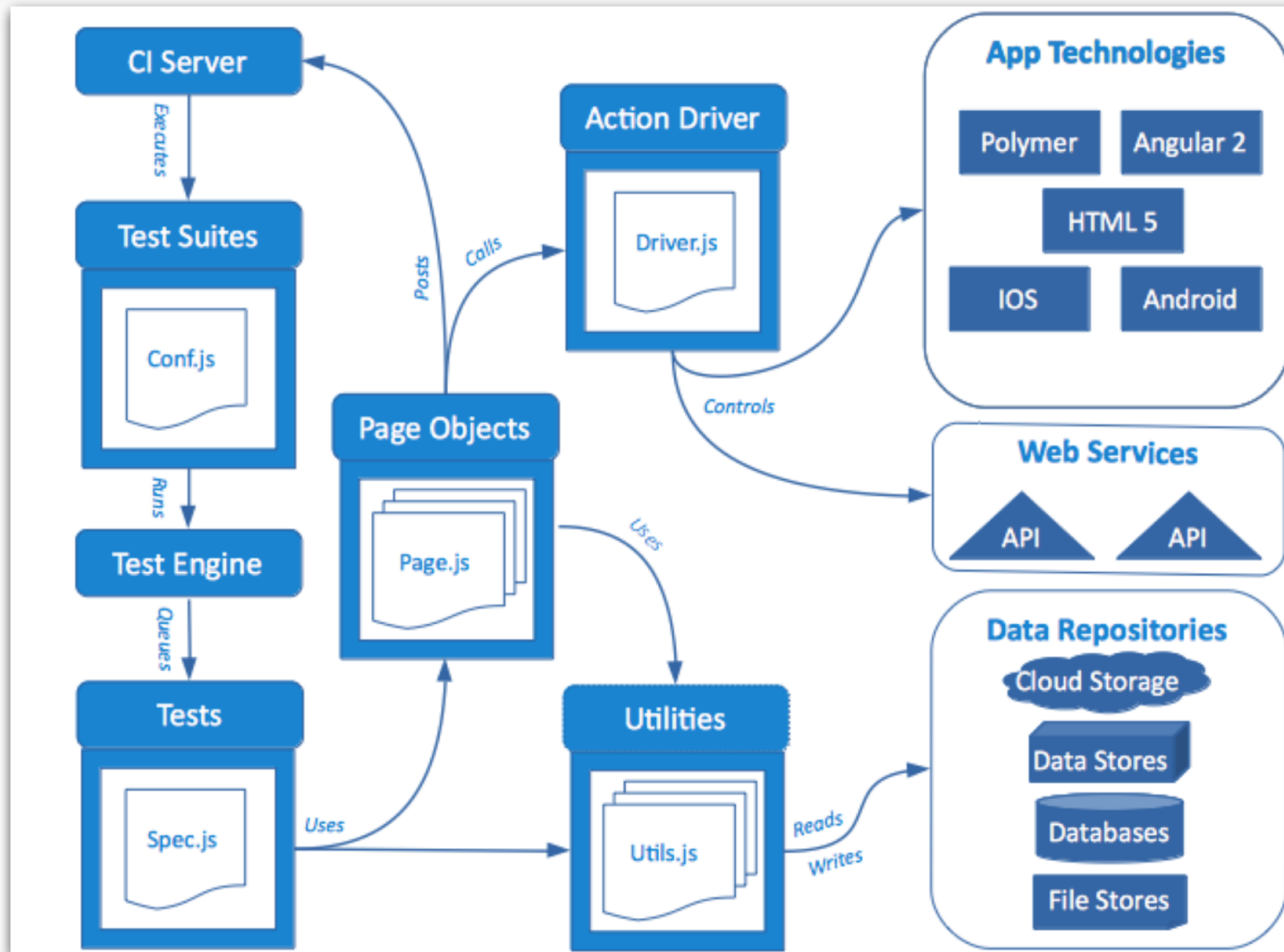
Selection Process

- Pick a programming language aligned with core competency of the organization.
 - In this case, we will pick Java
- Choose an IDE that is widely used within your organization.
 - Let's choose Eclipse
- We need a tool for controlling application under test.
 - How about Selenium?
- How about a tool to handle prioritized test execution flow and reporting results?
 - Maybe consider TestNG?

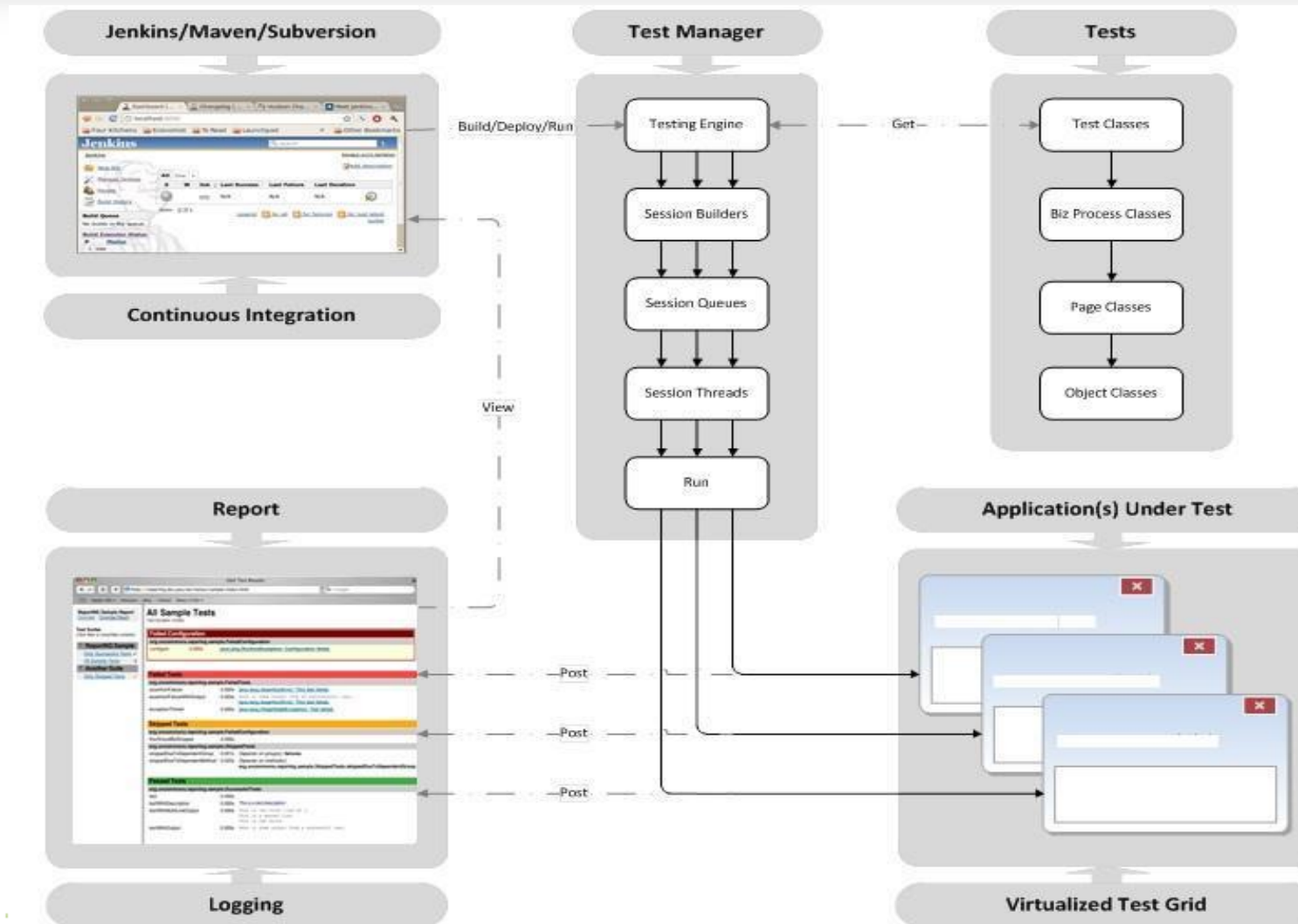
Top Frameworks



Framework Concept



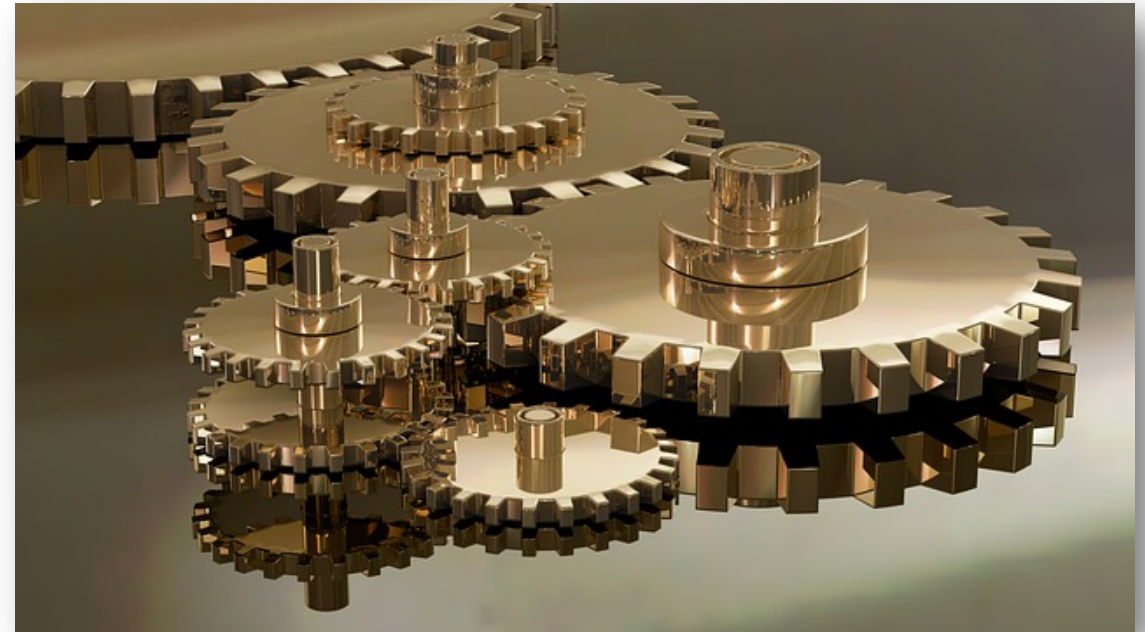
Hybrid Framework Example



✓ Value = Why / How

Summary

- Begin with end in mind
- Pick tools and techniques that support short and long range goals
- Focus on disciplined approach
- Assign appropriate personnel to design and develop solution
- Apply appropriate development standards and controls
- Continuously review artifact inventory to ensure testing coverage and validity



Thank You!

