

Test Automation: from zero to hero



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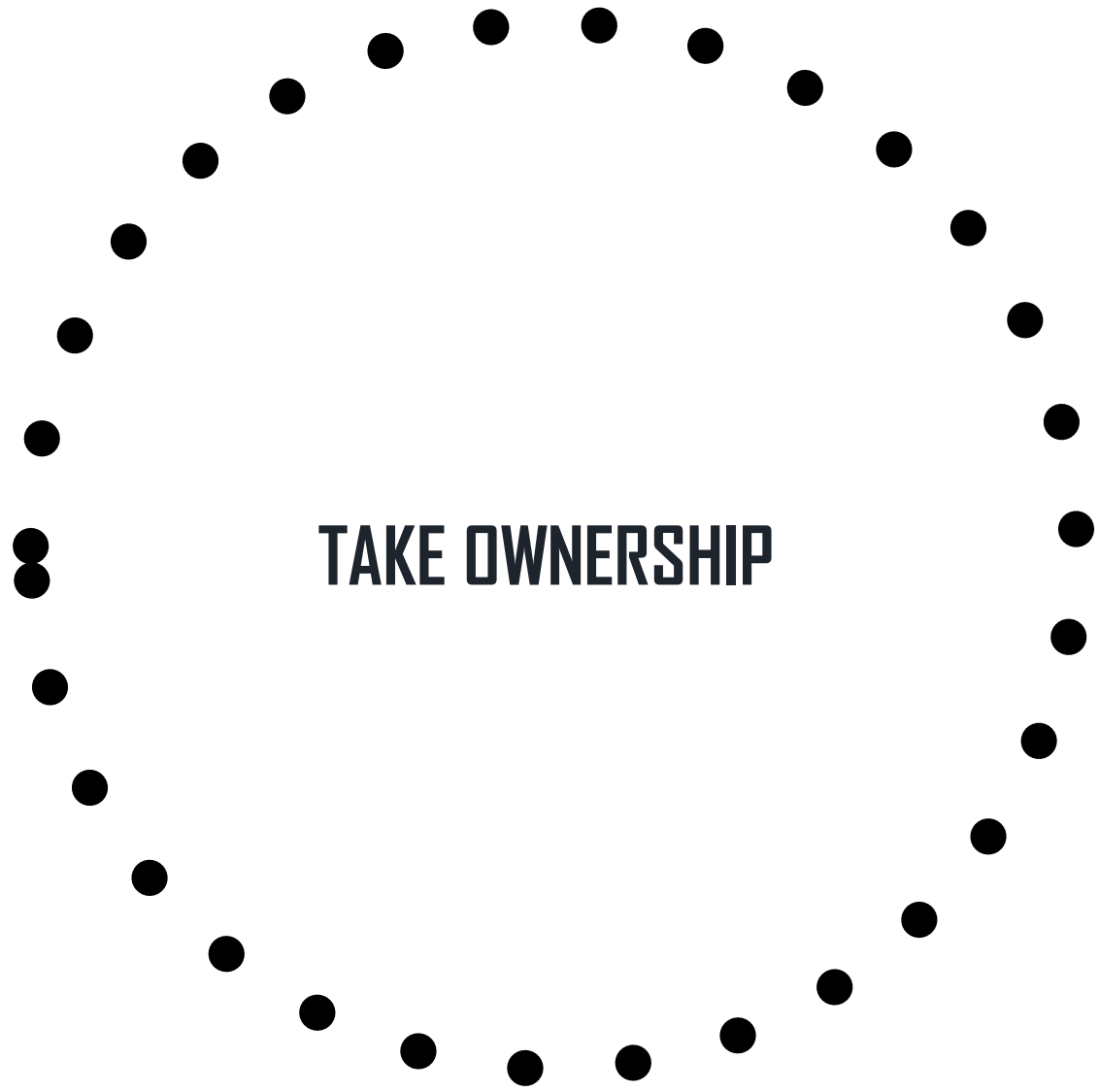
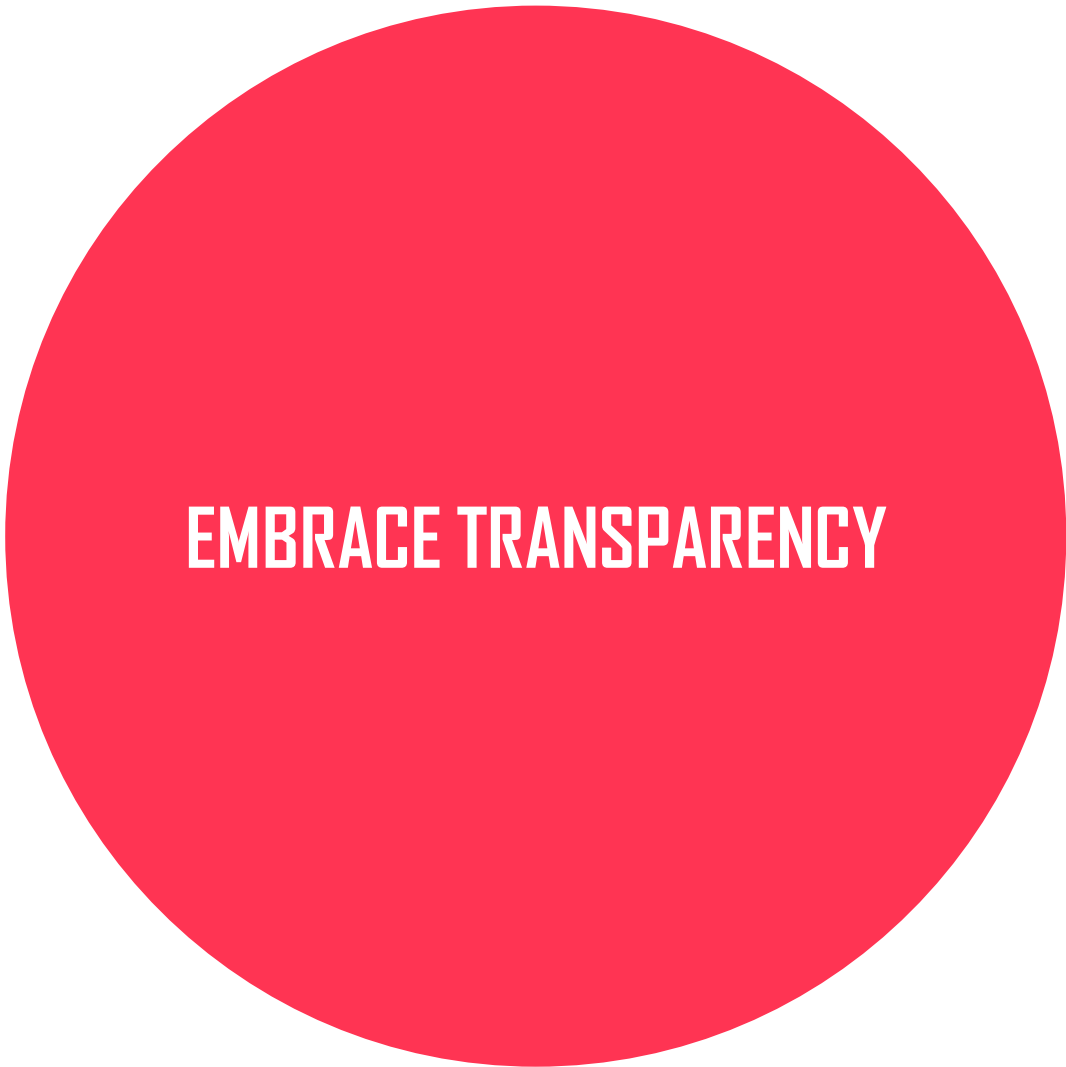


TORONTO
CHICAGO

LONDON

KAUNAS
VILNIUS

MAJOR
WELCOME
LEAGUE



You probably need automation



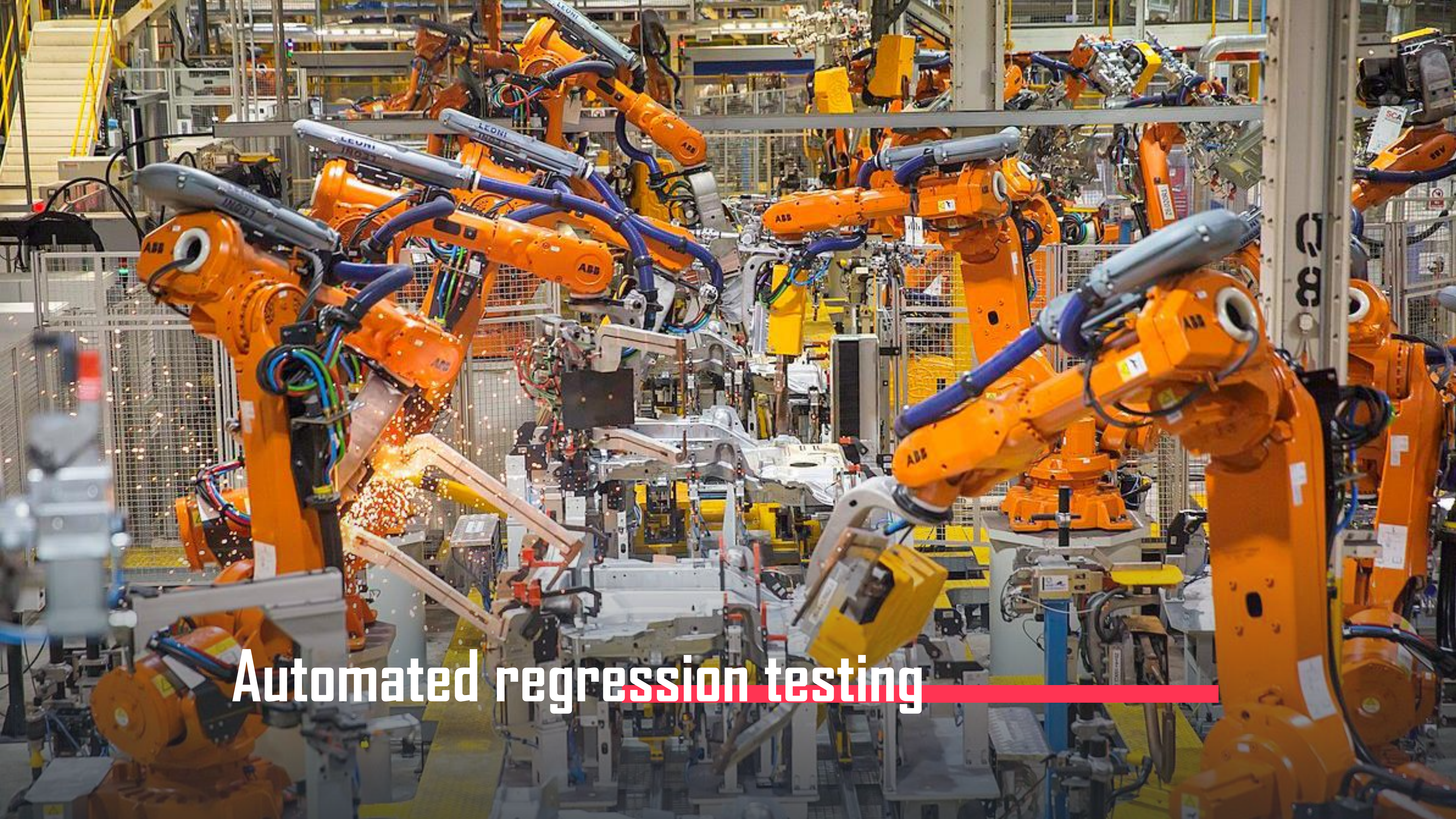
jQuery 2.1.4 has a security bug.



You shall upgrade!



Manual regression testing



Automated regression testing

Why you probably need automation?

1. Manual testing is boring

Why you probably
need automation?

How often do you release?

			Install RAID	API Tests	UI Tests	Reporting and Cleanup
Average stage times: (Average <u>full</u> run time: ~2h 23min)			37min 35s	5min 8s	1h 36min	1min 46s
#389	Oct 12 08:04	No Changes	35min 54s	4min 52s	1h 23min	1min 42s
#388	Oct 12 02:04	No Changes	46min 15s	5min 11s	1h 30min	1min 50s
#387	Oct 11 20:04	No Changes	54min 52s	5min 9s	1h 31min	1min 44s
#386	Oct 11 14:04	No Changes	40min 14s	4min 46s	1h 31min	2min 6s
#385	Oct 11 08:04	No Changes	25min 31s	4min 44s	1h 22min failed	1min 30s (paused for 29min 59s)

Automated Tests Pipeline

An aerial photograph of a dense, vibrant green forest. A narrow, light-colored path winds through the trees, leading to a simple wooden bench in the middle ground. The trees are mostly deciduous with bright green foliage. In the foreground, there are some bare, grey branches. The overall scene is peaceful and scenic.

Ahh...beautiful



Run for your lives

- 1. Manual testing is boring**
- 2. Continuous integration**

**Why you probably
need automation?**



Bug life cycle

Bug life cycle



- 1. Manual testing is boring**
- 2. Continuous integration**
- 3. Support the last line of defence**

**Why you probably
need automation?**



It's fun

- 1. Manual testing is boring**
- 2. Continuous integration**
- 3. Support the last line of defence**
- 4. It's fun**

**Why you probably
need automation?**



Why you probably
need automation?

- 1. Manual testing is boring**
- 2. Continuous integration**
- 3. Support the last line of defence**
- 4. It's fun**
- 5. Helps testers learn programming**

Test automation framework

Project vision

- Build pages from custom components
- High reusability
- Fast development cycle
- All features are covered by automated tests





Legacy testing framework

- Duplicated code
- Difficult maintainability
- Programming language was not familiar to our developers



Technology stack



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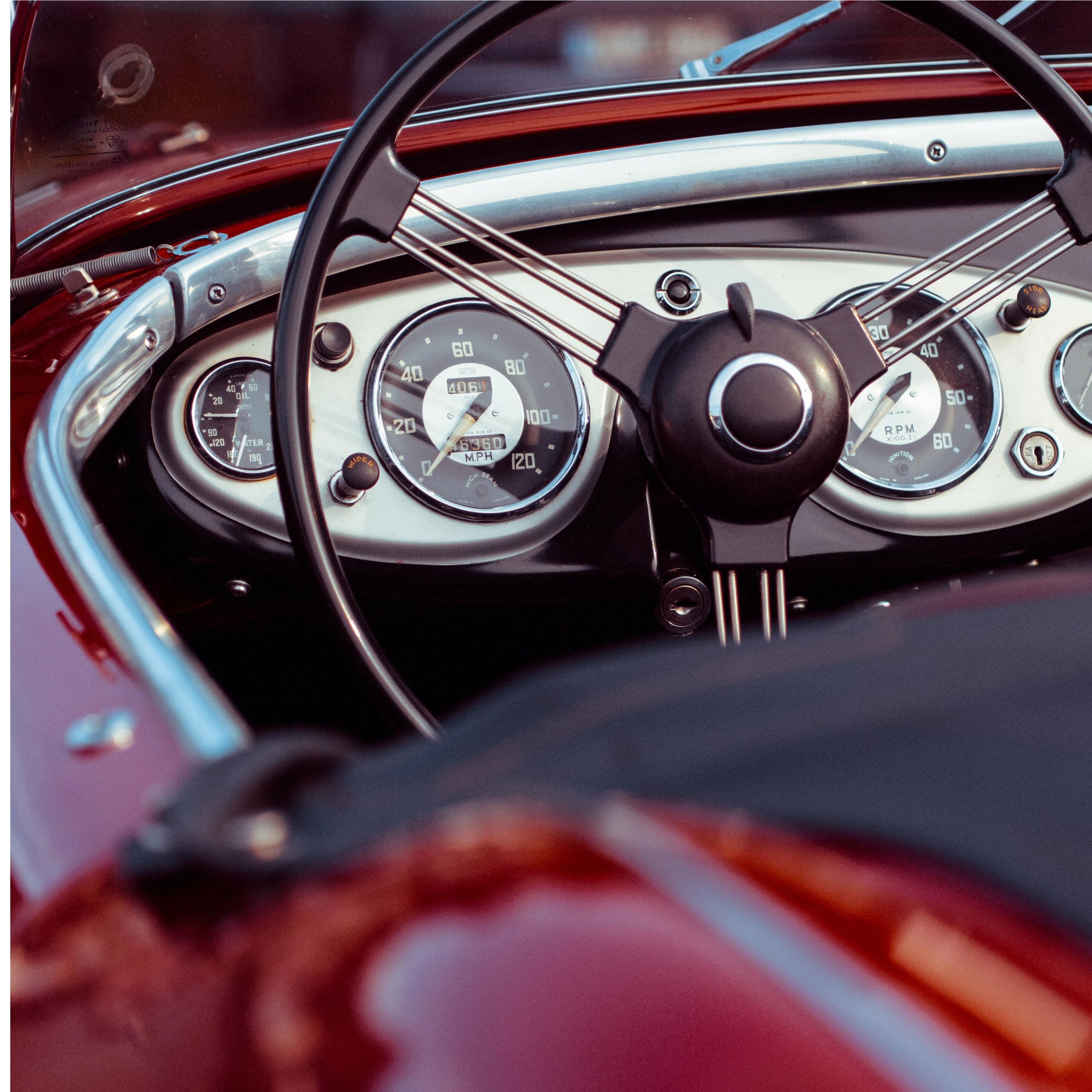


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Components

- Main building blocks
- Handles interaction



Components

- Every component has its representation for testing
- Reusable
- Easy interaction



Component context

- Country
- City
- Street
- House
- Door number



Component context

- Joins components
- Allows them to remain generic

- **Modal** (City)
 - **Header** (Street)
 - **Content** (Street)
 - **Actions** (Street)
 - **Button** (House) **label**="Yes" (Door number)
 - **Button** (House) **label**="No" (Door number)

Confirmation Modal

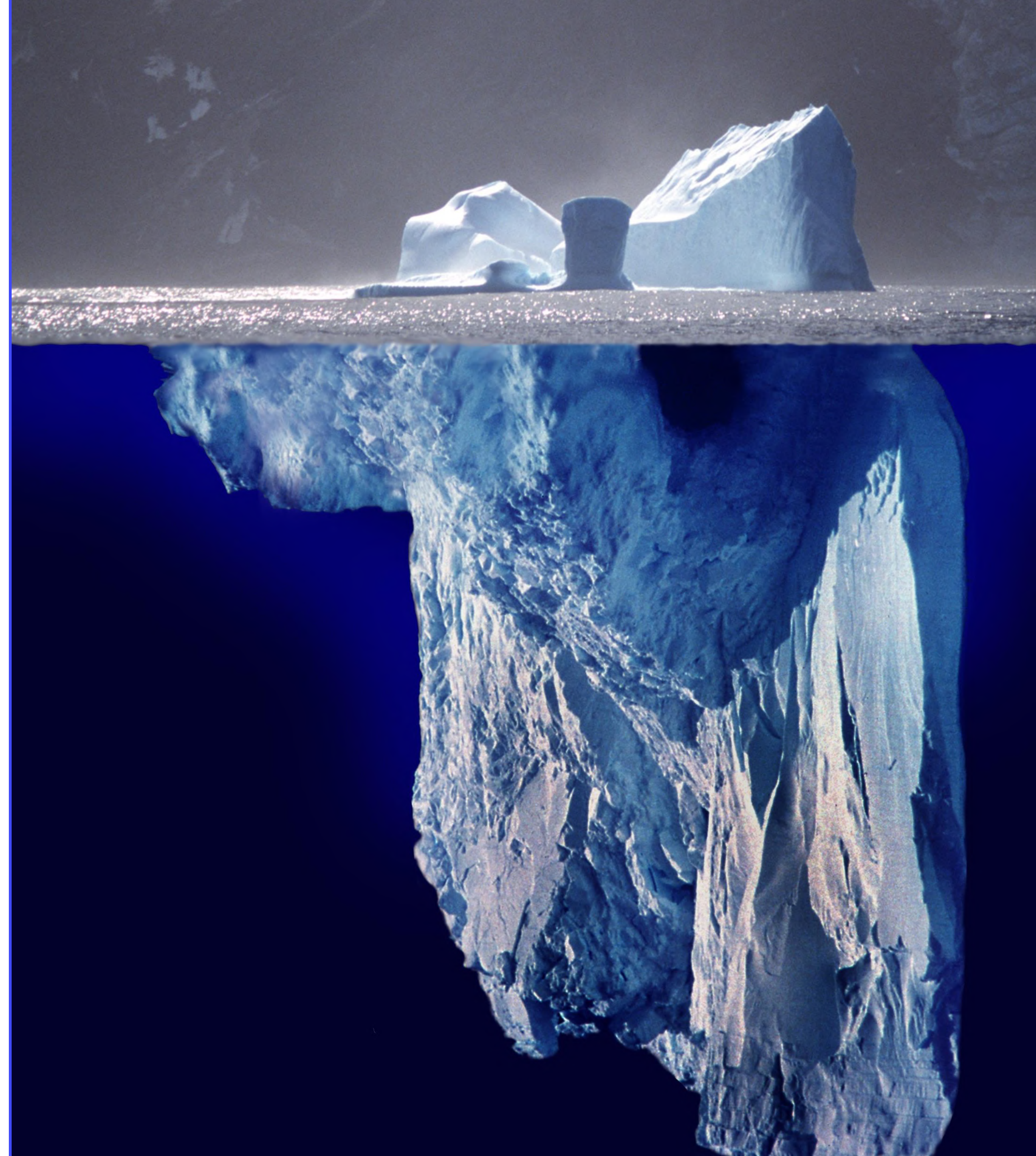
Do you want to perform this action?

Yes

No

Writing tests

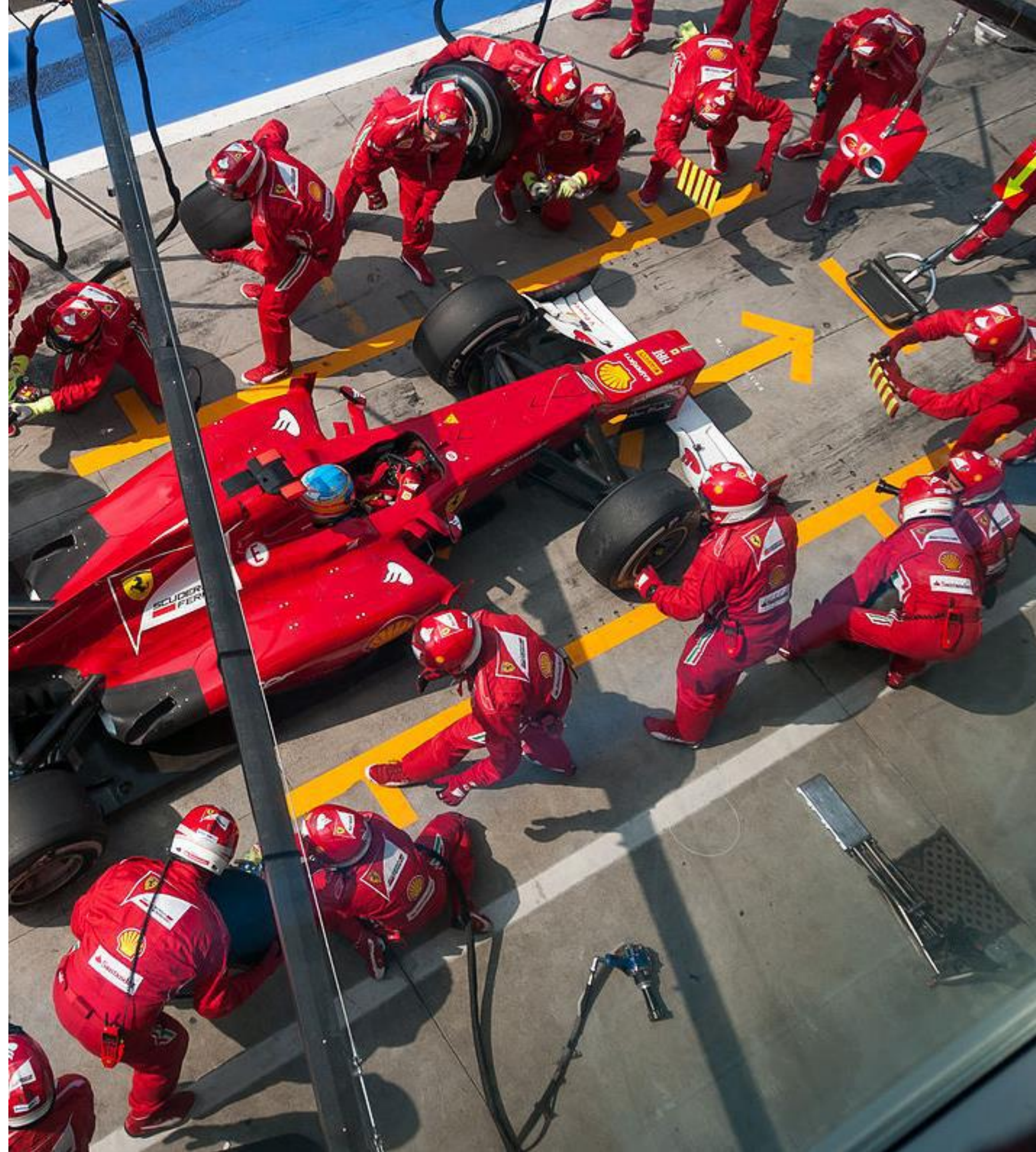
- Framework can be complex
- Writing tests should be easy



Maintenance

Code reviews

- Share programming knowledge
- Share testing knowledge
- Avoid human error



Continuous integration - Green

- It's all about the trust
- Better response time



Decoupled tests

- Focus on unit under test
- Use navigation via URLs
- Avoid UI interaction for setup/teardown



Test automation during sprint is real

“Definition of Done. Each scrum team has its own **Definition of Done** or consistent acceptance criteria across all User Stories. A **Definition of Done** drives the quality of work and is used to assess when a User Story has been completed.”

Definition of Done

- 1. Code complete**
- 2. Code reviews**
- 3. Manual testing**
- 4. Automation test coverage**

1. You have to finish code before automating

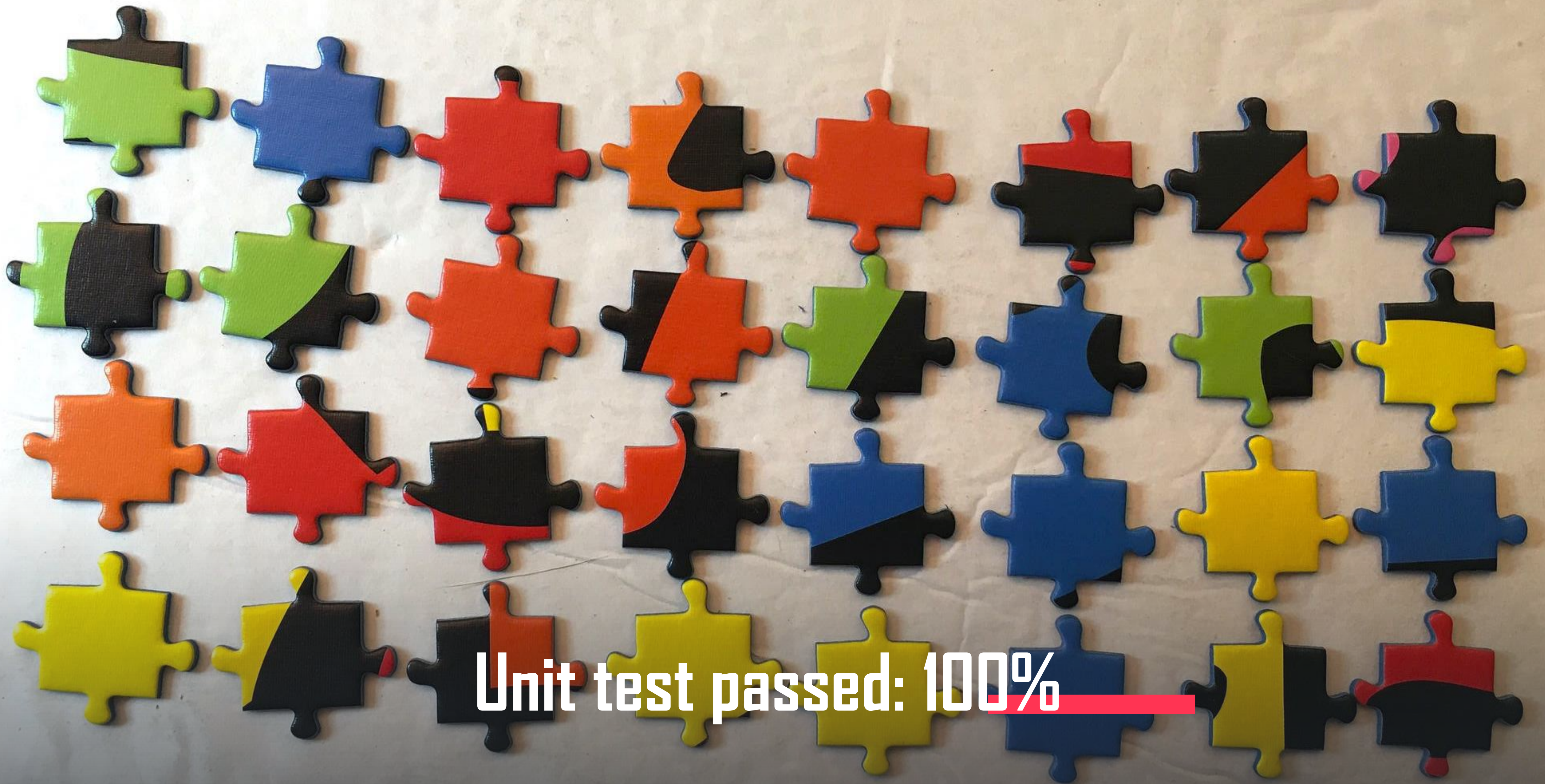
**Myths of
auto - skeptics**



Test driven development

- 1. You have to finish code before automating**
- 2. It's already covered in unit tests**

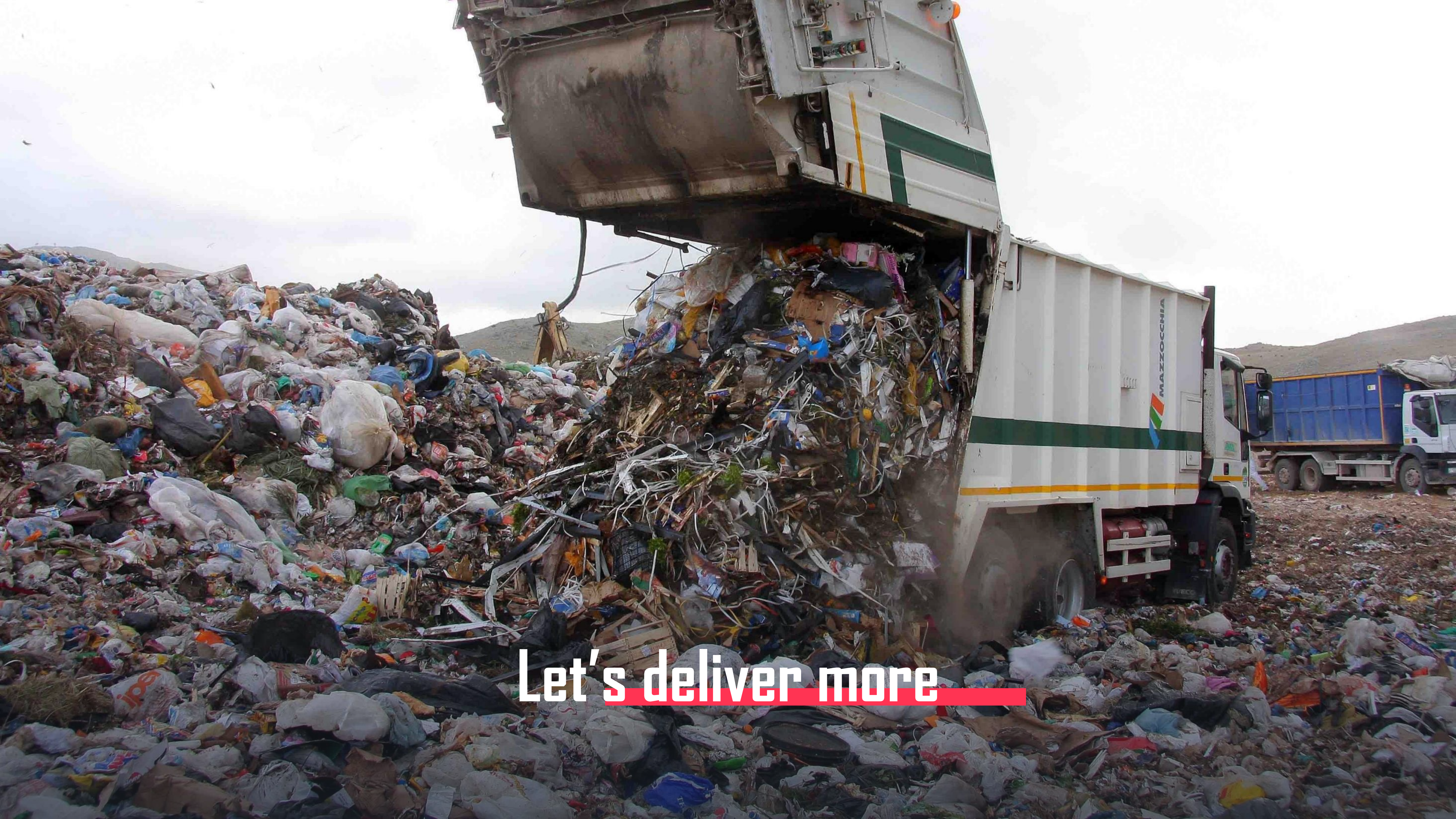
**Myths of
auto - skeptics**



Unit test passed: 100%

Myths of auto - skeptics

- 1. You have to finish code before automating**
- 2. It's already covered in unit tests**
- 3. We will deliver less in same time**



Let's deliver more

**Test Automation:
From Zero To Hero**

- 1. Convince your team that you need automation**
- 2. Choose tech stack that team is already familiar with**
- 3. Make sure framework is maintainable from start on**
- 4. Add test automation to definition of done**

Have questions?



Thank You.

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