

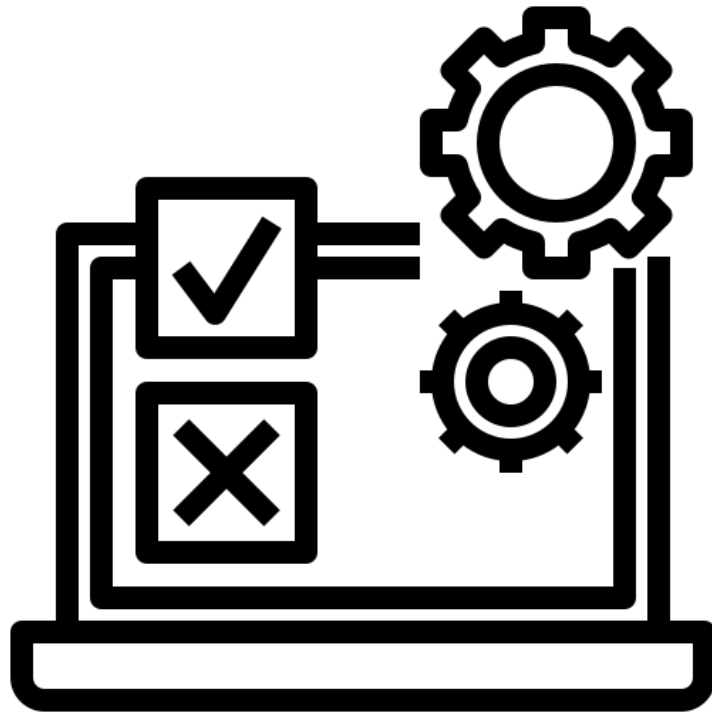
# E2E and UAT

## Automation and lessons learned

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# Foreward

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# Outline

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Types of testing

E2E / UAT

Legacy applications

Examples and Selenium demo

Strategies and getting started

# About me

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Mark Kalal

Software development / technology solutions

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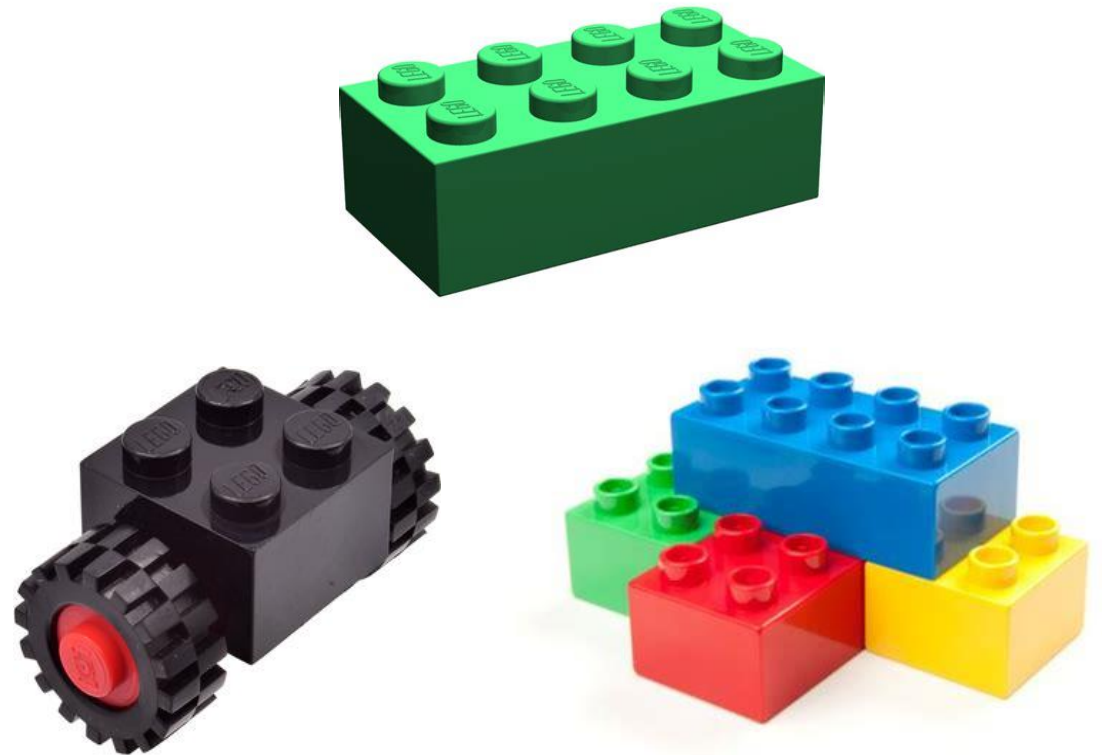
# Types of Testing

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Unit testing

Integration testing

End-to-end testing



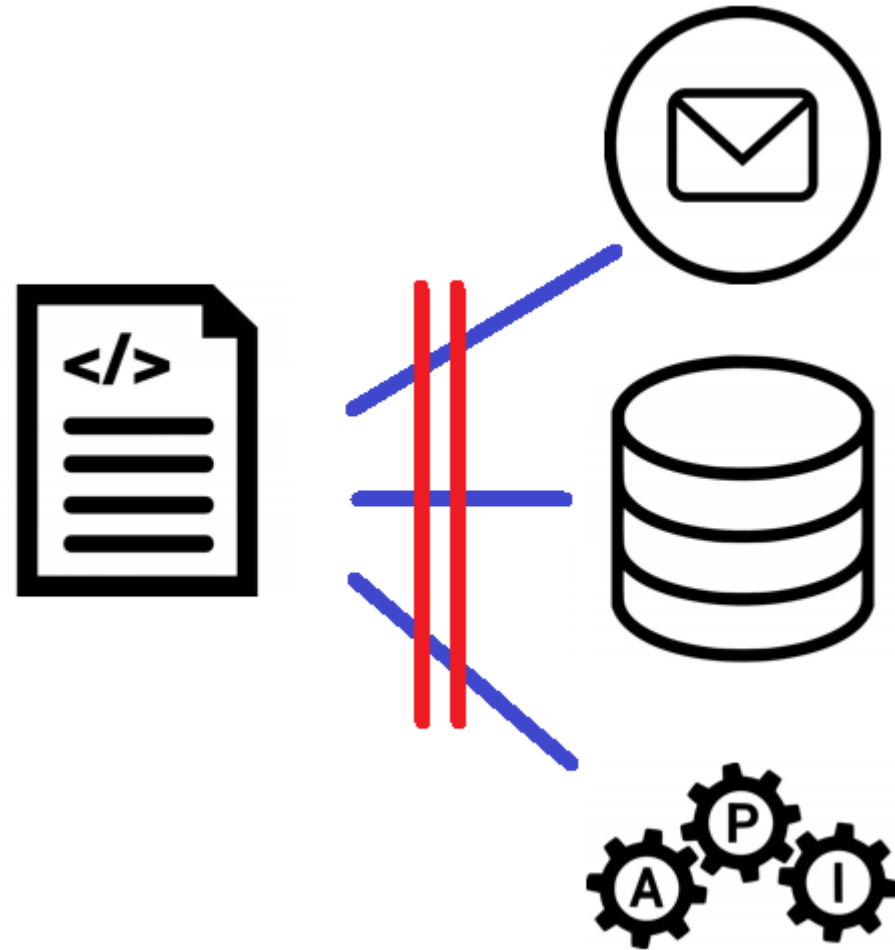
# Unit Testing

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Fast to run, repeatable

Efficient

Don't give complete view



# Unit test vs. Integration test



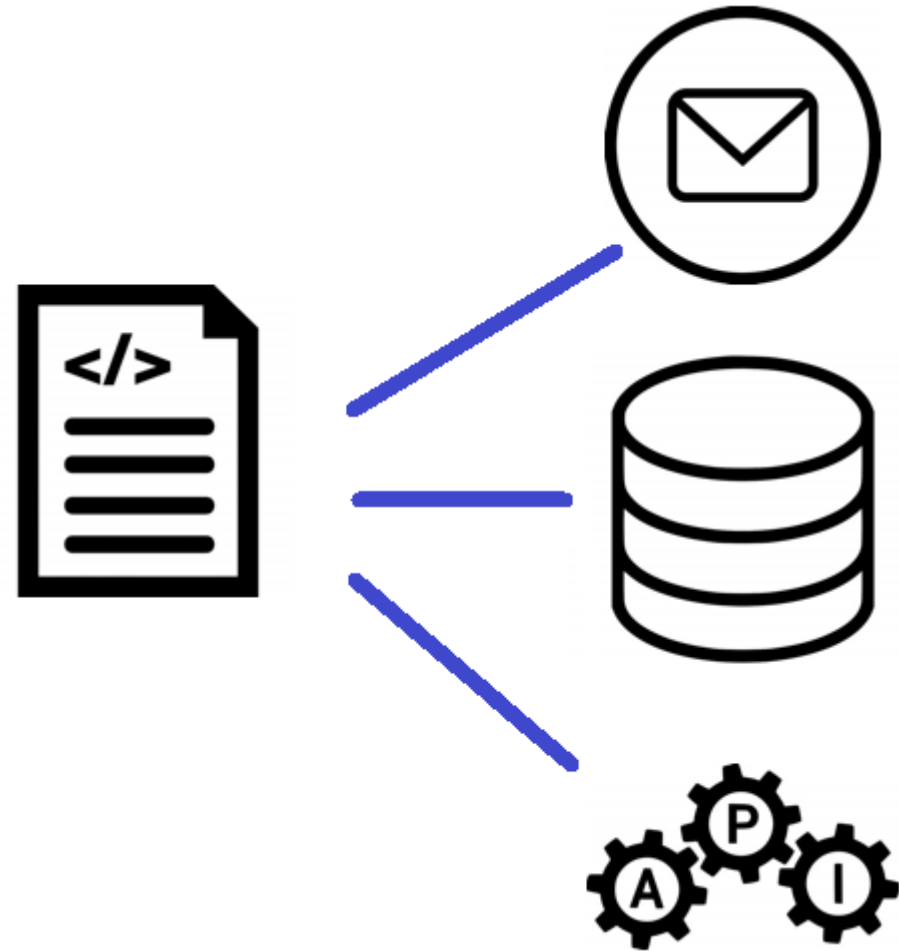
# Integration Testing

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Greater confidence

Impractical for rapid iterations

More prone to failure





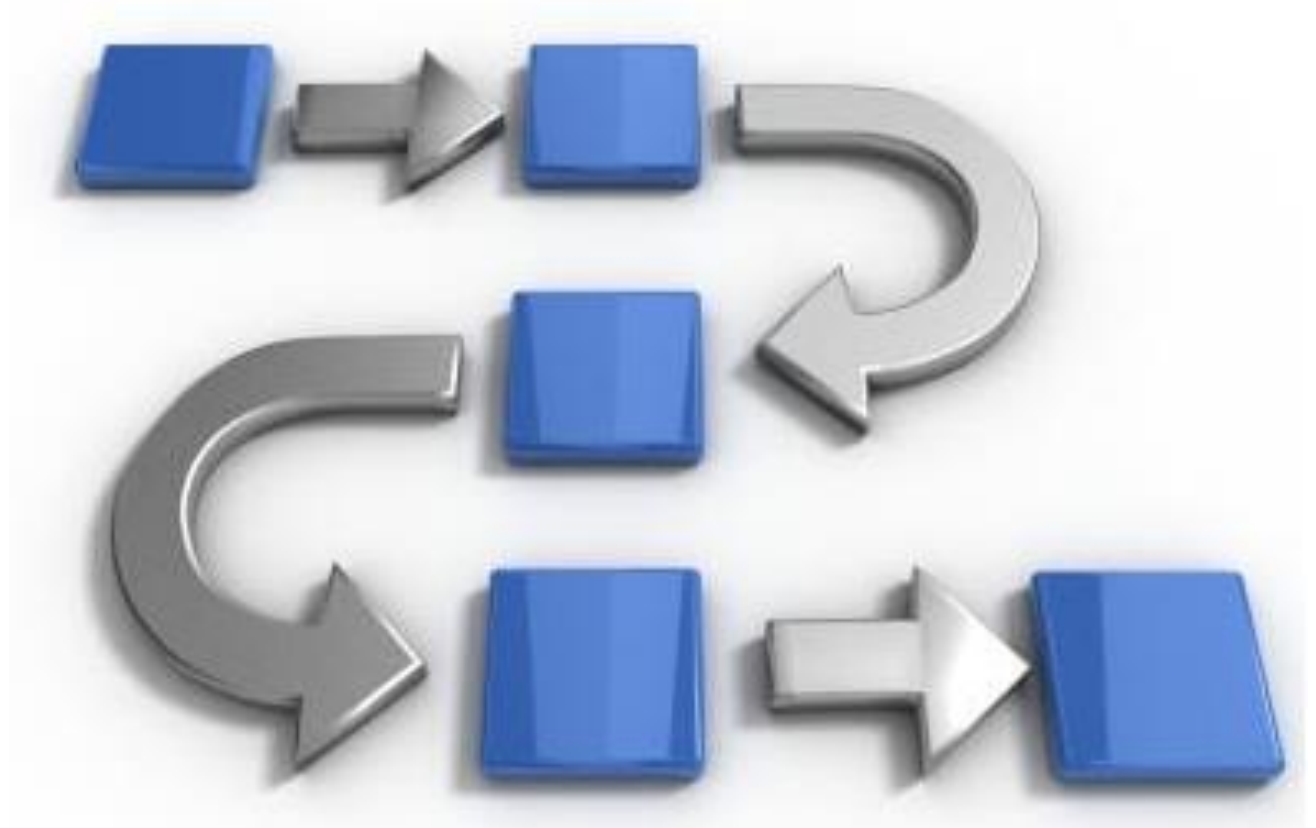
# End To End Testing

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Greatest confidence

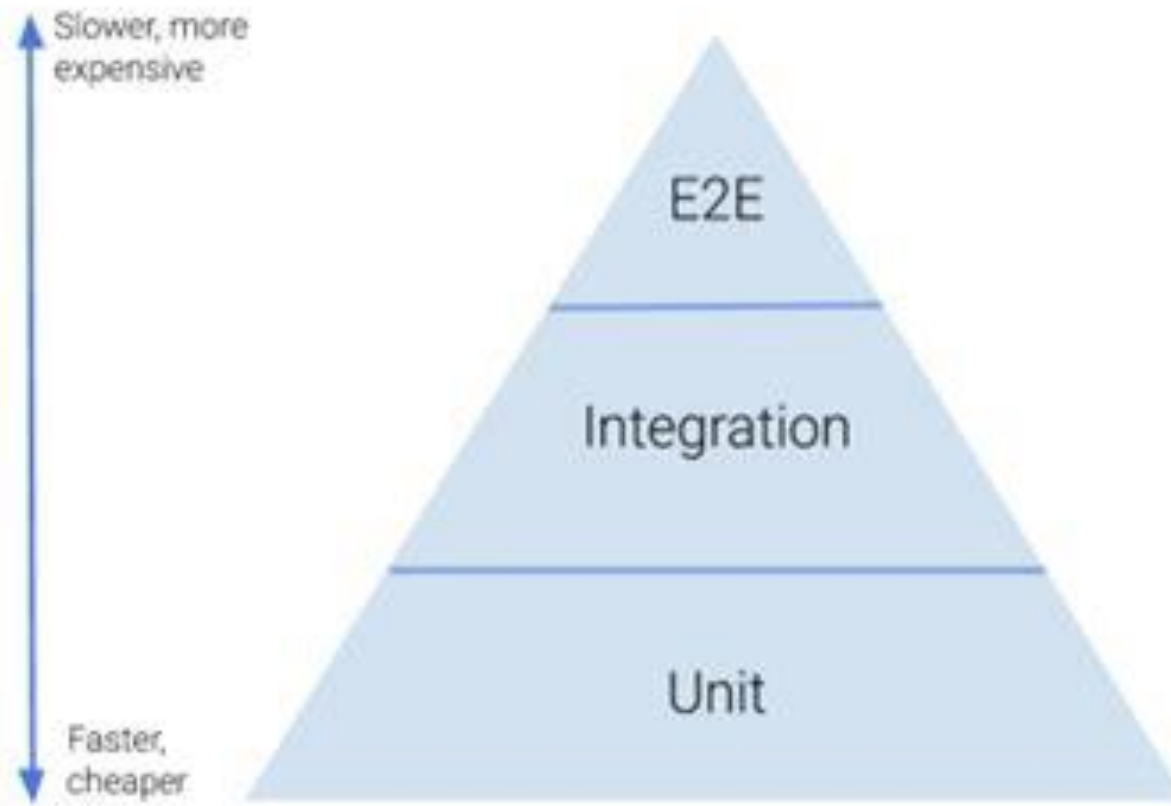
Longest, hardest

Can be challenging to automate



# Test Pyramid

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# User Acceptance Testing

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Verification vs Validation

Another “zen” topic

Scope?



**When the code is an absolute mess but it works**



# The “Legacy” Application Challenge

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Unknown/unfamiliar

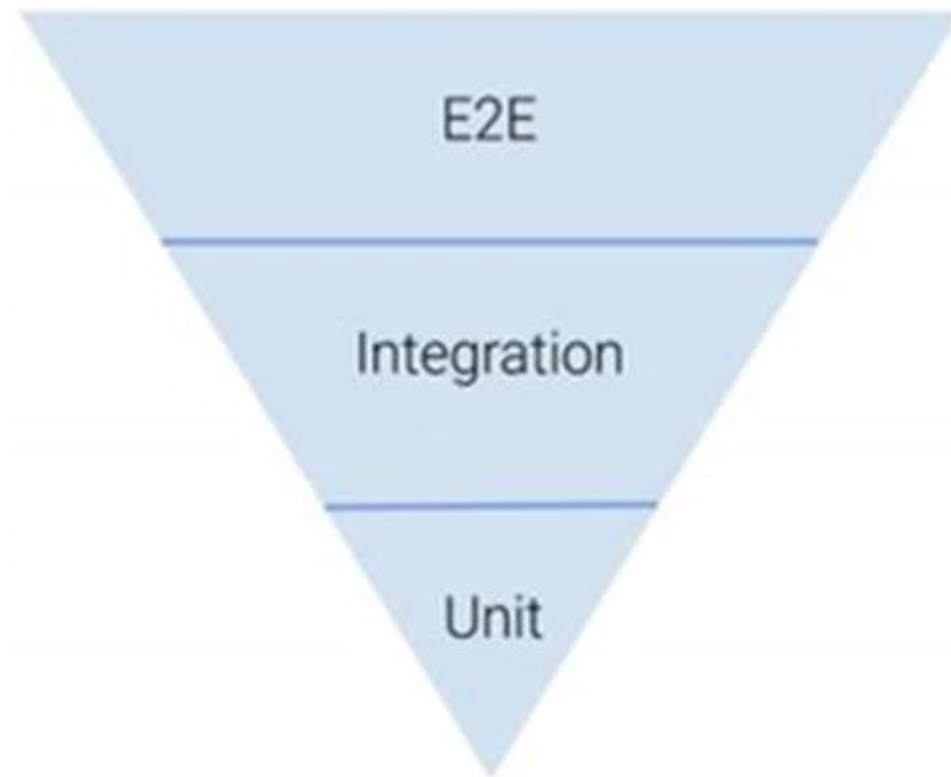
Few documents/tests

Hard to test



# “Legacy” Pyramid?

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# Demo

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Selenium IDE (browser extension)

Web Driver (C# test project)

Approach details

- Selectors
- Mechanics
- Org / flow





# Tie it all together

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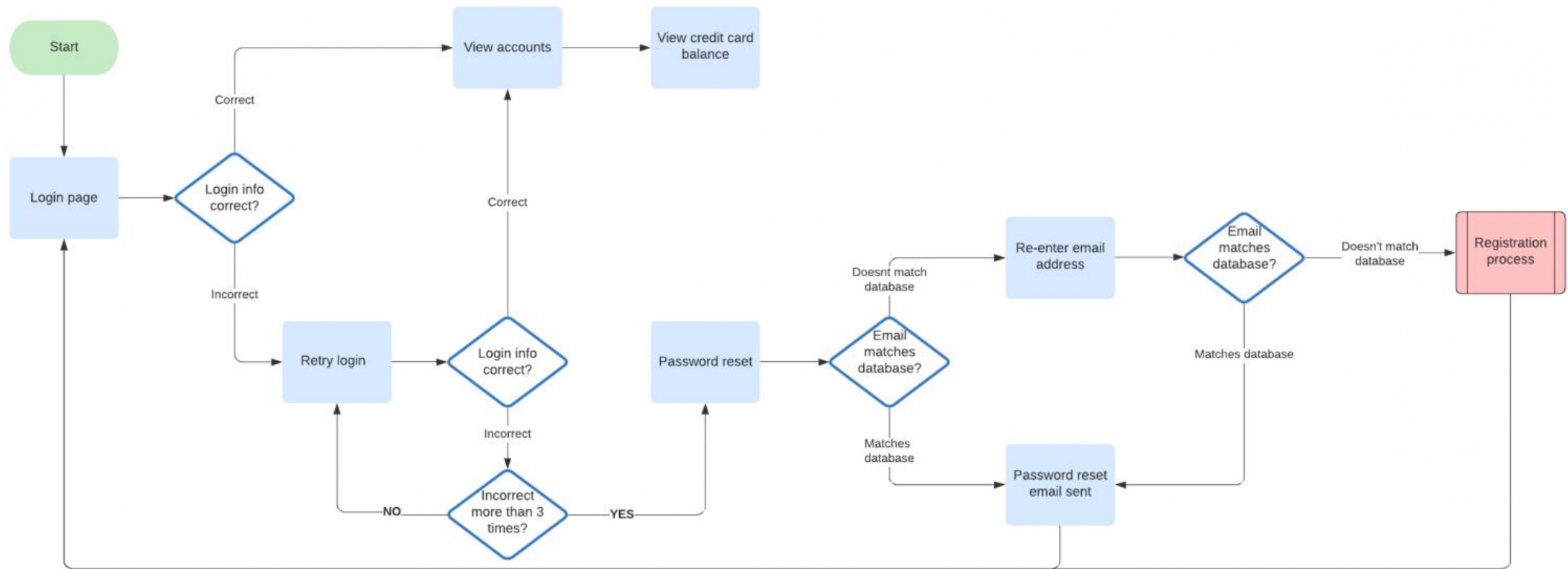
Get started

Benefits/problems

Strategies



# User journey



# Best Practices

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Organization

Manual vs Pipeline

Data strategy?



# “Legacy” Applications

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Start with what you can

Refactor or not?

As code is added/refactored, include unit tests

Trouble spots are good candidates for tests



# Summary

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- ✓ Types of testing
- ✓ E2E / UAT
- ✓ Legacy applications
- ✓ Examples and Selenium demo
- ✓ Strategies and getting started

# For more information

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E2E Testing - <https://microsoft.github.io/code-with-engineering-playbook/automated-testing/e2e-testing/>

Good Testing - <https://codeanit.medium.com/developers-guide-write-good-test-5e3e3cdec78e>

Selenium WebDriver - <https://www.selenium.dev/selenium/docs/api/dotnet/>

Selenium test pages - <https://www.selenium.dev/selenium/web/index.html>

This slide deck and code project – <https://github.com/mdkalal/E2E>

URList - <https://www.theurlist.com/kalal-e2e>



# TECH *Masters*

[www.TechMasters-TC.com](http://www.TechMasters-TC.com)

Tuesdays, 7:45-9:00 am

# Thank you!

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Feedback welcome

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