INTRODUCTION TO DOCKER

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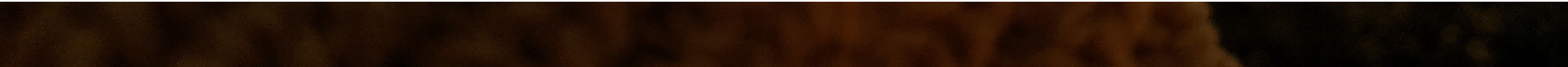
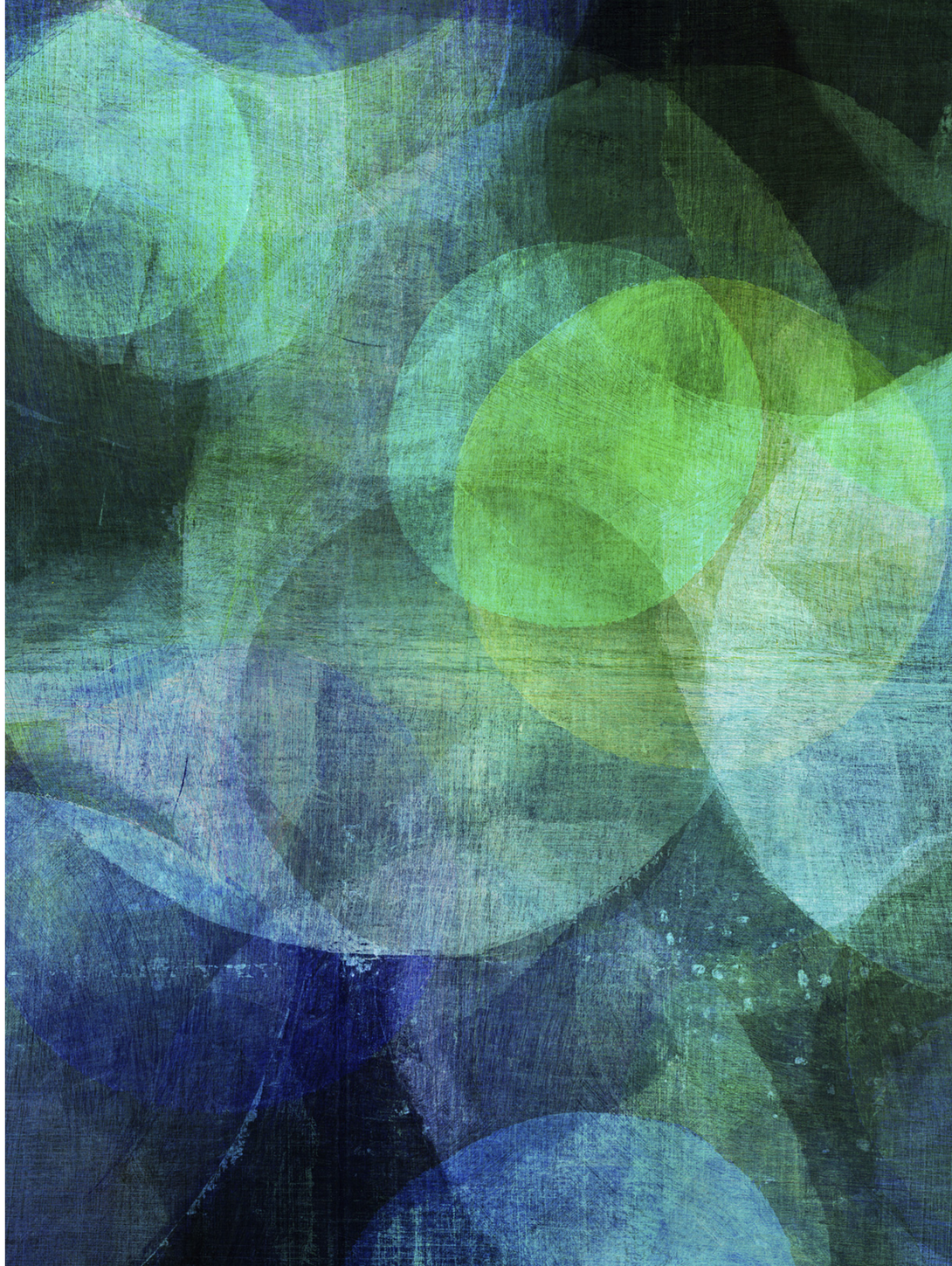
Docker in Continuous Integration

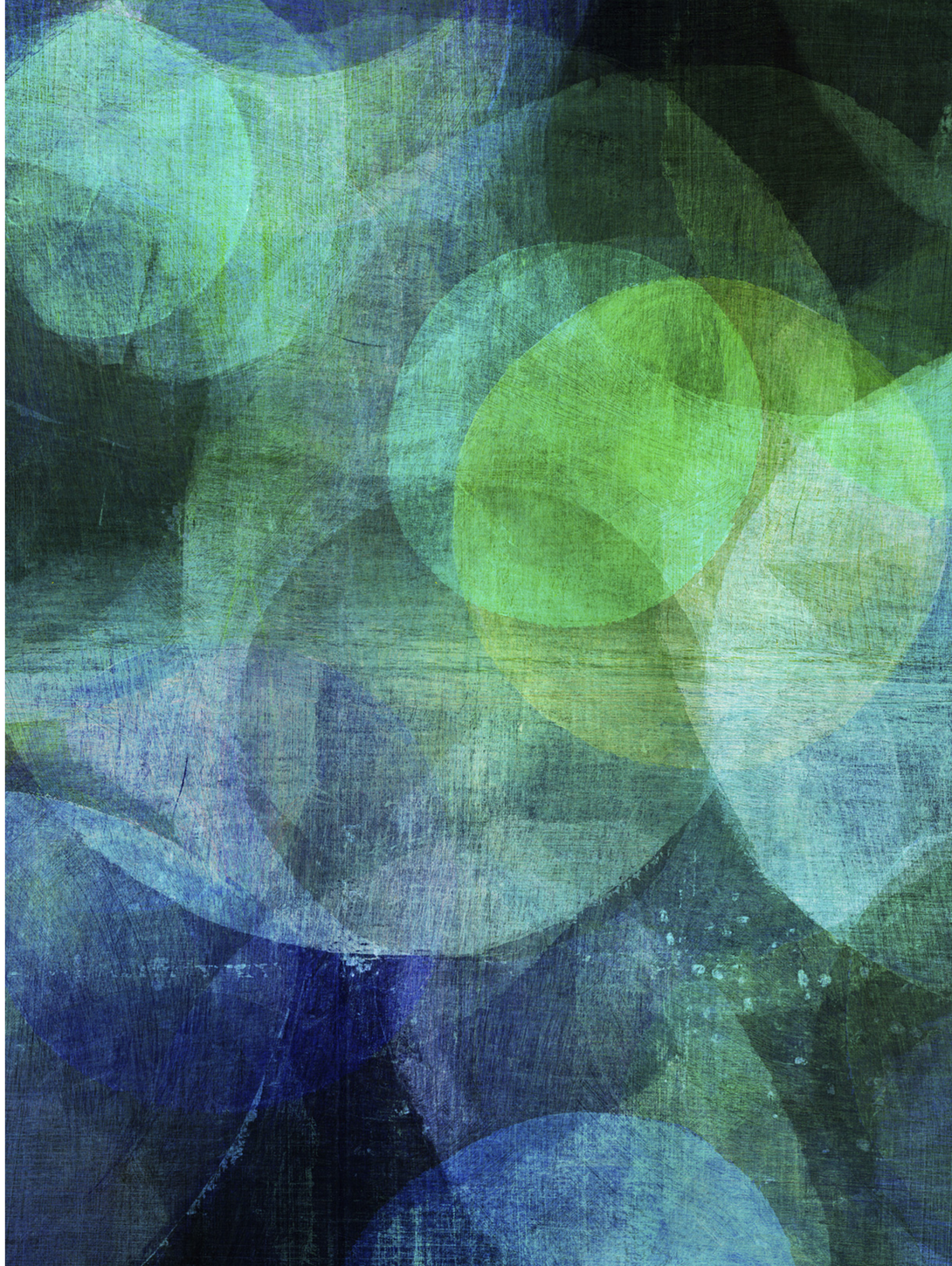


AGENDA



AGENDA

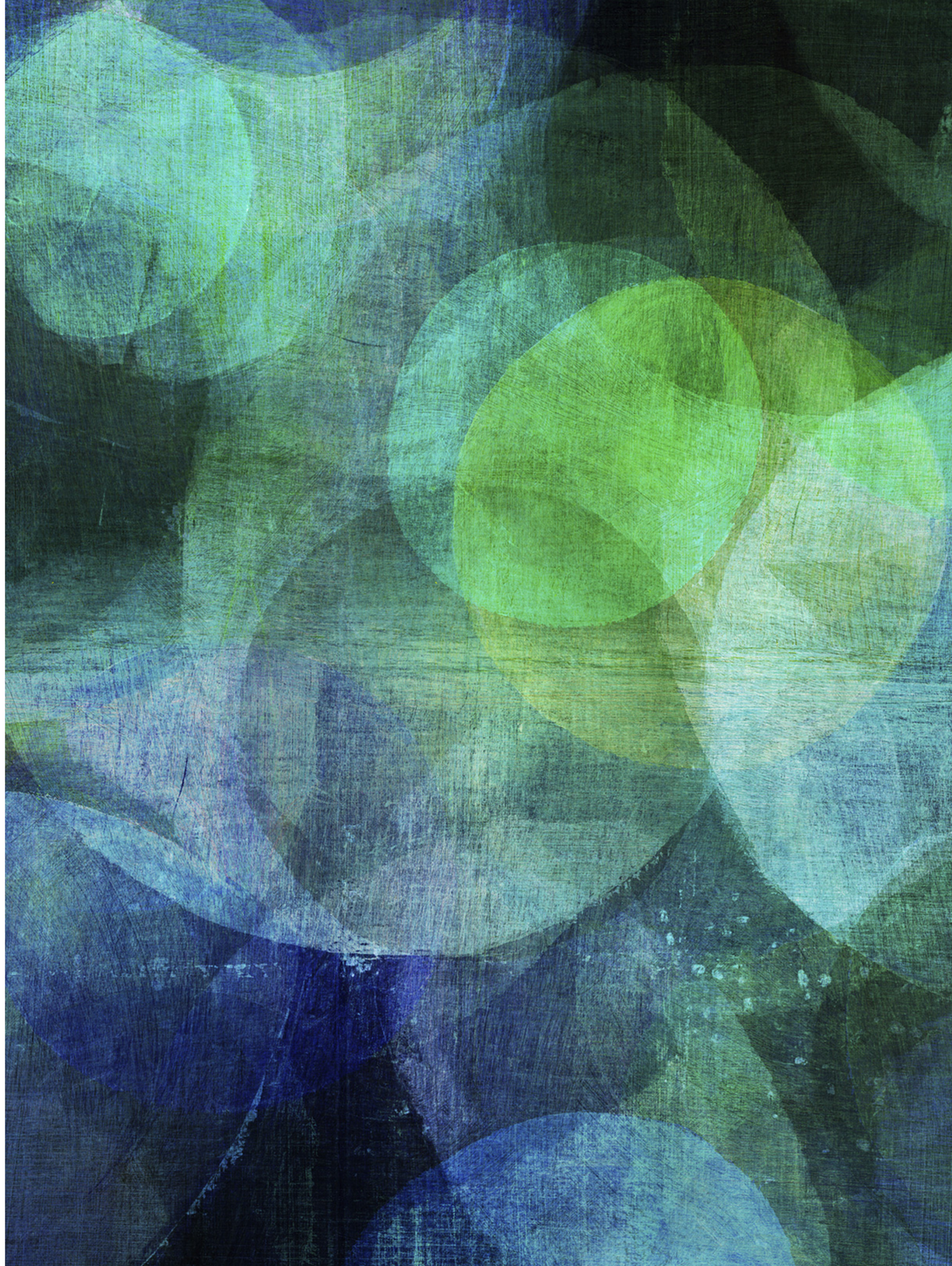
- Continuous Integration



AGENDA

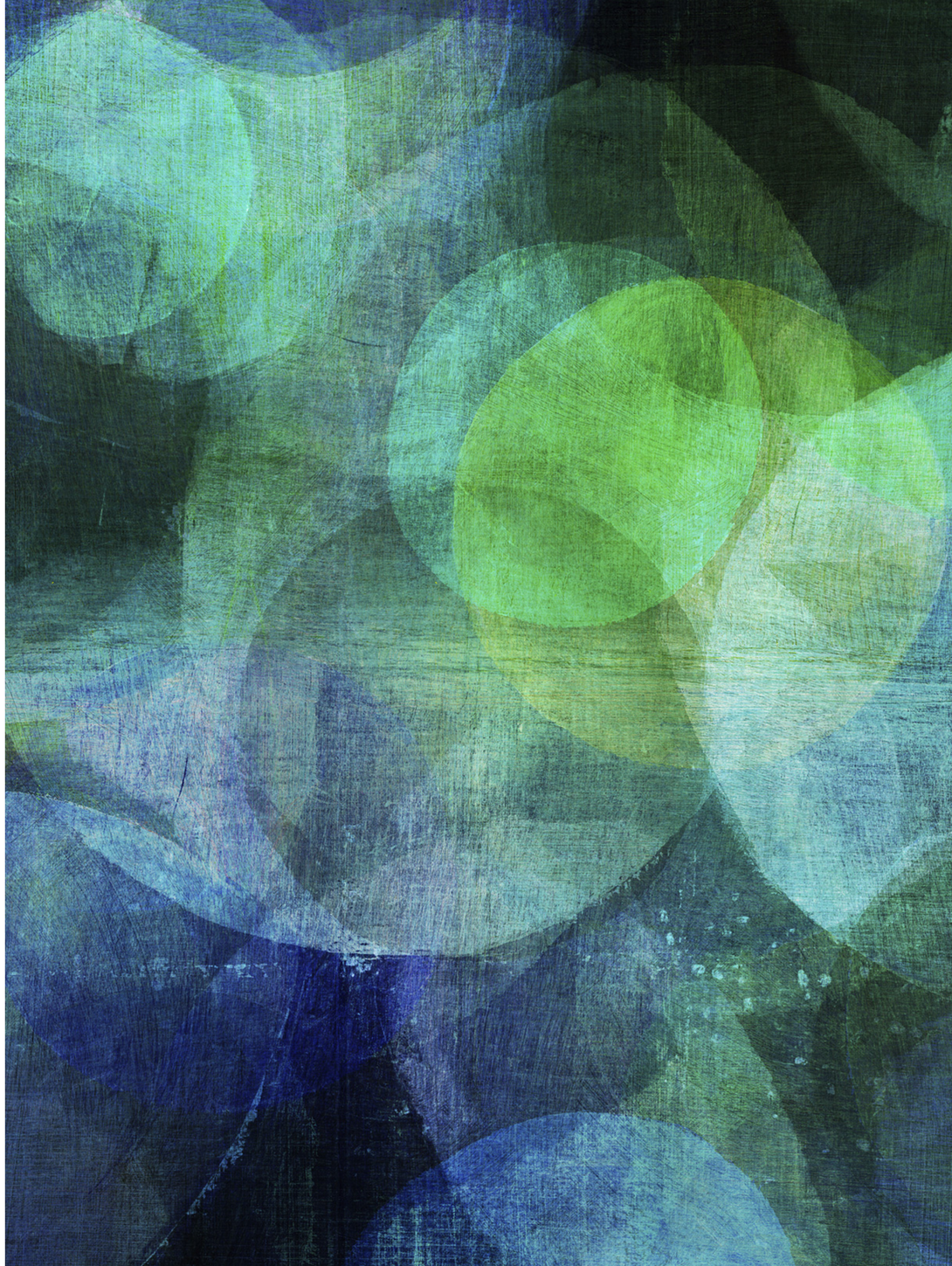
- Continuous Integration

- Build Pipeline



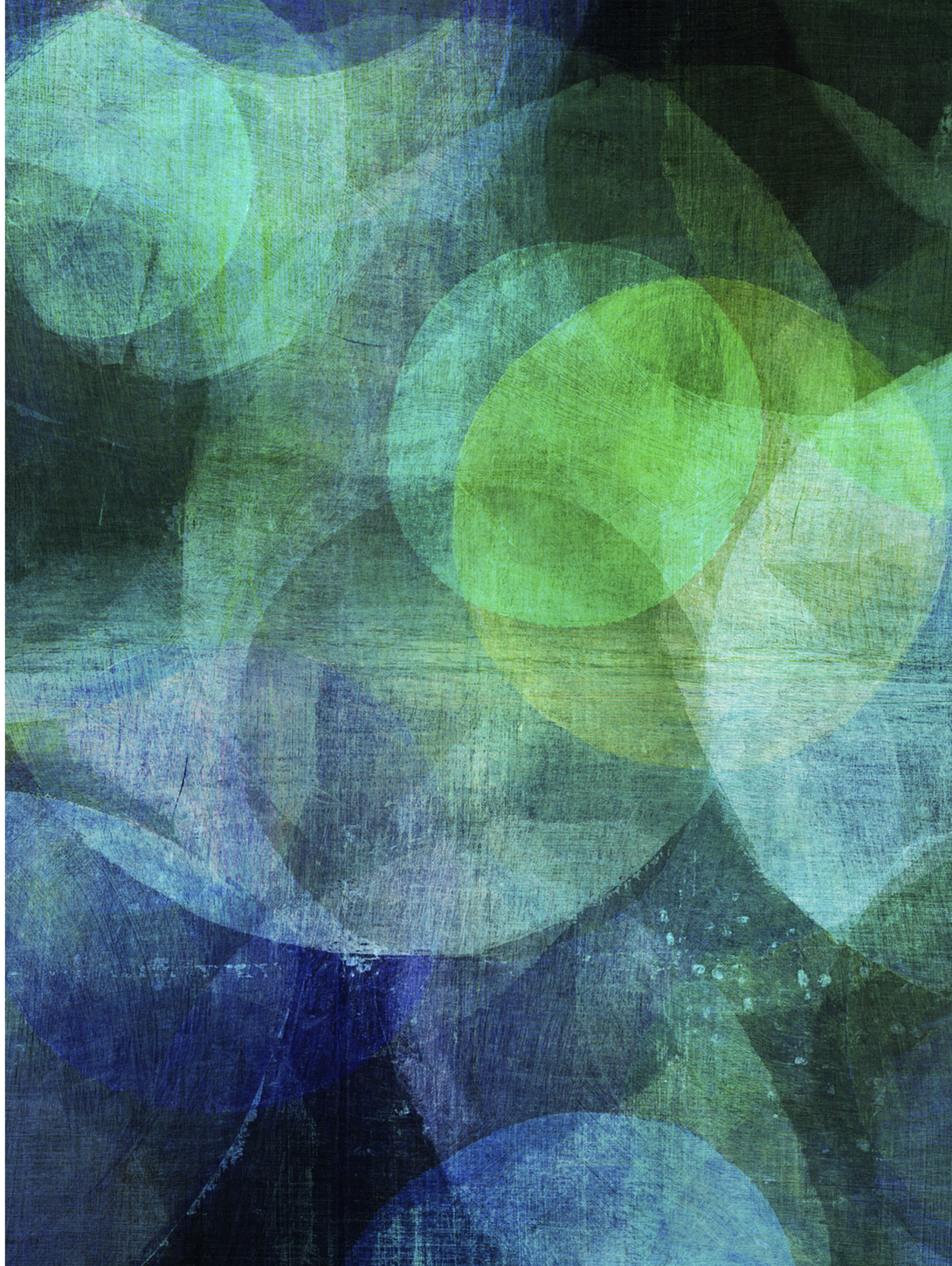
AGENDA

- Continuous Integration
- Build Pipeline
- Test Pipeline



AGENDA

- Continuous Integration
- Build Pipeline
- Test Pipeline
- Deploy application with docker



CONTINUOUS INTEGRATION

COMMON PROBLEM IN SOFTWARE DEVELOPMENT

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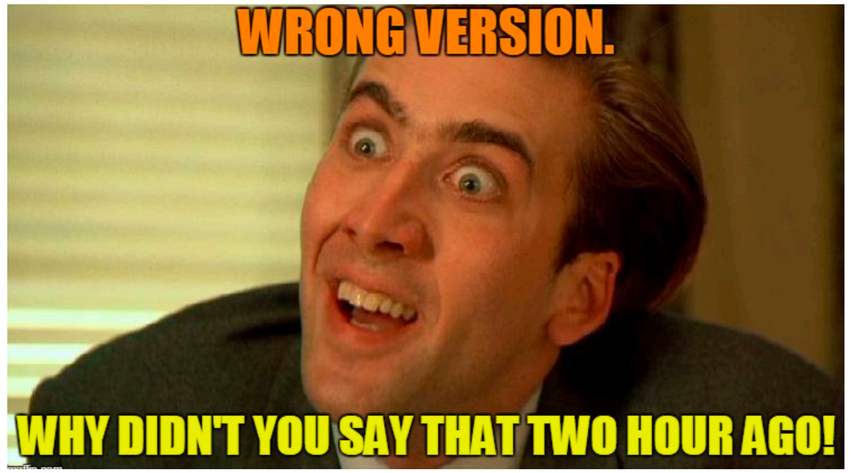
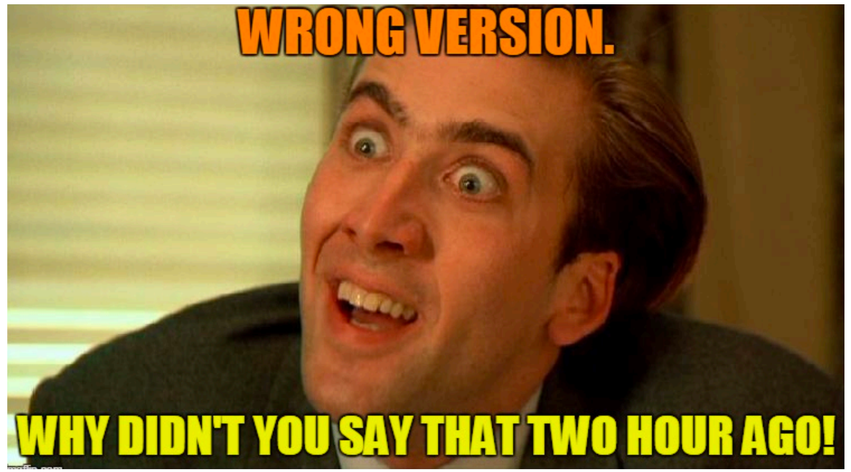
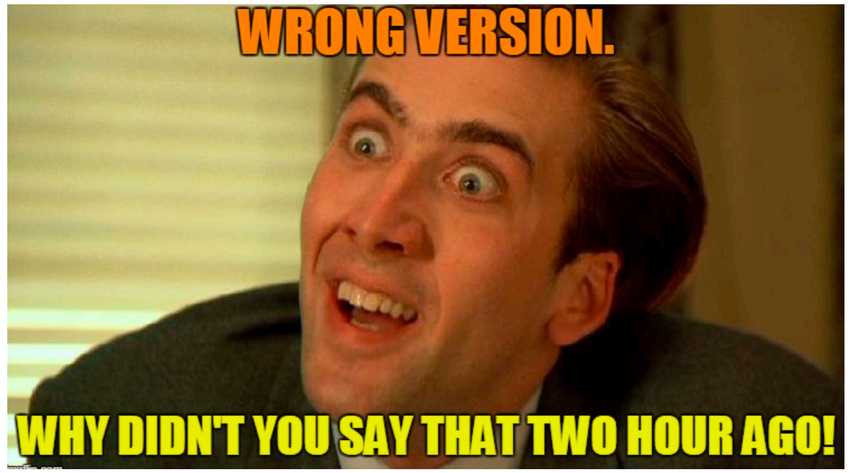
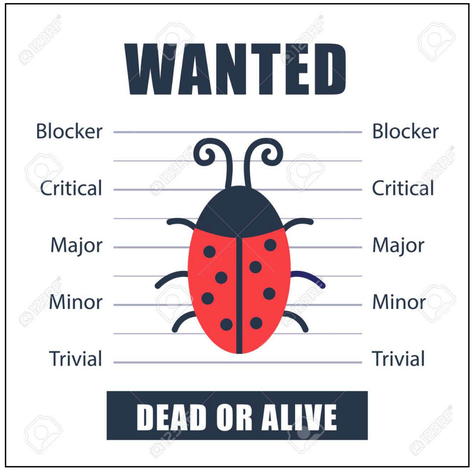


COMMON PROBLEM IN SOFTWARE DEVELOPMENT

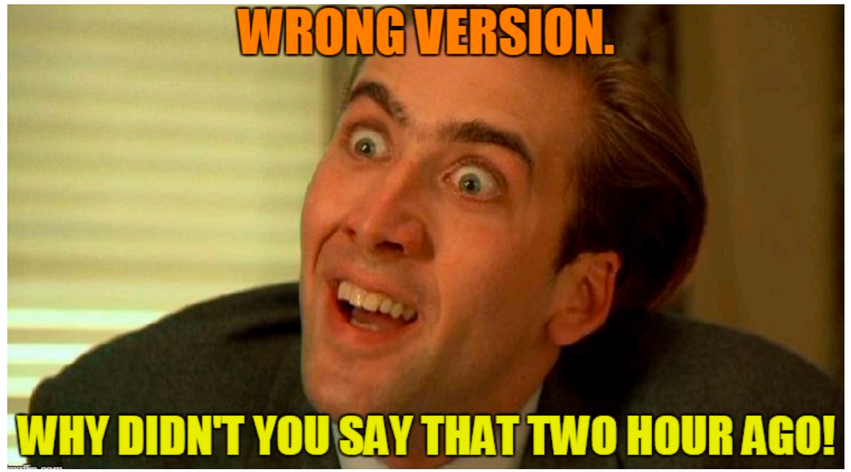


COMMON PROBLEM IN SOFTWARE DEVELOPMENT

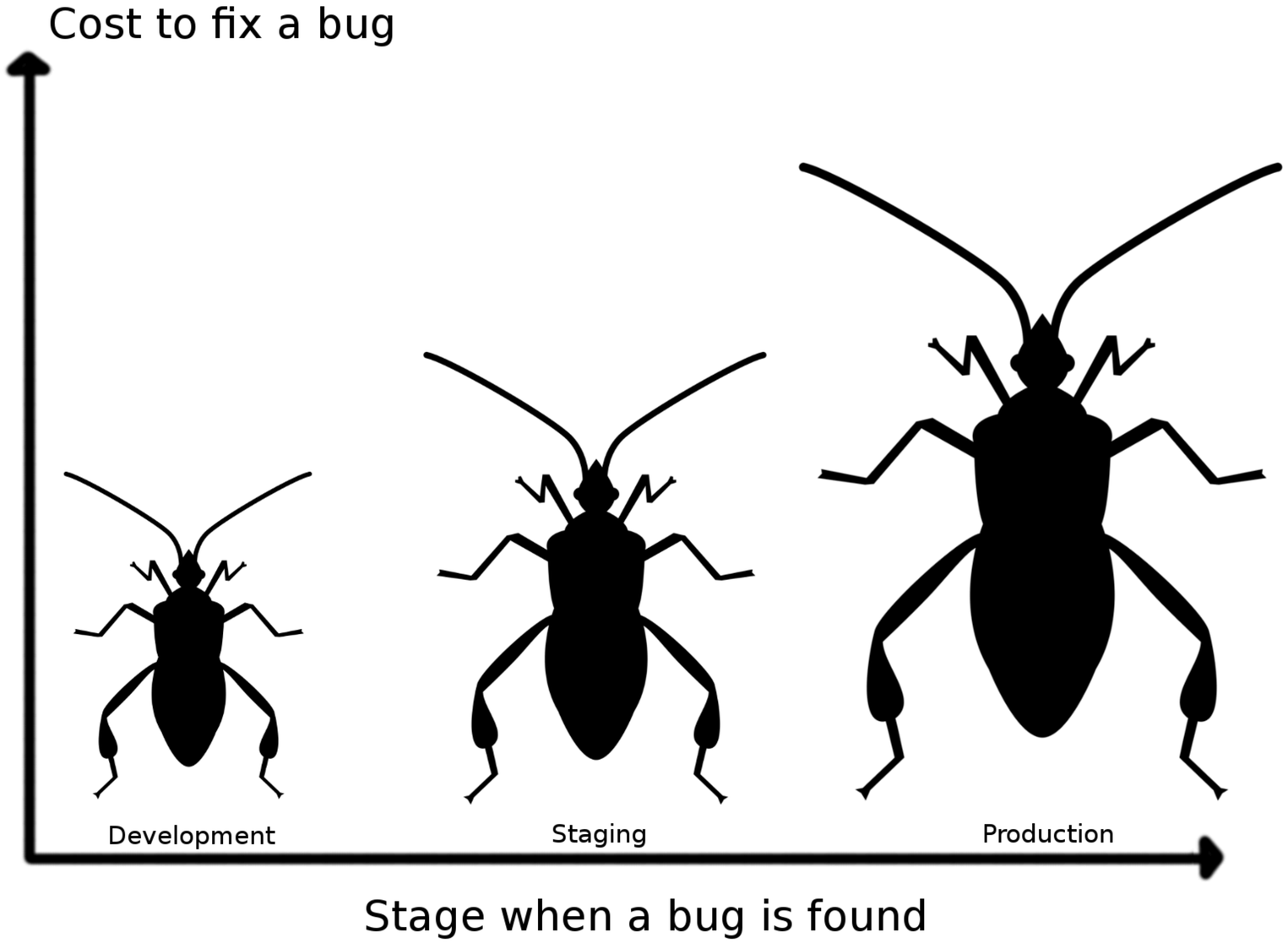




COMMON PROBLEM IN SOFTWARE DEVELOPMENT



COST OF INTEGRATION



KEY OF CONTINUOUS INTEGRATION

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Discipline to **integrate frequently**

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Strive to make **small change**

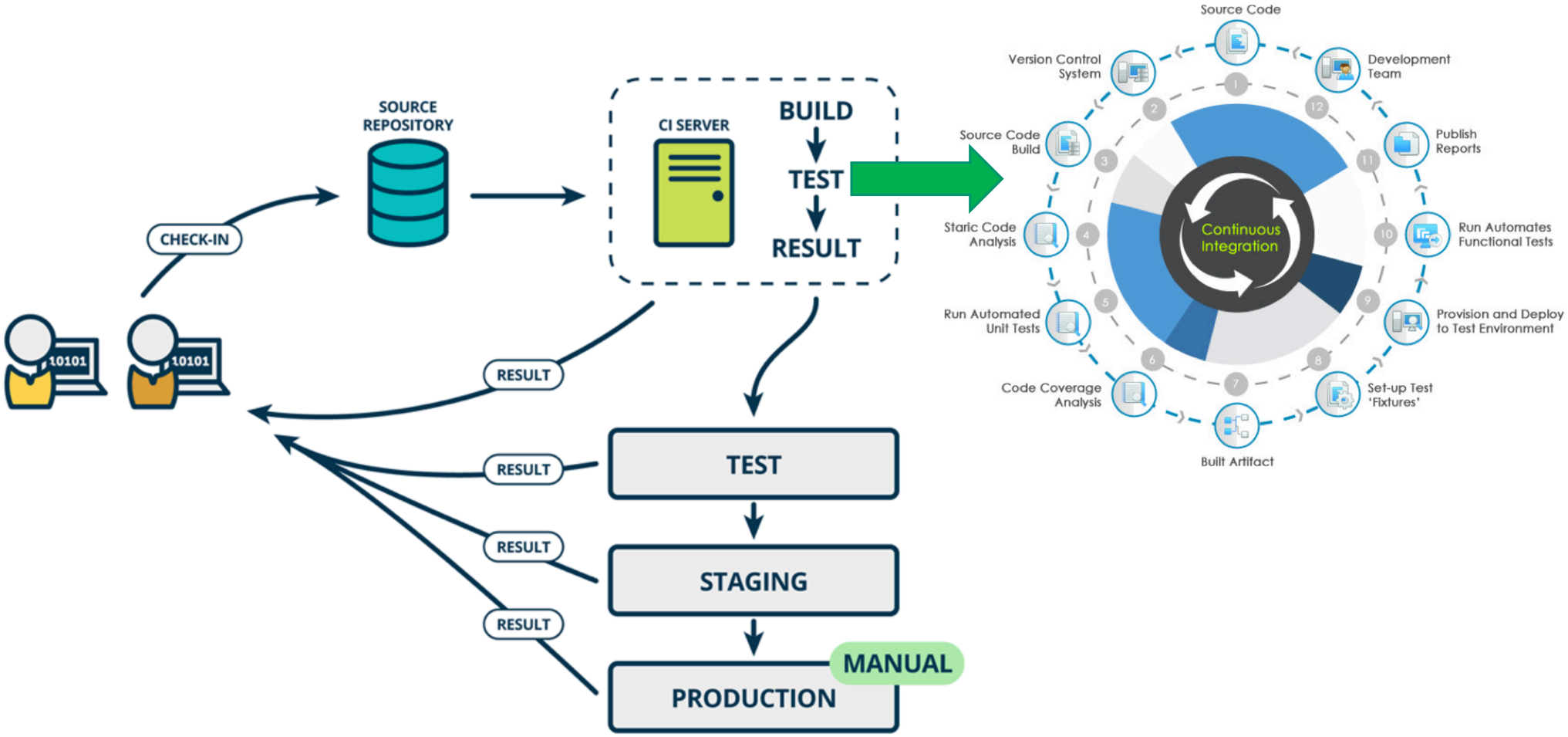
KEY OF CONTINUOUS INTEGRATION

Discipline to **integrate frequently**

Strive to make **small change**

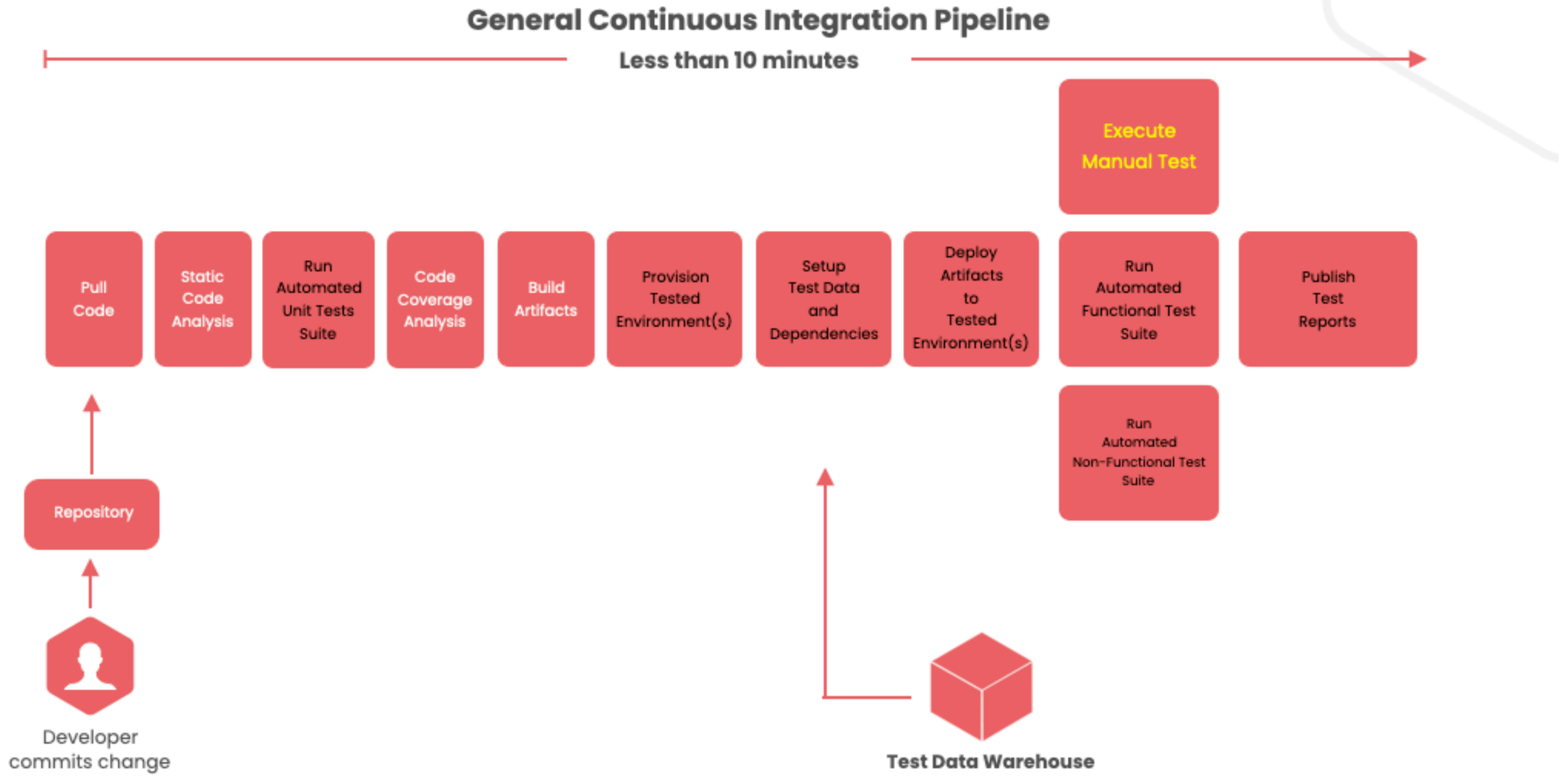
Strive for **fast feedback**

CONTINUOUS INTEGRATION AND CONTINUOUS DELIVERY



DEVELOPMENT CYCLE

THE CONTINUOUS INTEGRATION



VISUALISING YOUR PIPELINE – INCLUDING THE MANUAL STAGES

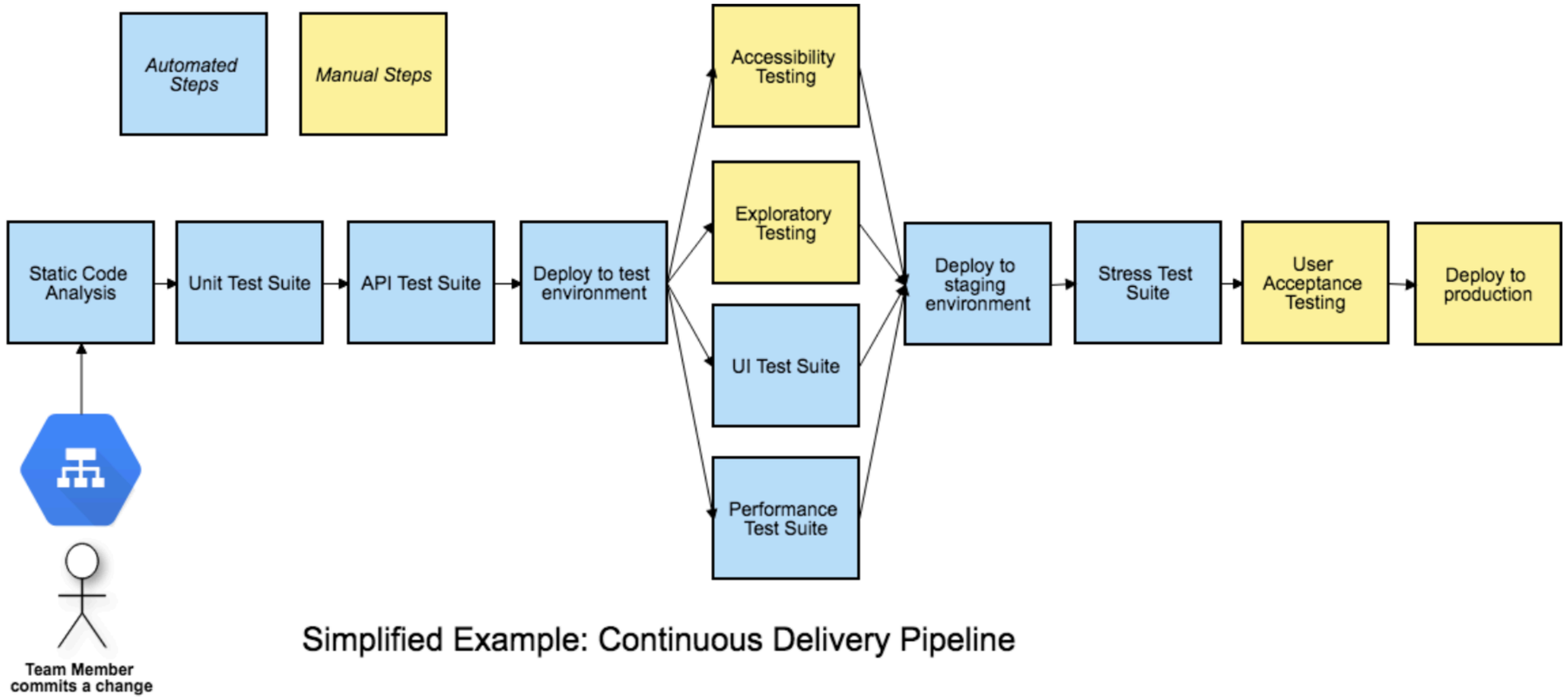


Figure 1: A Continuous Delivery Pipeline (my diagrams are inspired by Katrina Clokie's pipeline diagrams in "A Practical Guide to Testing in DevOps")

VISUALISING YOUR PIPELINE – INCLUDING THE MANUAL STAGES

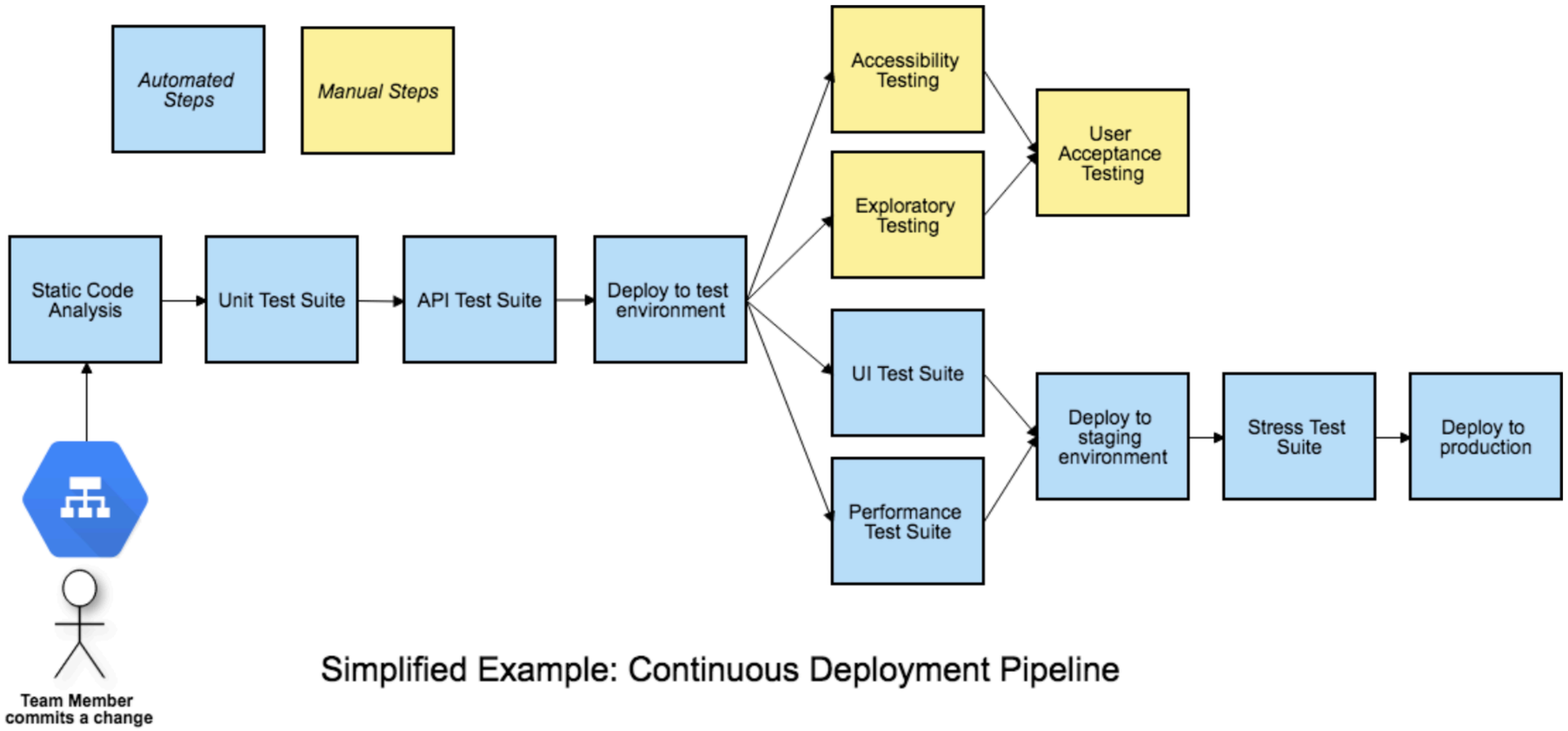
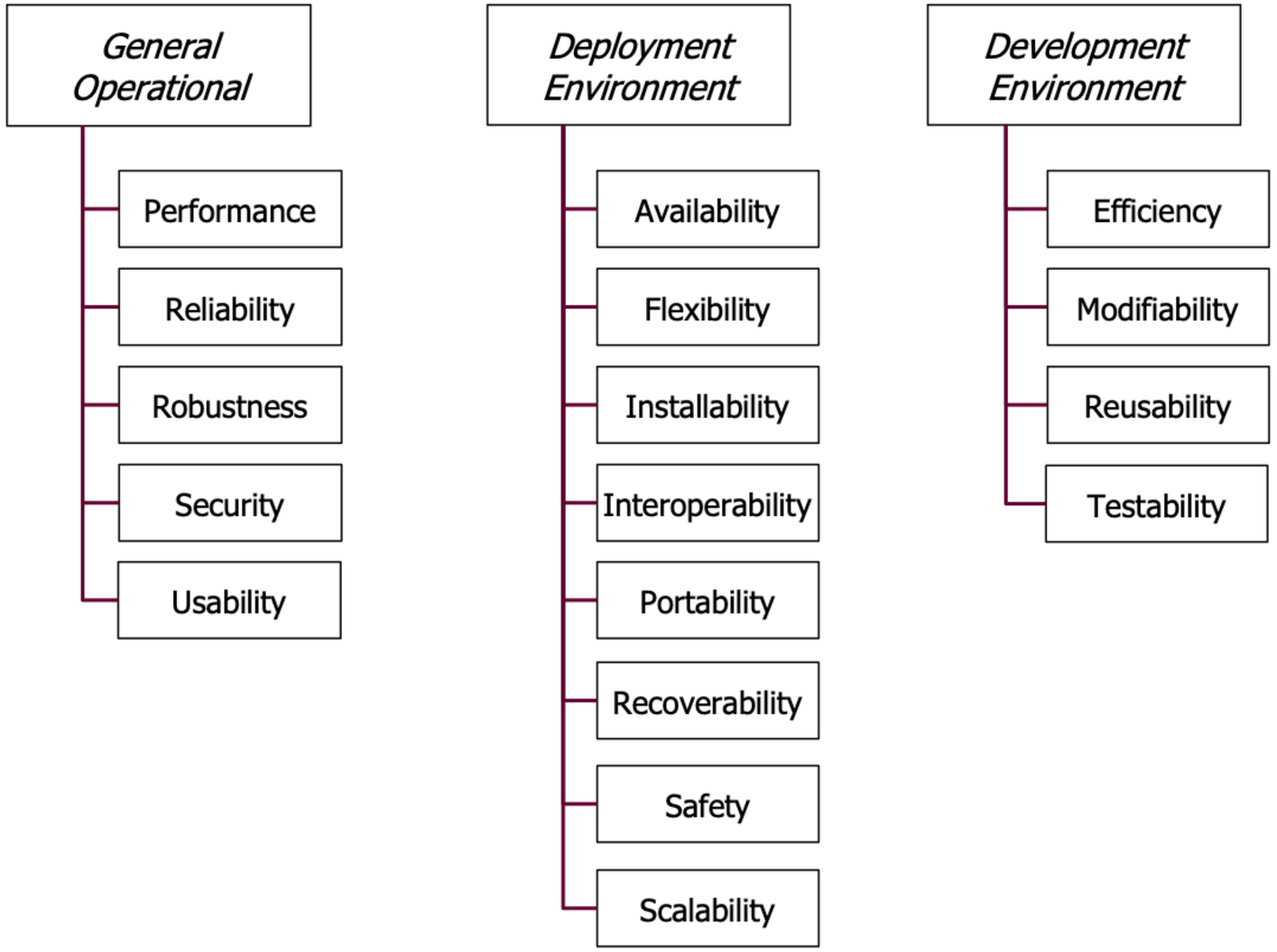


Figure 2: Asynchronous stages in a deployment pipeline

SOFTWARE QUALITY ATTRIBUTES



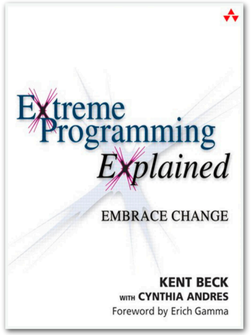
Original Source: The Whole Team Approach to Agile Testing by Janet Gregory and Lisa Crispin

EXTREME PROGRAMMING

Ten-Minute Build

Automatically build the whole system and run all of the tests in ten minutes. A build that takes longer than ten minutes will be used much less often, missing the opportunity for feedback. A shorter build doesn't give you time to drink your coffee.

The ten-minute build is an ideal. What do you do on your way to that ideal? The statement of the practice gives three clues: *automatically* build the *whole* system and run *all* of the tests in ten minutes. If your process isn't automated, that's the first place to start. Then you may be able to build only the part of the system you have changed. Finally, you may be able to run only tests covering the part of the system at risk because of the changes you made.



DEVELOPMENT WORKFLOW WITH DOCKER

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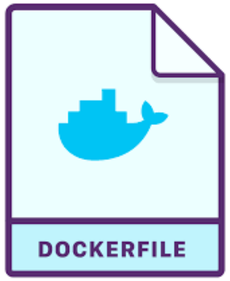

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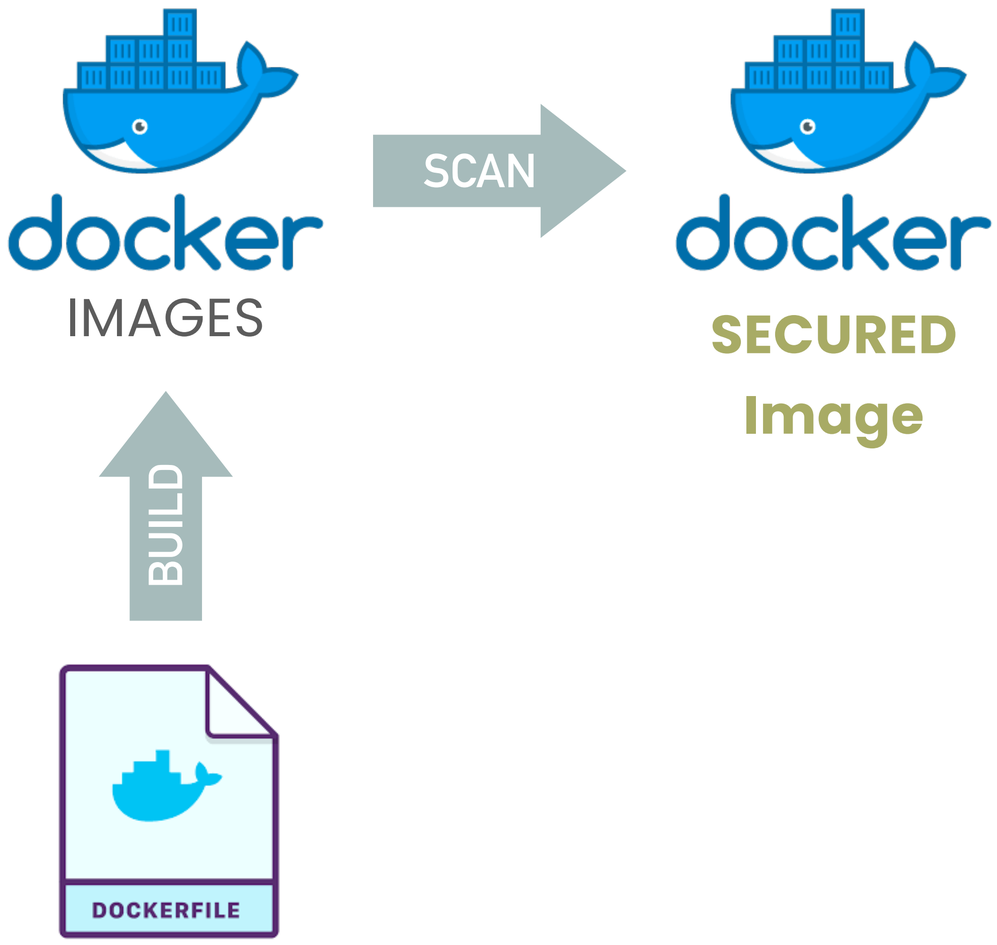

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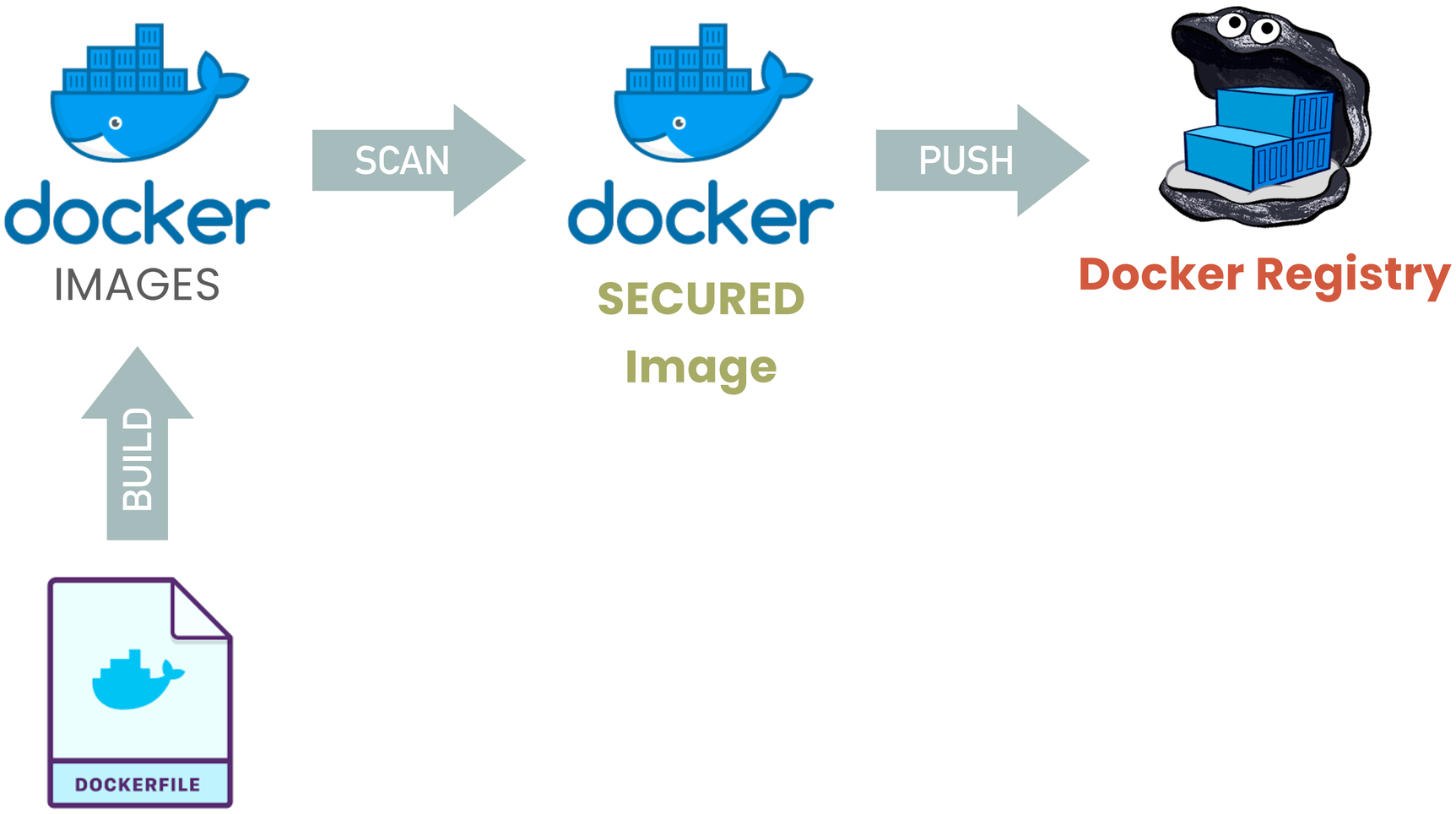
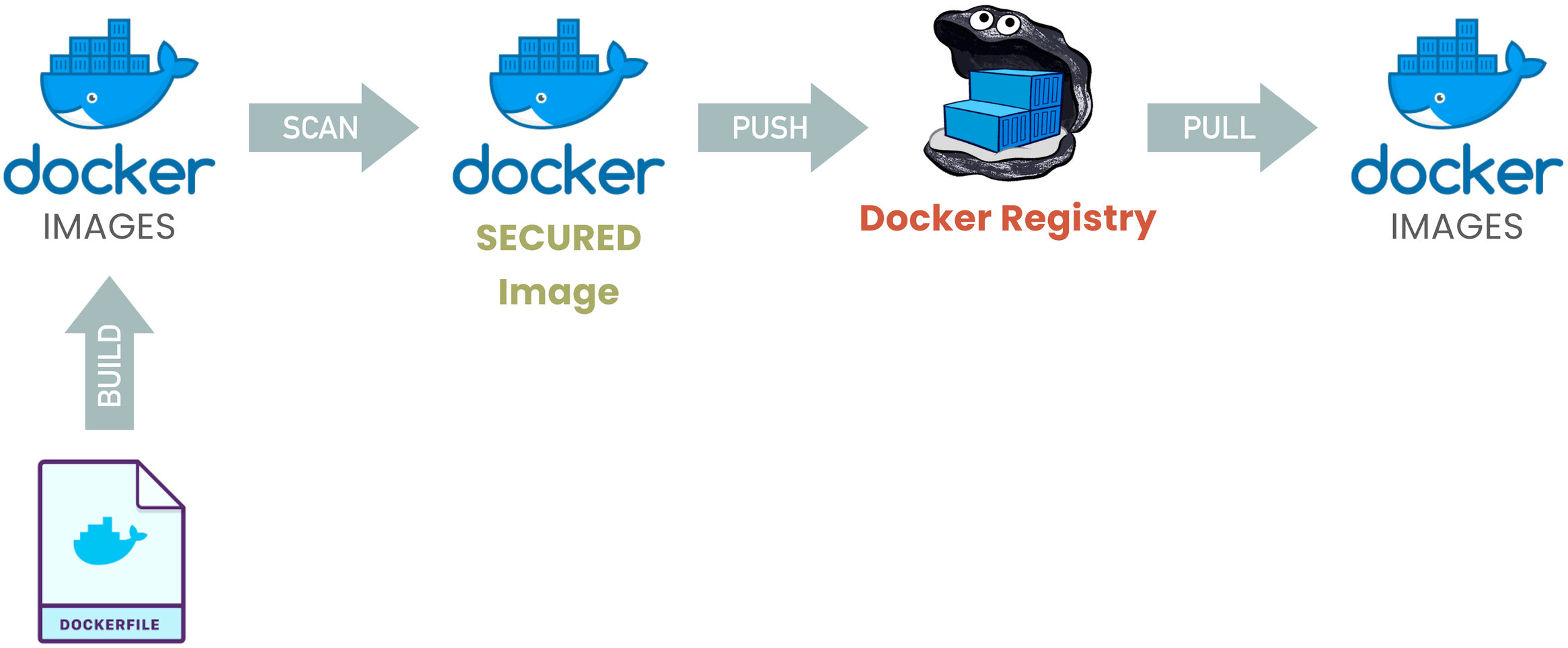


DEVELOPMENT WORKFLOW WITH DOCKER



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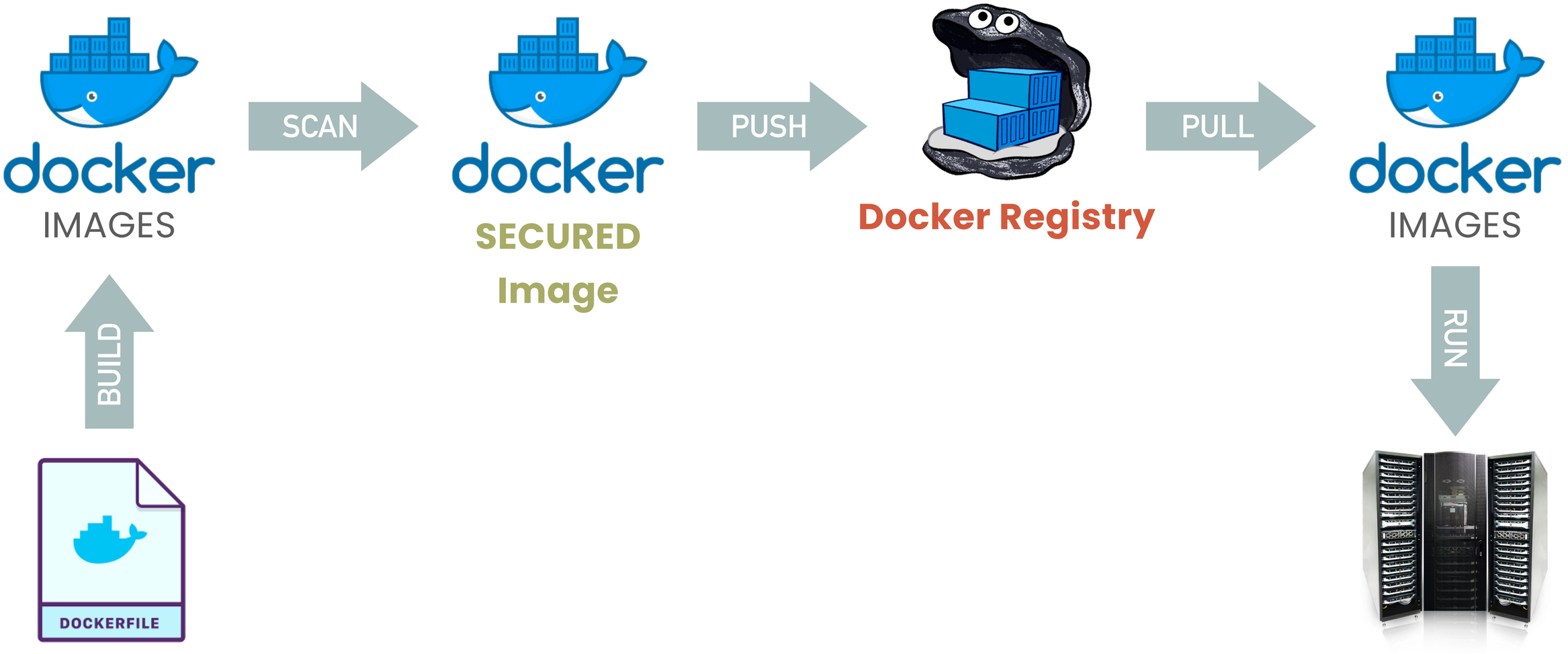

BUILD PIPELINE

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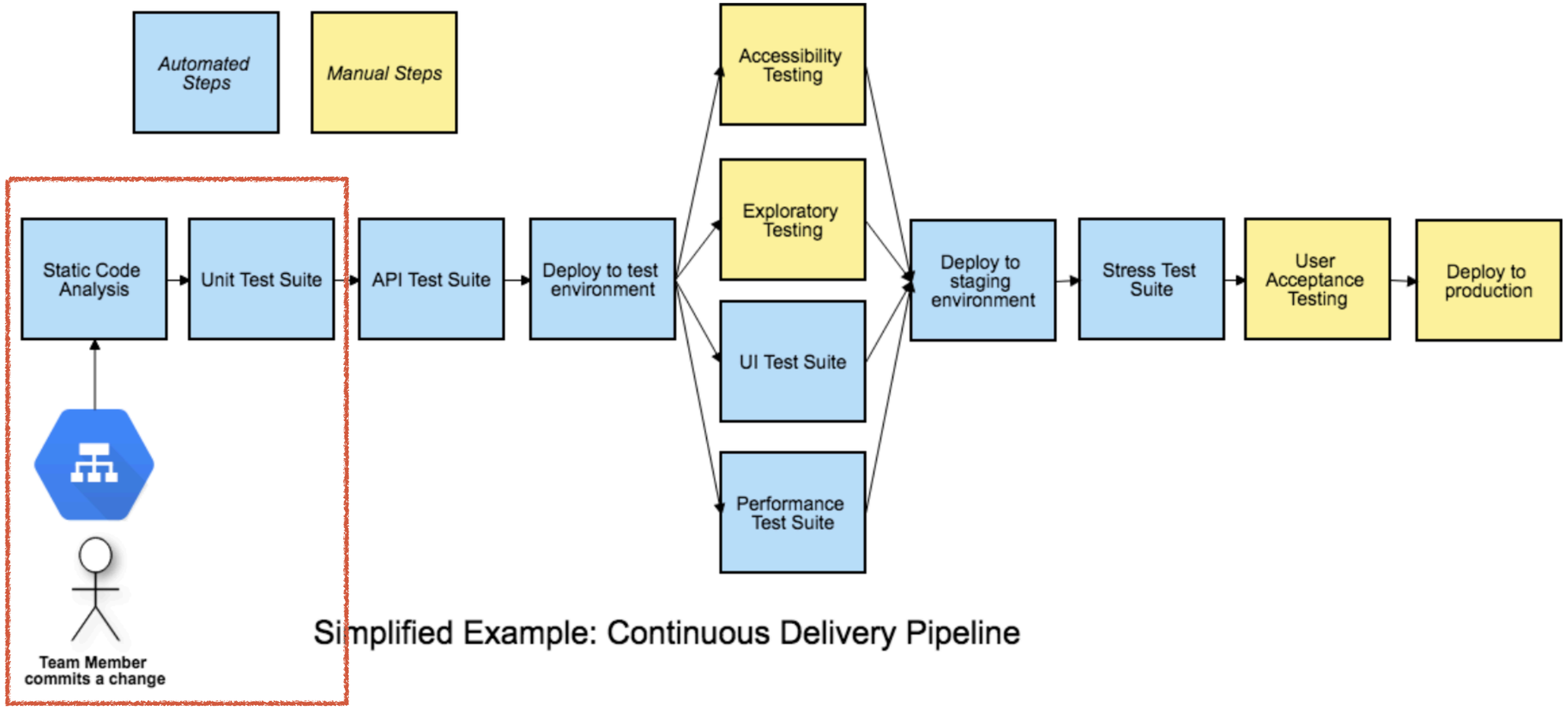

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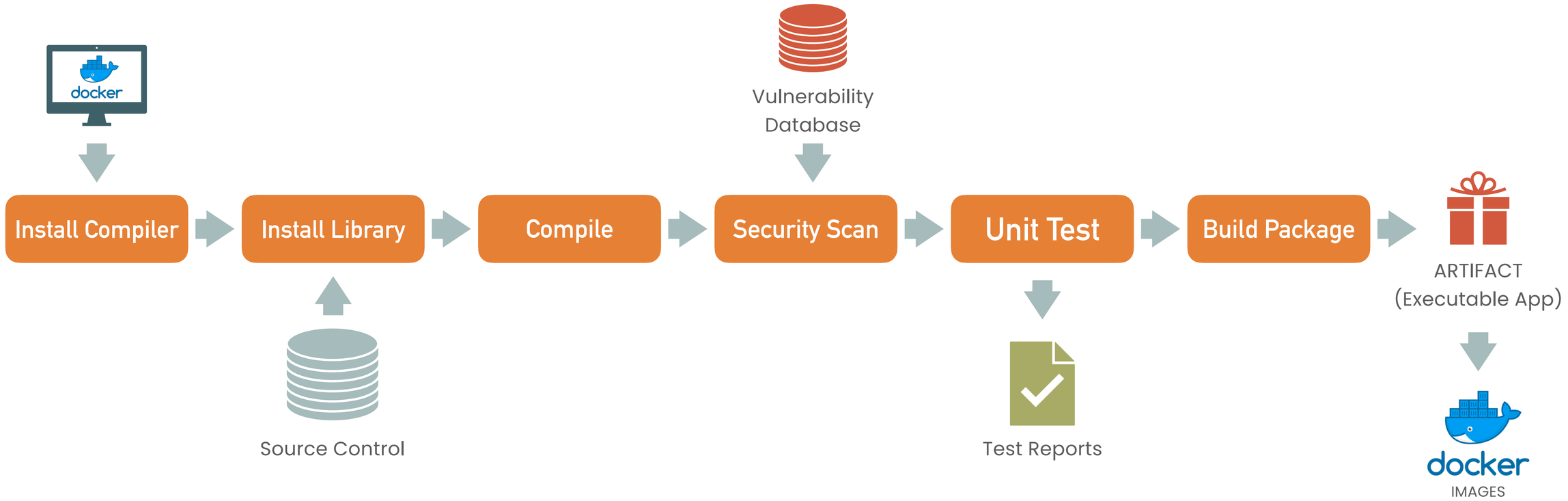
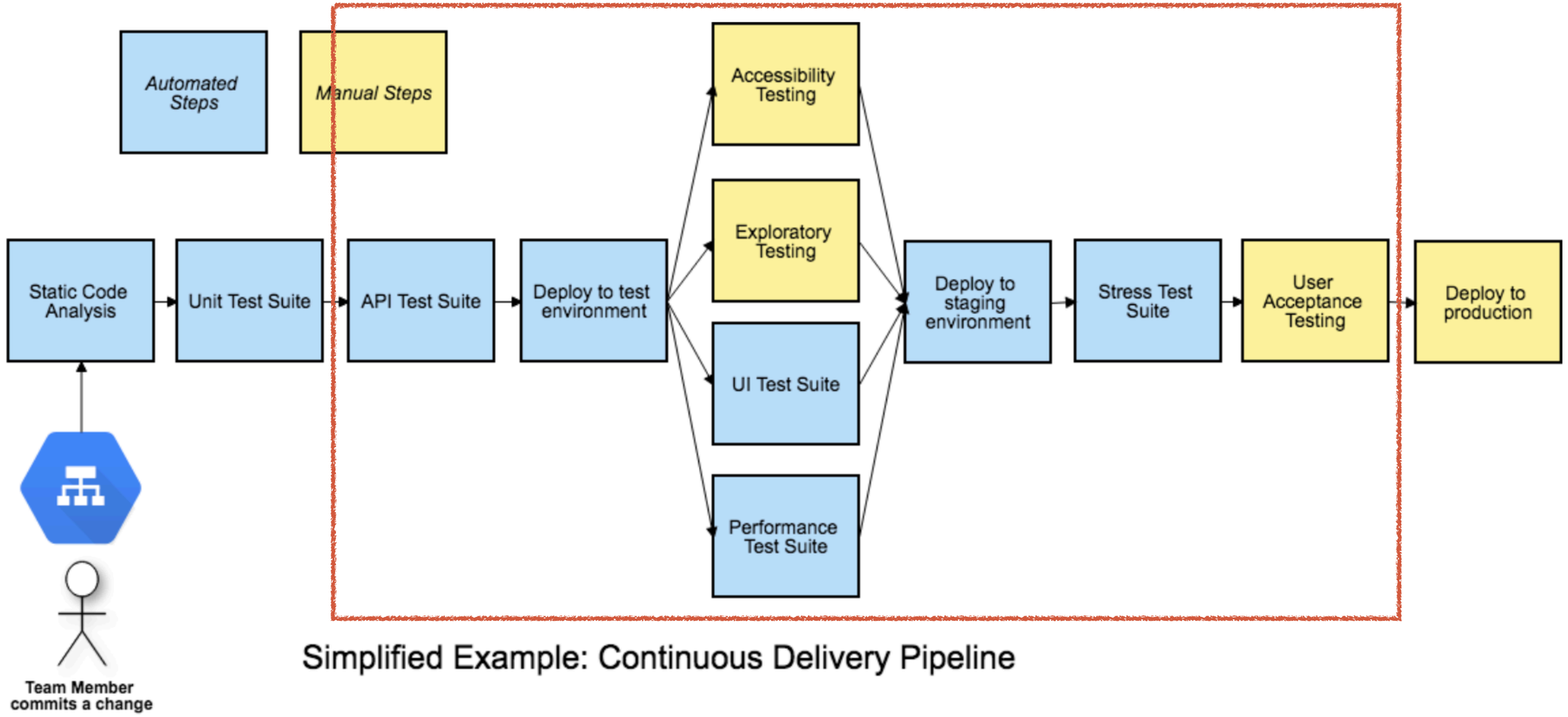
CHALLENGING ABOUT BUILDING DOCKER IMAGE



TEST PIPELINE

TEST PIPELINE



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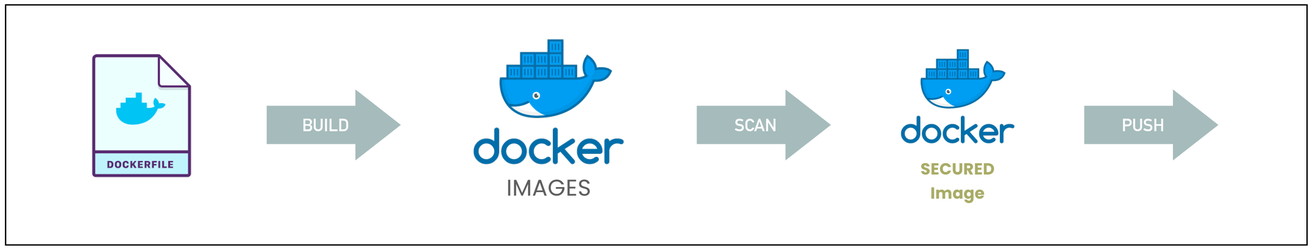
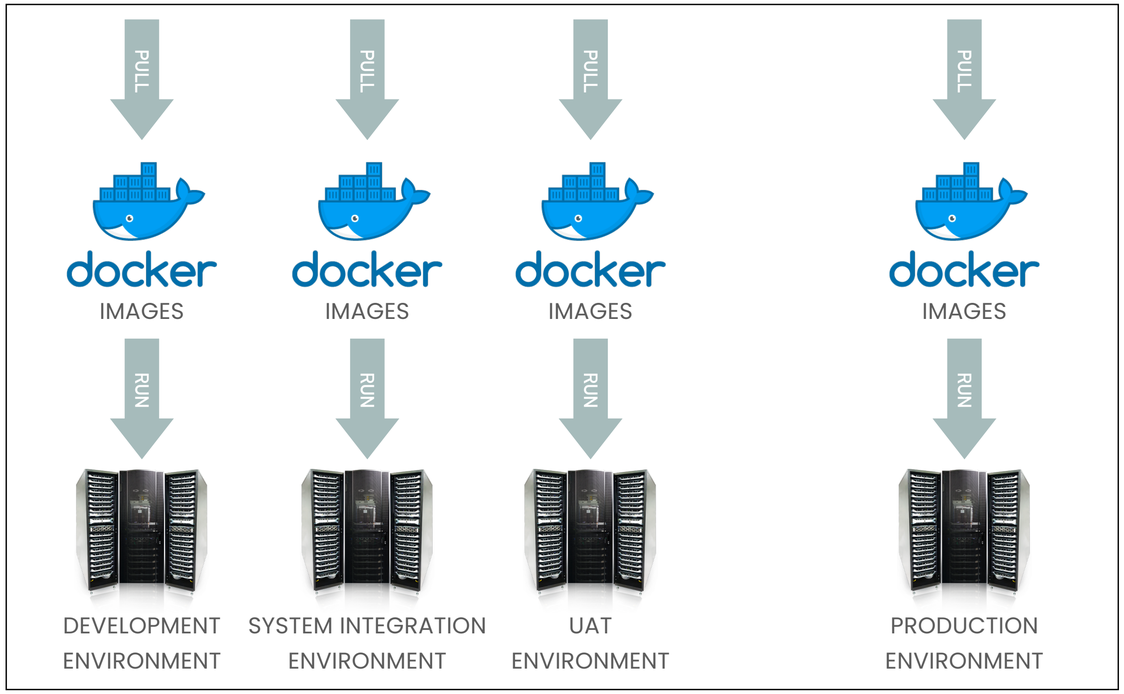
DEVELOPMENT APPLICATION WITH DOCKER

BUILD Pipeline



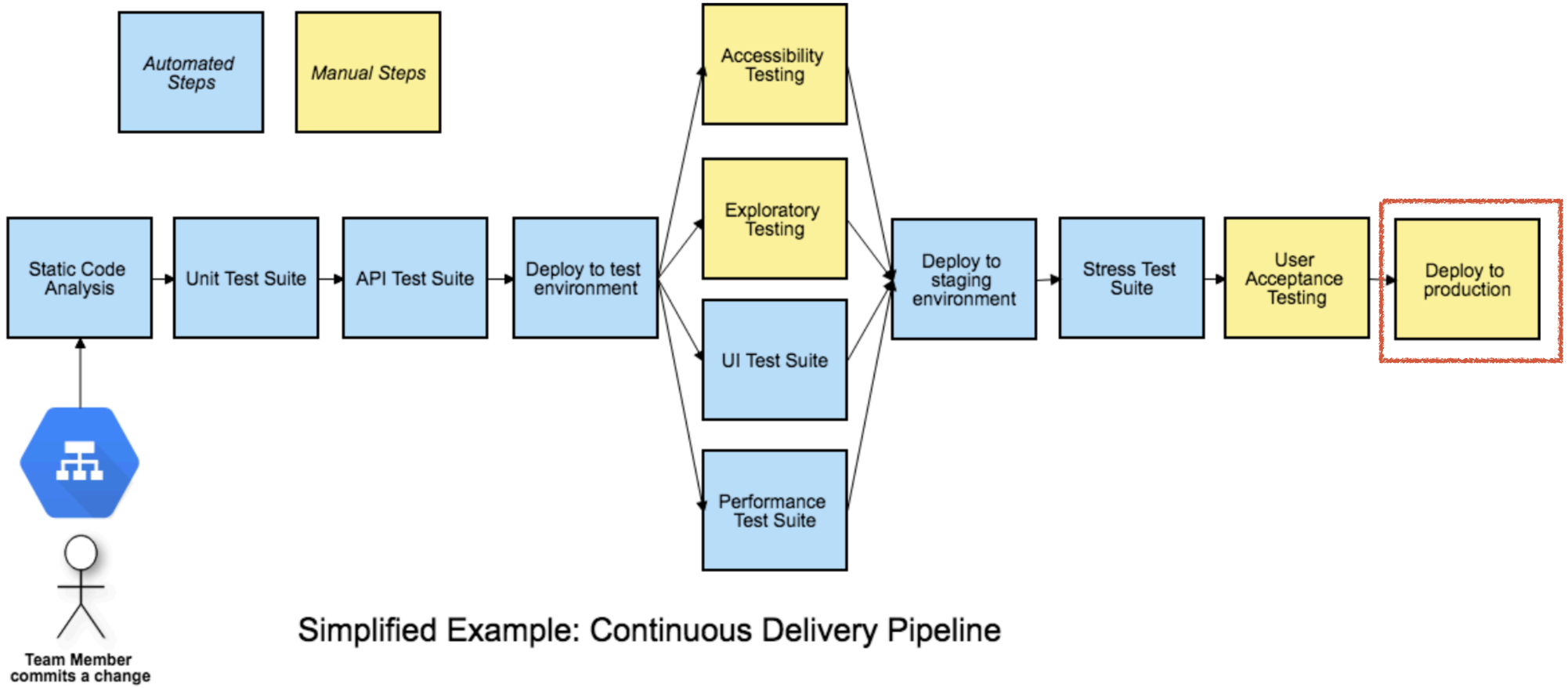
Docker Registry

DEPLOY + TEST Pipeline



DEPLOYMENT PIPELINE

DEPLOYMENT PIPELINE



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THANK YOU