



# Flaky tests

## *An introduction*

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# Presentation outline

- What are flaky tests?
- Why are flaky tests a problem in DevOps?
- When do flaky test appear?
- How are flaky tests handled in DevOps?
- Conclusion

# Developer Workflow scenario

- You work on a new feature
  - push to CI → all tests pass except one
- You investigate the failure to fix it
  - push to CI → all tests pass except a different test this time!
- You investigate the new failure
  - push again to CI → All tests pass??



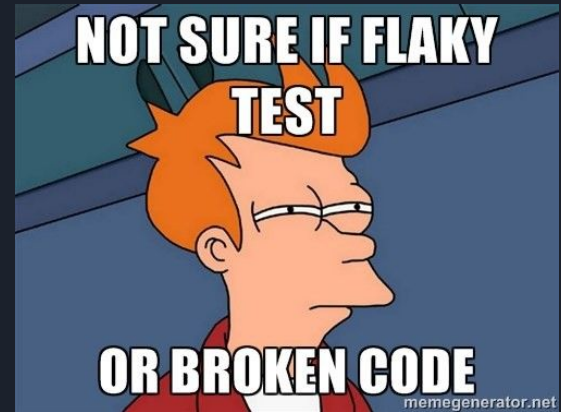


# Definition

- “test that exhibits both a passing and a failing result with the same code.” - google
- “It’s a test that sometimes fails, but if you retry it enough times, it passes, eventually.” - gitlab

# Flaky tests in DevOps

- Devops is about automation
- Flaky tests
  - bugs
  - expensive
  - damage morale

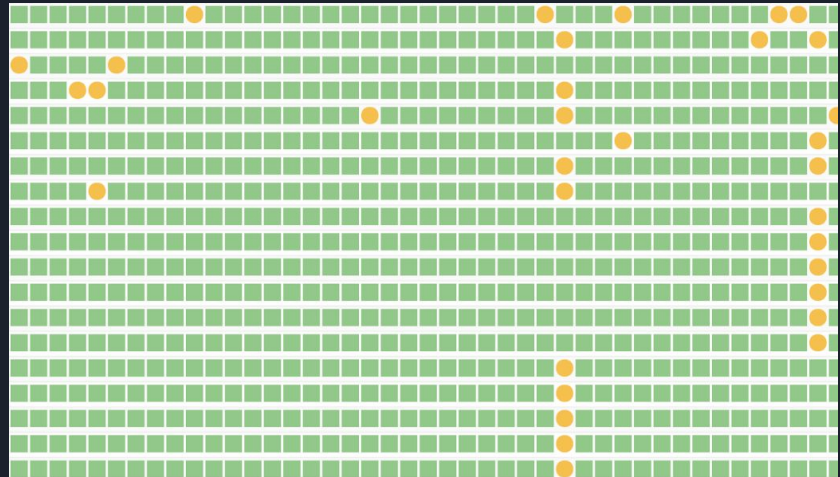


# Flaky tests in large companies

Trivia from Google

About 1.5% of Google's tests are flaky\*, 63 000 tests each week

\* as of 2017



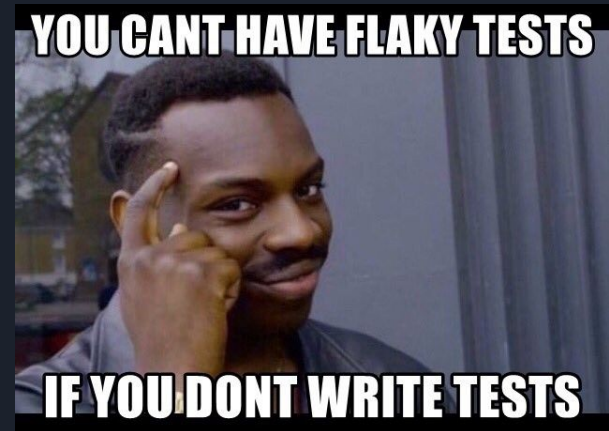


# When do flaky tests appear?

- uncontrolled state
- large tests
- concurrency / timing
- E2E

# How should flaky tests be handled?

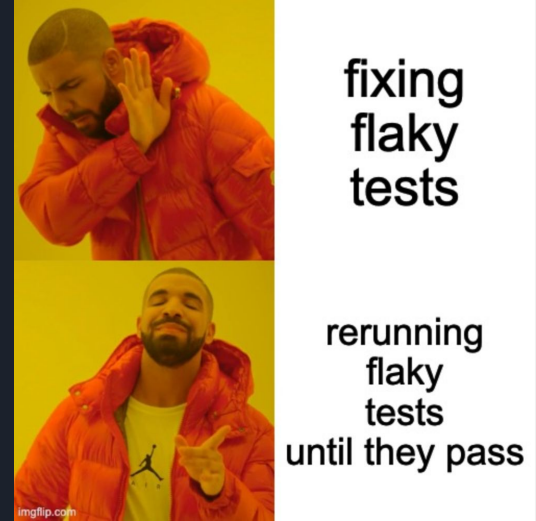
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# Handling flaky tests - some options

- ignore them
- re-run tests multiple times
- manual inspection
- scrap them
- fix them
- quarantine





# Conclusion

- Take away

There are no easy solutions - but you should have a strategy for dealing with flaky tests when they appear.



Thank you for listening!