

Integrating Unit Tests in Your Development and Release Flows



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Coming Up



Running tests with the CLI

Comparing test runners with test frameworks

Testing in parallel

Testing against multiple target frameworks

Integrating testing in your CI/CD pipeline



Demo



Running tests with the CLI



Test runner

The program (or maybe a third-party plugin to a program) that is responsible for looking for one or more assemblies with tests in them and activating the test frameworks that it finds in those assemblies



Test framework

The code that has detailed knowledge of how to discover and run unit tests



**Running tests in parallel
allows a set of tests to
finish faster, locally and on
your build server**

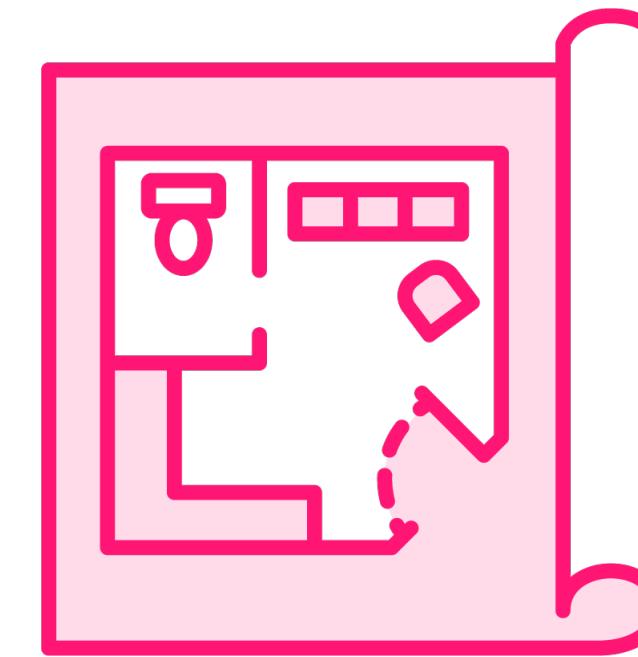


Running Tests in Parallel



Test runner

A runner can support running different test assemblies in parallel



Test framework

A framework can support running tests within a single assembly in parallel



Demo



Parallelism in test frameworks



Demo



Parallelism in test runners



Running Tests Against Multiple Target Frameworks

xUnit supports running tests against multiple target frameworks

- Useful when developing frameworks or libraries

You want to ensure your library correctly functions across target frameworks



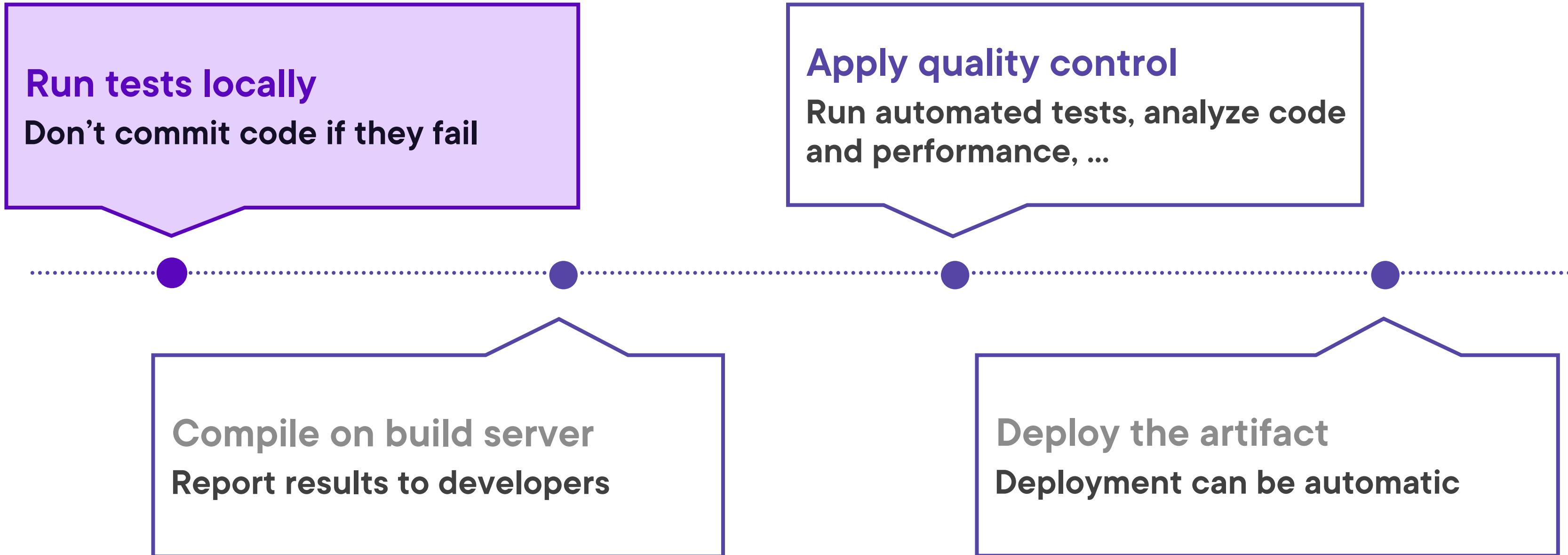
Demo



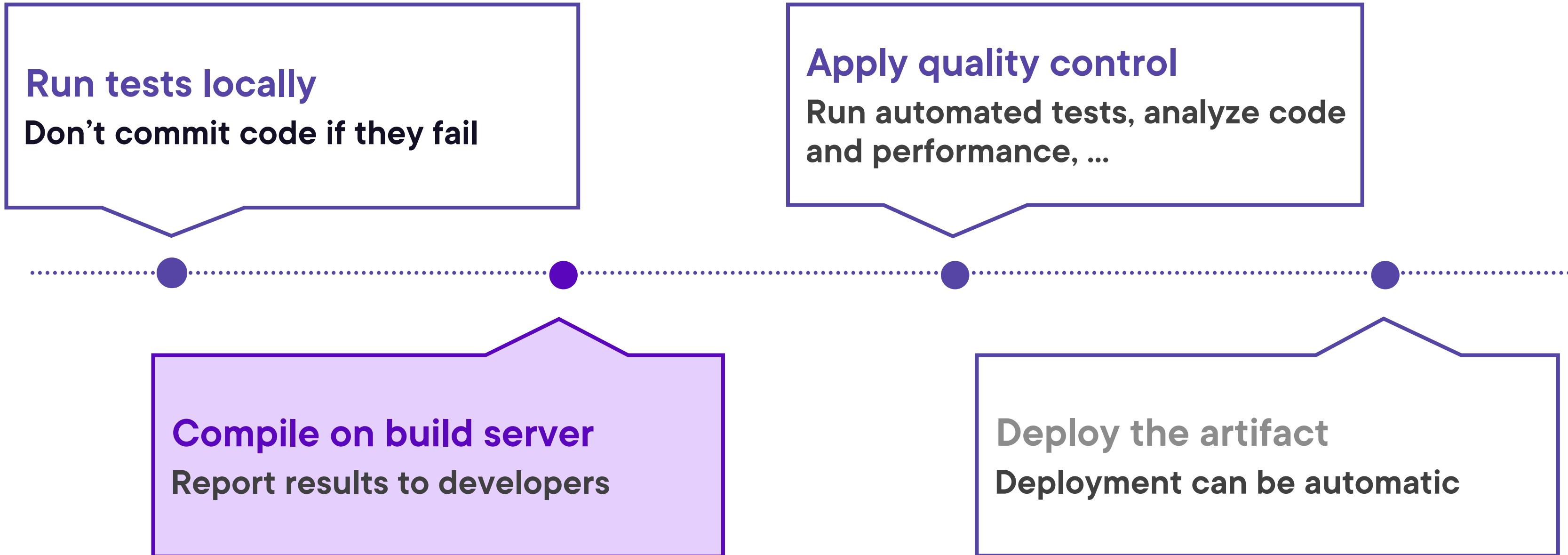
Running tests against multiple target frameworks



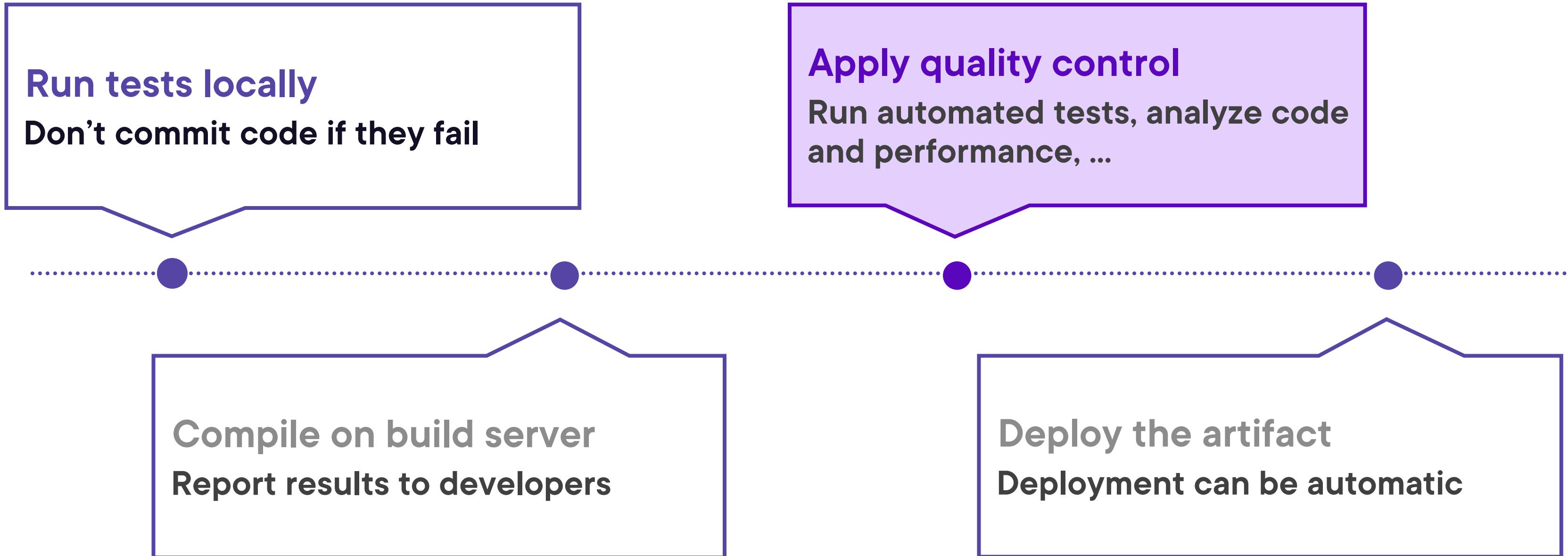
Integrating Unit Tests in Your CI/CD Pipeline



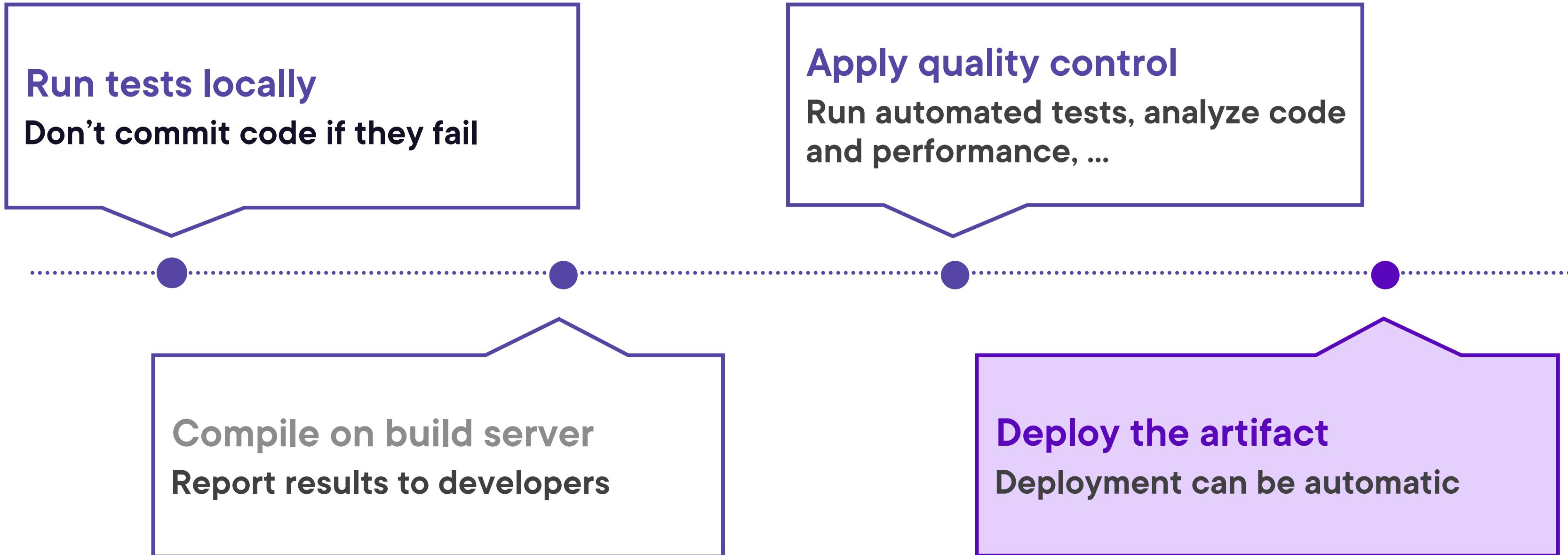
Integrating Unit Tests in Your CI/CD Pipeline



Integrating Unit Tests in Your CI/CD Pipeline



Integrating Unit Tests in Your CI/CD Pipeline



Demo



**Integrating unit tests in your
CI/CD pipeline**



Summary



A test runner: the program responsible for looking for one or more assemblies with tests in them and activating the test frameworks that it finds in those assemblies

A test framework: the code that has detailed knowledge of how to discover and run unit tests



Summary



Run tests with the CLI via `dotnet test`

Integrate test in your CI/CD pipeline

Tests can run in parallel and target different frameworks



The End is Nigh...



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You're ready
to be
AWESOME!

