Exploring Maintenance Testing

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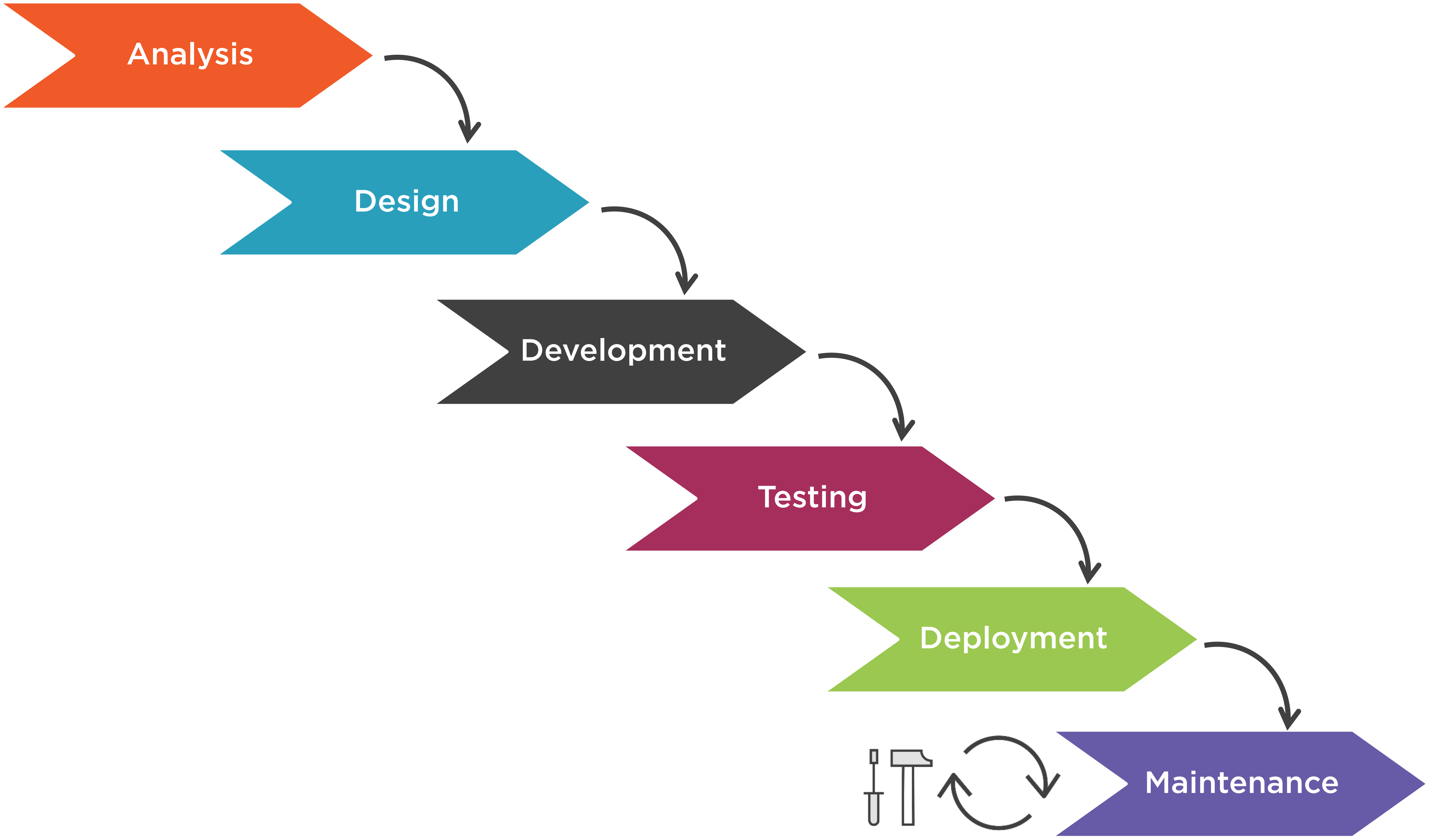
TEST AUTOMATION ENGINEER



Analysis

Design

Development

Testing

Deployment

Maintenance

Overview

Kind of maintenance

Triggers for maintenance testing

Impact analysis

Course wrap up

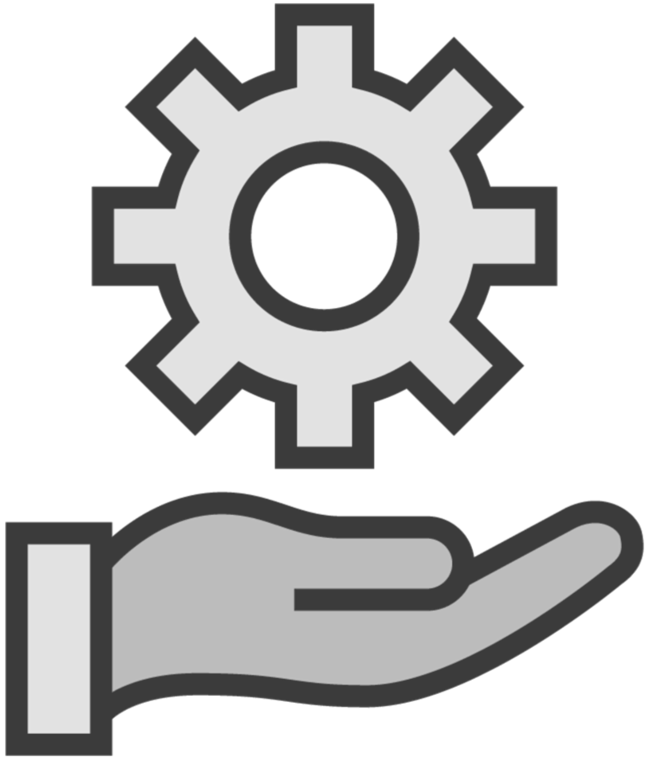
Systems need to be maintained because changes are inevitable.

Change Categories

Unplanned

- Bugs or failures in production
- A “hotfix” required

Change Categories



Planned

- Software enhancements
- Operational and environmental upgrades
  - Example: SQL Server migration to a newer version
- Retirement
  - SW not fit for purpose anymore
  - Rewriting the SW using newer tech

Impact Analysis

Evaluates the changes made to identify consequences and potential side-effects

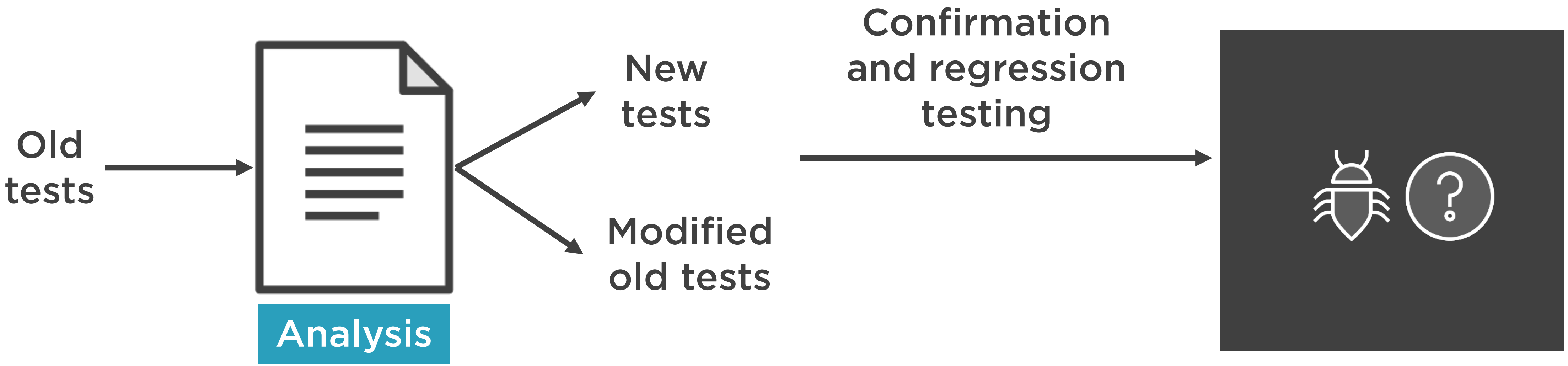
Impact Analysis

What has changed?

Where in the system?

Which parts are definitely affected?

Which parts are likely to be affected?



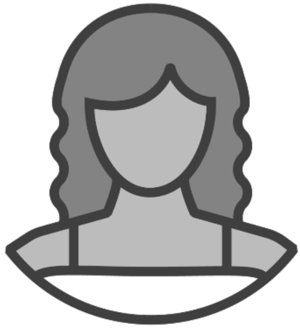
Old tests

Analysis

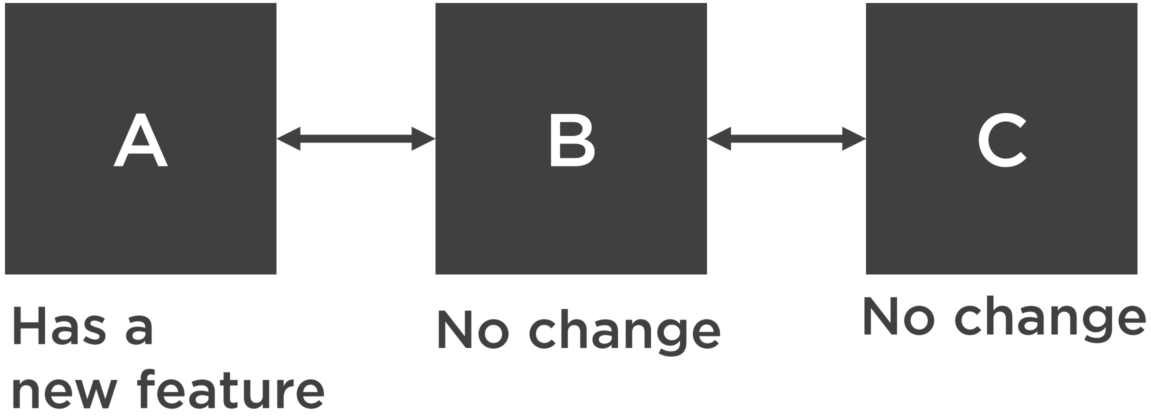
New tests

Modified old tests

Confirmation and regression testing



I need to test this, but I only have 2 days...



A

B

C

Has a new feature

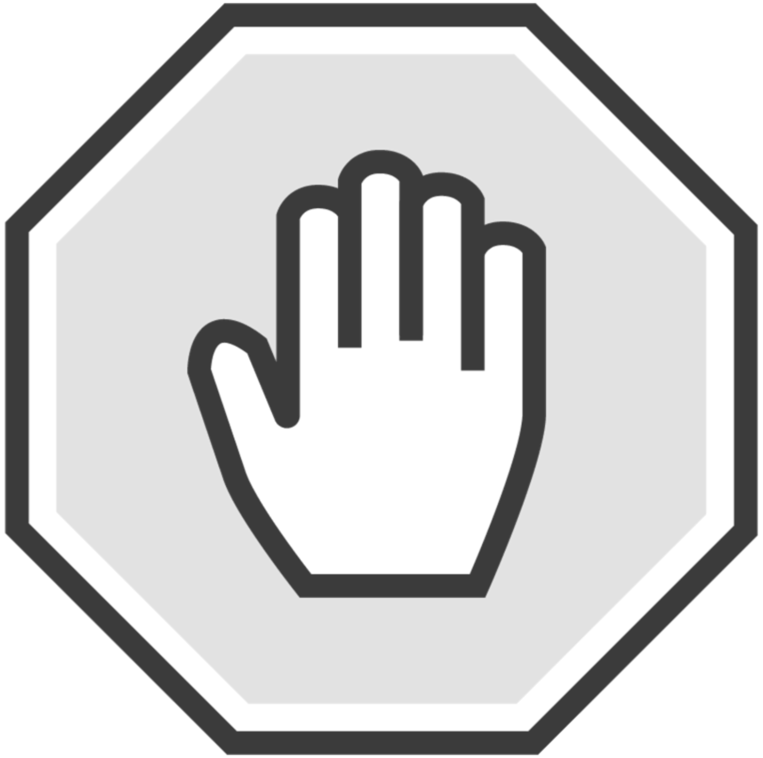
No change

No change

Prioritize:

1) Test Module A (the new feature)
2) In the past 2 months:
   - Module B had 10 bugs ← Focus here!
   - Module C had 2 bugs
3) Test Module C if you have spare time

Impact Analysis Challenges



Outdated specifications

Lack of knowledge

Outdated test cases with no traceability

Weak or non-existent tool support

Summary

SDLC: Software Development Lifecycle

Multiple models exist - sequential and iterative

Systems are layered

Levels: unit, integration, system, acceptance

Types: functional, non-functional, black-box, white-box, etc.

Testing never stops - maintenance testing is a must

Rating

Thank you!

(Happy testing)