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QA Automation evolution.
The new **SEiT** role breaks borders and limitations.

Serhii Romaniuk

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- 6+ years of professional experience in IT industry specializing in Quality Assurance;
- Thorough experience in manual and automated testing and setup of Quality Assurance processes;
- Current areas of professional interest:
  - Quality Assurance
  - Project Management
  - Team Leadership

- Company: DataArt Poland

Projects parameters and QA setup

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Factors that affect QA setup, efficiency and cost of quality:

- Project size and pace
- Team size and level of maturity
- Technological complexity
- Etc. etc.

Extensive QA team setup

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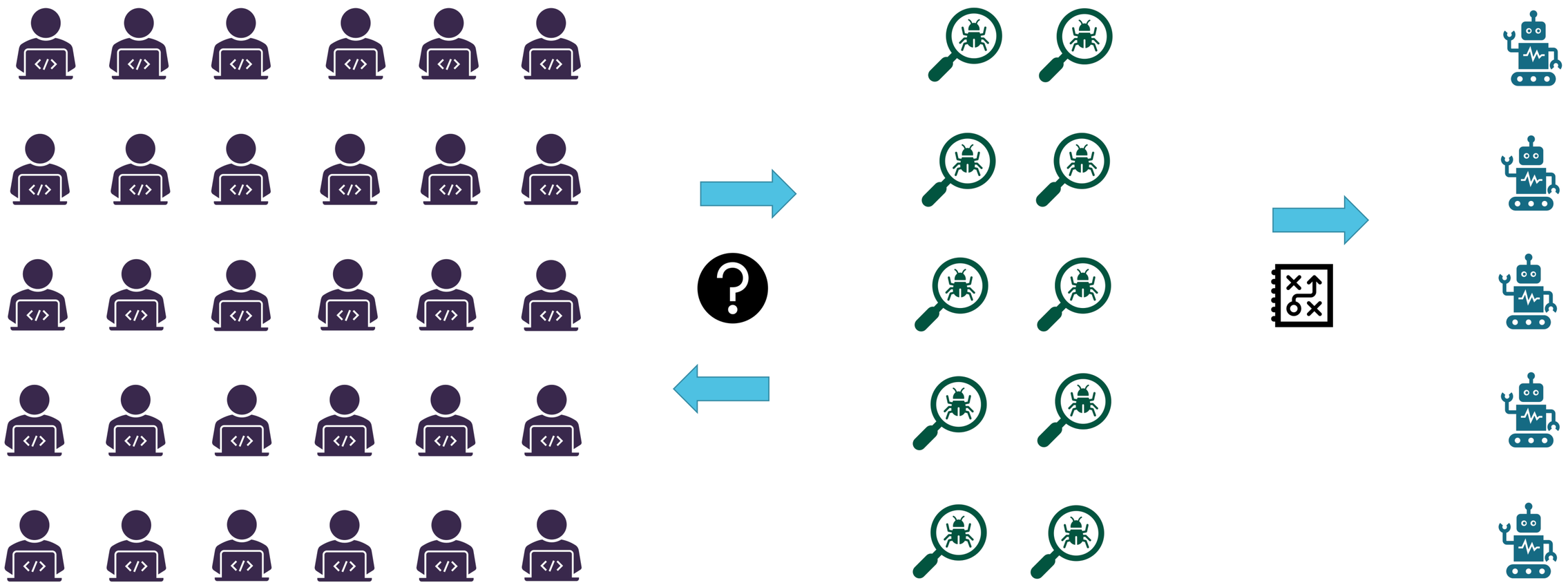

Economy QA team setup

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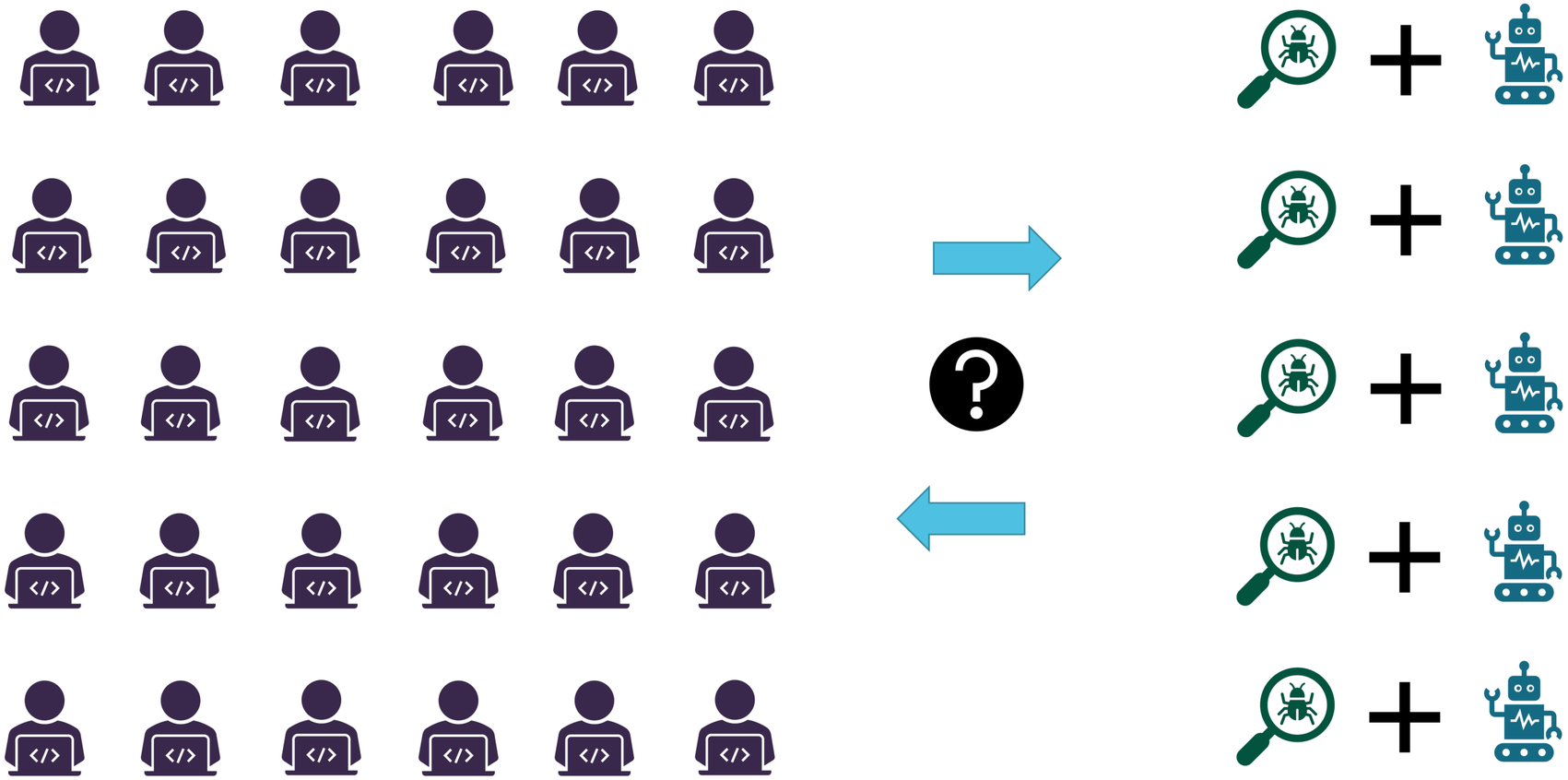

Switch from Black-box to White-box testing

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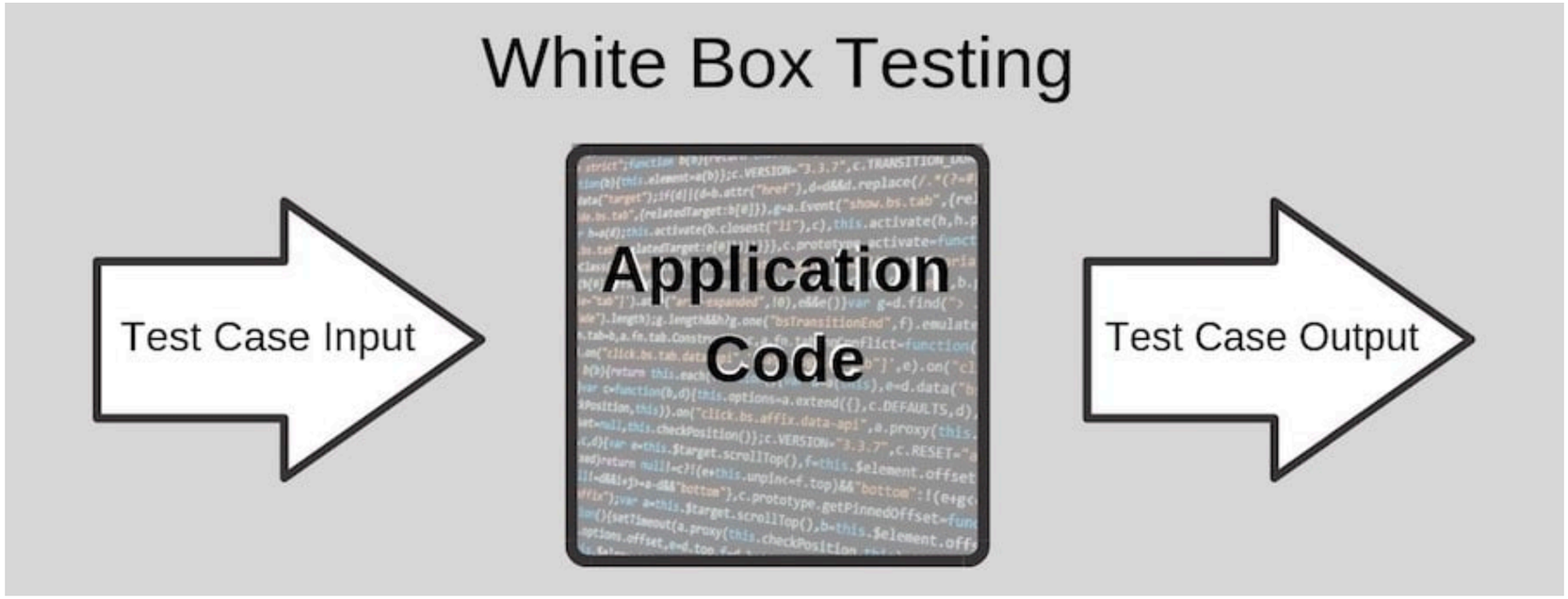

Team with SEiT

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Software Engineer in Testing
coordinates all QA activities

Key principles and concepts

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1. Software Engineer in testing instead of Manual testers/QA automation engineers
2. ”T-Shaped” developer
3. Shift-left testing approach
4. Three Amigos
5. Testing Pyramid
6. Definition of done

Software Engineer in testing

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Role description:

As a Software Engineer in Test, you have the opportunity to accelerate the delivery and to improve the quality of product. You will be responsible for designing and implementing development and test infrastructure. You will be a part of an Engineering team, which means that you may participate in all discussions and decisions. Your focus is organisation of the testing process on all stages of development, developing code of the testing framework and tools rather than finding bugs. Your job is to accelerate product development by helping developers help themselves.

SEiT activities in SDLC

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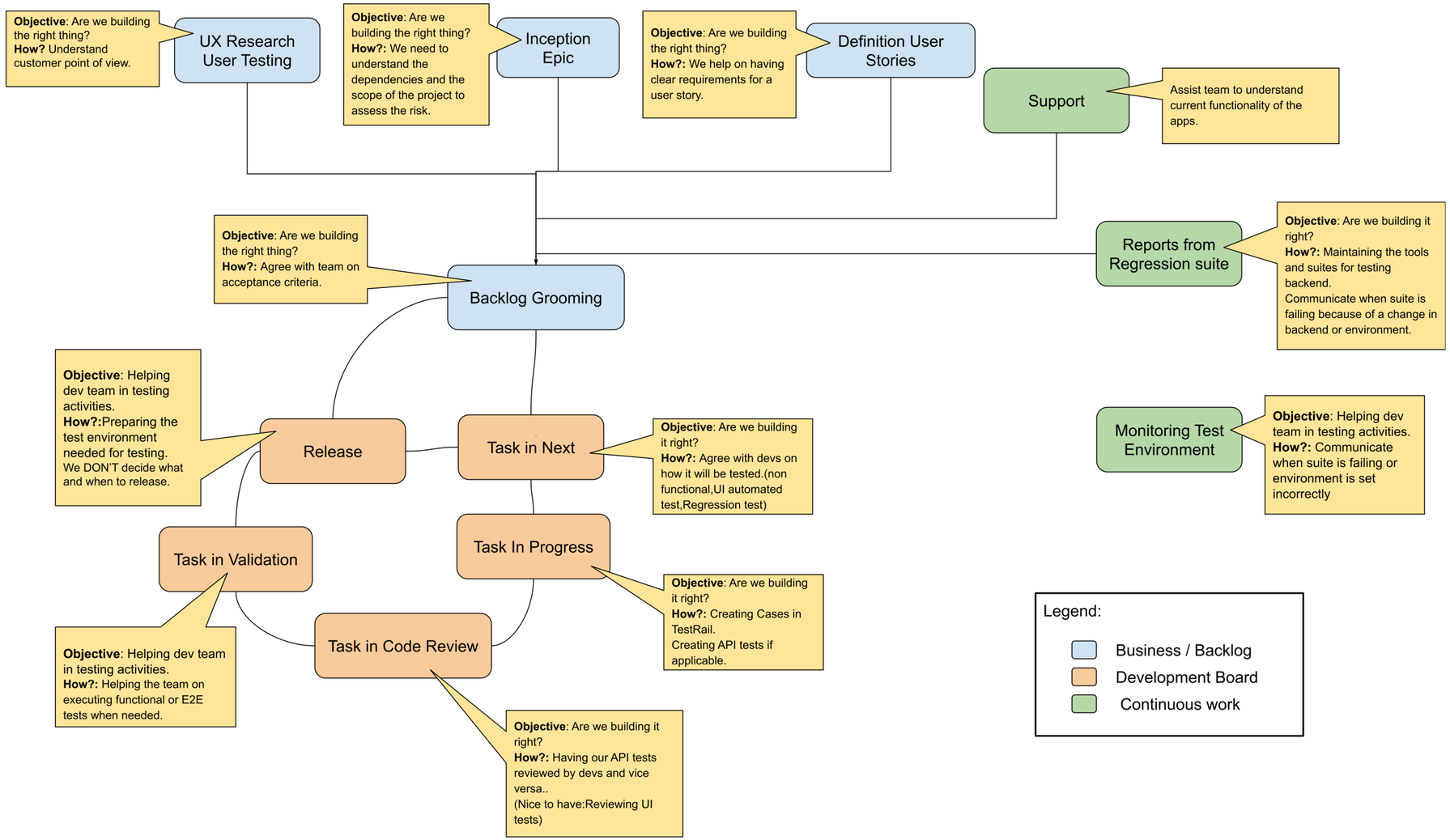

T-Shaped developer

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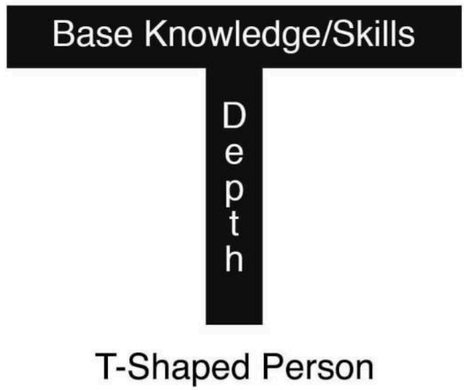

T-Shaped Person

ANALYST	PROGRAMMER	TEST ENGINEER	WEB DESIGNER	SYSTEM ENGINEER
Write executable documents	Unit tests	Automated tests	UX design	DevOps
Requirements engineering	Production code	Functional testing	Image, icon, logo design	Python, Perl, Go, Shell
Write user manuals	System architecture	Test plan	JavaScript, HTML, CSS	System & OS
...	...	...	...	...

BROAD

DEEP

- Developers learned how to write documentation in the form of a test case, and how to learn about app. features from test cases.
- Developers write unit / Integration / E-E test for the piece of code they develop.

Shift-left testing approach

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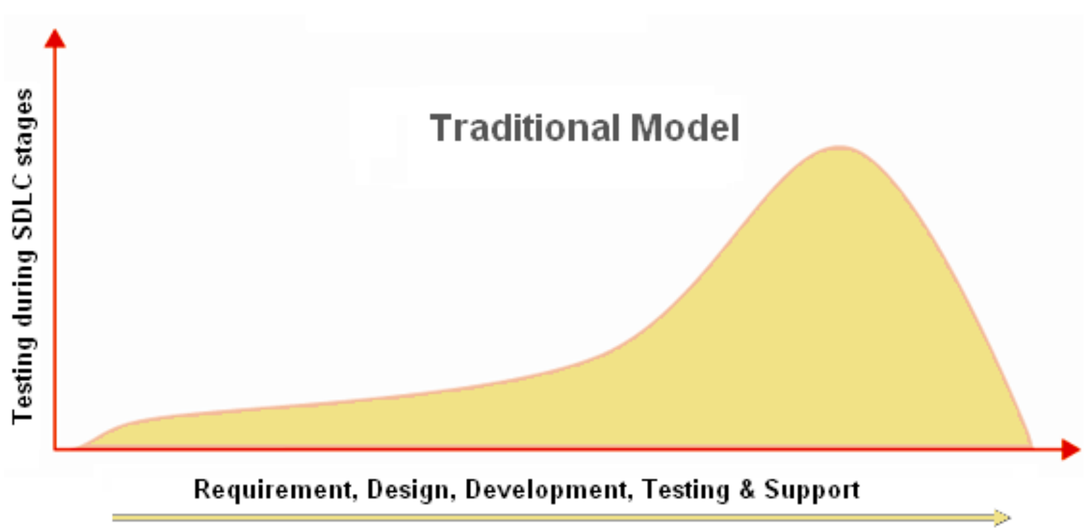

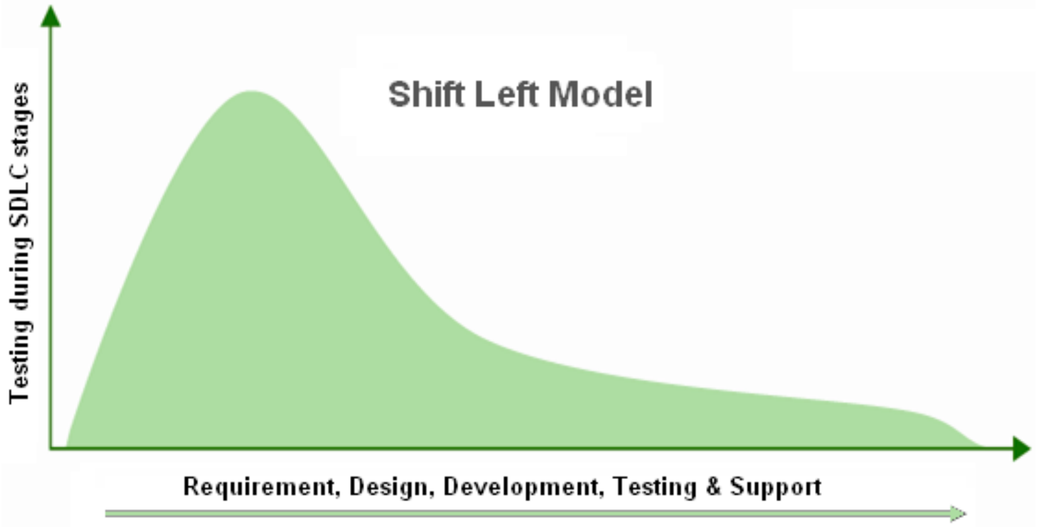

QA activities are performed on all stages of SDLC

Three amigos!

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Three amigos as a concept refers to the primary perspectives to examine an increment of work before, during, and after development. Those perspectives are:

Business – What problem are we trying to solve?

Development – How might we build a solution to solve that problem?

Testing – What about this, what could possibly happen?

Three amigos help to focus QA activities on the most valuable business areas. They decide how a new feature will be tested before it is even developed. That means building a TESTABLE application.

Testing pyramid

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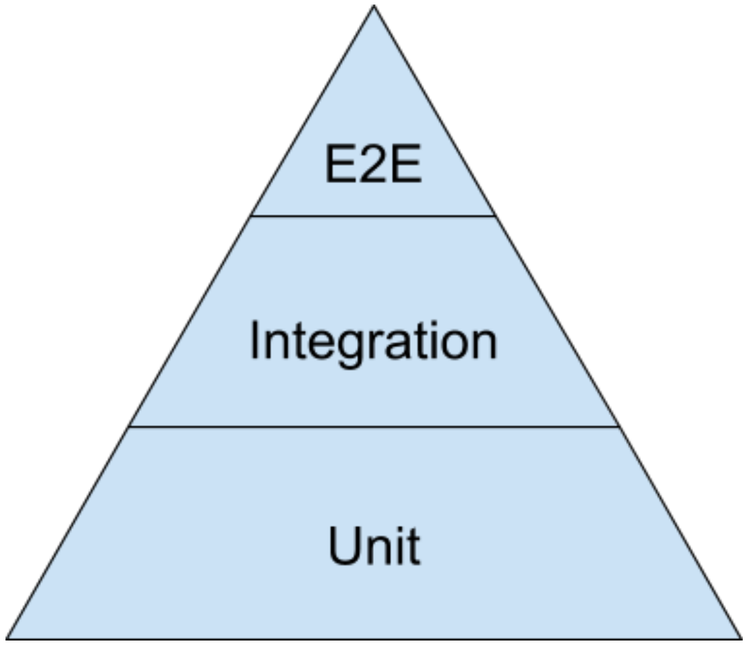

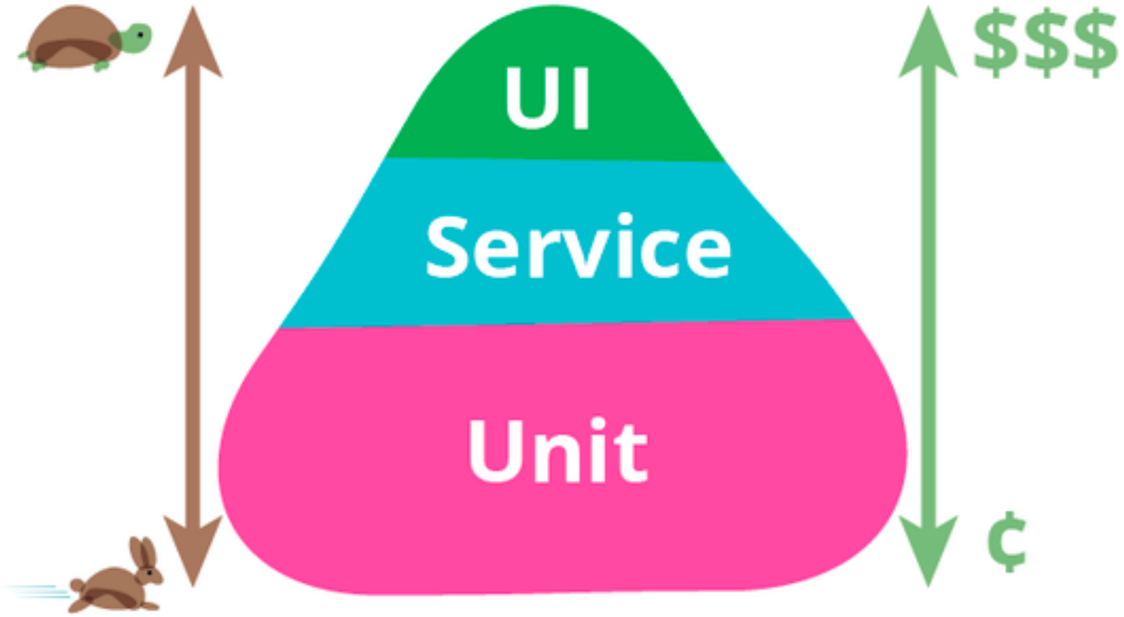

https://testing.googleblog.com/2015/04/just-say-no-to-more-end-to-end-tests.html

https://martinfowler.com/bliki/TestPyramid.html

Definition of done

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Feature DoD Examples:

- Acceptance criteria met
- Testing done:
  - Test cases(documentation) created
  - Feature level automated tests(unit/integration/e2e) created
  - Automated regression pass
- Non-Functional requirements met

Discussion

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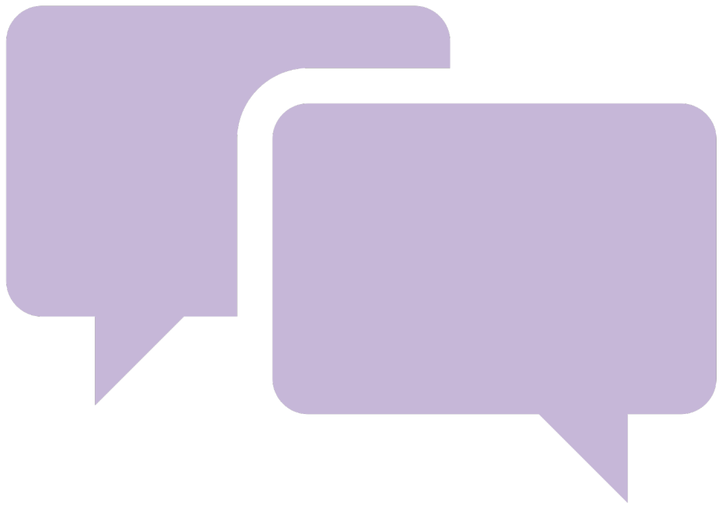

Which part of my presentation do you most disagree with, and why?