

Introduction to Creating Test Strategies





De Agile Testers



Agenda

- ▶ What is a Test Strategy?
- ▶ What influences a Test Strategy?
- ▶ How do you create a Test Strategy?



Main sources



https://rapid-software-testing.com/



https://www.deagiletesters.nl/test-skills/cpat



The tool for today: Miro

https://miro.com/app/board/o9J_lJ4ydAU=/

To make it easy, go to: http://bit.ly/MoT99minTS





Hi there!

Let's get to know each other a little better...

- 1. Where are you from?
- 2. What is your favorite thing to do outside of work?
- 3. What is your role within your company?
- 4. What is your experience with test strategies?

Write your answers in the chat please!



What do you want to learn today?

Write your answers in Miro please!

What do you want to learn today?

Get better knowledge on how to decide what is best strategy to test (depends on complexity, time)

Get a foundation on test strategy

Learn an efficient way to write strategies in less time

document

How to

test

strategy

Get a new perspective on what makes a useful Test Strategy.

Get a new perspective on how to create an effective test strategy

Create and communicate a *relevant* Test Strategy, with some format that could be collaborated on.

New ideas / approaches for thinking about and creating strategies

How to approach when domain

is unknown

gain new

perspectives

for test

strategies

how to better communicate my test strategies to the rest of the company (documentation)

How to create good test strategies and how to choose the best one

when the project is starting up, how to fine tune a test strategy so that it is followed by devops team and useful for analysis later-

How to make them short and valuable



Get a foundation on a proper test test strategy

> Prepare test Strategy based on Context rather than using the same strategy for all projects

How to fit test strategies into my current testing environment

How to create a test strategy

learn to see if I'm doing it right

get ideas/learn how to create one/review the existing one

Effective test strategy work - "how to"



What is test strategy?

Write your answers in Miro please!

What is test strategy?

- define goals - define test data & how to find them - define how to test

(tools, documentation)

- define test success

metrics

How to approach from testing perspective. Interms of planning, execution .

To answer questions around What , How ,

a structural way to make decision on which tests need to be created A long term
vision that
should
guide the test
efforts

General approach to testing.

approach How to test this?

A tool to describe what to test, when and how identify ways to find out risks and enable devops to think of them and handle them during dev and post production phase What to test? How to test? When to test? Who to test? A guide to decide the best way to test each project



A document which includes the way tests will be done, the AC to exit the tests, environment, people involved, etc...

Document which describes the testing

approach

Guides what tests you will choose to run and how you will run them.

How you approach the testing of a product throughout the SDLC

a preliminary outline of what is needed to successfully test a feature for release

> a focal point of thought that your tests refer back to

an overview of the more detailed tests/an approach to testing (defined at lower levels) Who, What Where and when

Something that outlines:
- what is important to test
-what we are testing,
-how we are doing it
-what we aren't testing
- What risks / unknowns
there are

An approach to the testing carried in the project baed on the scope



What words come to mind when you think about Test Strategy?

Write your answers in Miro please!

What words come to mind when you think about Test Strategy? test

Documentation

when an

reference needed

coverage for all code

guide

Planning

Answer to the question:

- how to?
- what?
- until when?

organized thorough

risks

application type

re-useable to a certain extend

Communicating to the team what is in your head.

3 amigos

> communicating what is in your head to the rest of the team.

hard to maintain

define what kind of testing is useful in the project

living doc of reqs!?

Quality criteria Risks assessment

changes

Project, Specific, Share info Test types, team, timelines, heuristics

A document that is written and then gathers dust on a shelf

guideline

always game plan

analyze planning execution

- a direction

- conditions

- steps

-guide - not too specific

changing



What is a test strategy?

- Strategy: "The set of ideas that guide your test design or choice of tests to be performed."
- Logistics: "The set of ideas that guide your application of resources to fulfilling the test strategy."
- Plan: "The set of ideas that guide your test project."

Plan = Strategy + Logistics



What is a test strategy?

A test strategy is **NOT** a document!

A test strategy is a **set of ideas** that guide your test design. It is a **mental model** of which only some parts will be visualized by documenting them.



What is a test strategy?

Test Strategy

- Test strategy contains the ideas that guide your testing effort; and deals with what to test, and how to do it. (Some people mean test plan or test process, which is unfortunate...)
- It is in the combination of WHAT and HOW you find the real strategy.
 - If you separate the WHAT and the HOW, it becomes general and quite useless.
- There is always a strategy, but seldom communicated
- It is not written in order to show how smart you are, it is written to communicate your ideas to (at least) two audiences:
 - Stakeholders
 - Testers



What influences a test strategy?

- 1. Step 1: Take 3 minutes to write down a list of everything that influences a test strategy
- 2. Step 2: Now put your list on Miro



Complexity of the task and resources (human and non-human)

response

What influences a test strategy? * Budget

time

constraints

Complexity Time Tools Knowlegede (domain/tool)

the way the users use it

Data.

Product

elements.

Quality criteria

Environment

- available tools

- available people

- product to be tested

- target audience of the product to be tested

the amount of time you have budget ar

To keep everyone aligned with What and How of testing

To keep aligned on the Risk /issues/deadline

The type of

application at test

- web, mobile,

backend database

change

what kind

of people

use the

application

Informatio

n/details

from the

developers

Tupe of Application, Complexity, Schedule, Tools, Team Members, Test Data, Customer Requirement

* Technology currently in place * Available resources

* Stakeholder demands

Test basis

Resources

ime, Business demands, testers Experience,

fast

Timescales, Access to environments. the way the project is run

- time

- current understanding of how product will be used/could be used - complexity

Time available for testing, Maturity of system under test (am I joining at the start or later), number of moving parts, my knowledge

customer, product, business, bottlenecks. impacts

The Organisation Country People Money Project Skills Tools

Objective, Scope, Approach, Data, Testing Types, Entry and Exit Criteria, Suspension and Resumption criteria, Risks

The features that need to be tested. time, knowledge needed and exit criteria

the type of application (desktop, web, mobile)

appetite

team's to change

maturity of the application

Time Resources Complexity Budget Skills/Experience Environment

Test environment available/req uired

Everything that influences the whole project (budget, team, knowledge, timelines, expectations...)

parts of

software

team's skills time, changes risks to other

project size, complexity, experience, timeframe, budget, regulations, ...

stakeholders

expectations;

complexity;

timelines



Building a strategy

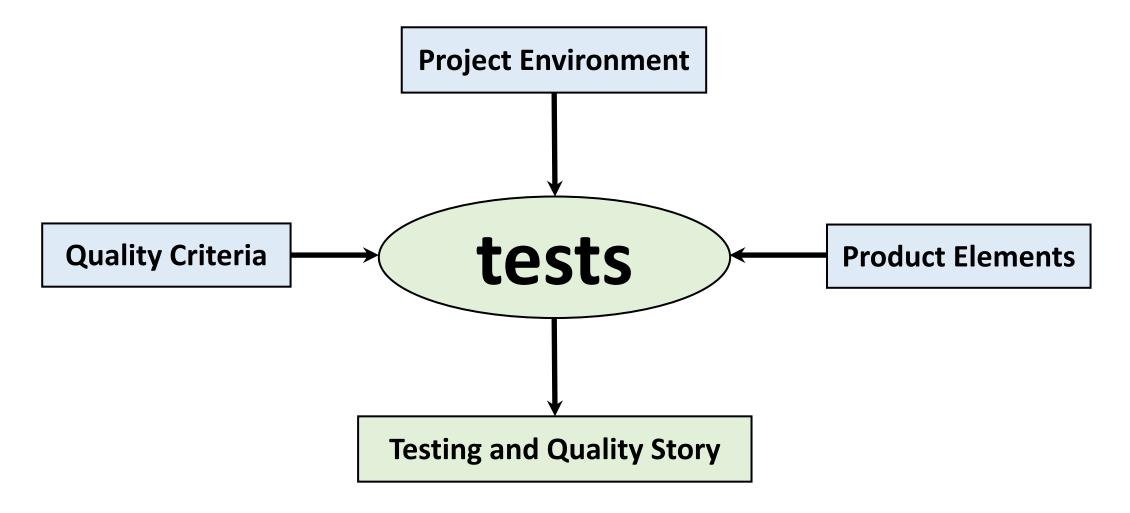
- Embrace the bootstrap approach. Accept that any deep learning or real innovation is a confusing process at first, but it gets rapidly better.
- 2. Apply structuring heuristics. Stop worrying about best practices, and start curating your fallible methods for solving problems.
- 3. Build good mental models. Your mental models of the product control your testing of it. Better models mean better testing.



How do you create a test strategy?

- 1. Missions for testing
- 2. Context: project environment
- 3. Quality criteria
- 4. Product analysis
- 5. Risks
- Oracles & Information resources
- 7. Testing strategies

A Heuristic Test Strategy Model





Exercise

'Wix Casies'







Wix Casies!

This is gonna be a pressure cooker. A fast pace learning experience.

I want you to create a test strategy for a real product in 45 minutes.

I'll guide you through the steps.

It is gonna be fast pace, don't try to be perfect nor complete.



How do you create a test strategy?

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Mission

1. Missions for testing

Your mission for today:

Casies is webshop build with the Wix platform where customers can buy a case for their mobile phone. Your mission is to find problems we want to fix before release. The owner of the website needs information to decide if this webshop can be released.



Context

- 1. Missions for testing
- 2. Context: project environment

Because we only have 99 min we'll skip this for now.



Quality criteria

- 1. Missions for testing
- 2. Context: project environment
- 3. Quality criteria

Most important quality criteria:

- Usability & charisma
- Reliability and security of the purchase process
- Functionality
 - Find, sort & filter
 - Purchase, cart, payment



Product analysis

- 1. Missions for testing
- 2. Context: project environment
- 3. Quality criteria
- 4. Product analysis

Do a product analysis and create a product coverage outline (PCO). Model the product and find aspects of the product that you might wish to cover in some test.



What is a PCO?

A product coverage outline is a detailed, working reference used to answer questions such as:

- What could we test?
- What should we test?
- What are we testing?
- What did we test?
- What did we NOT test?

It may be in plain text or in mindmap form. It may even be a diagram, or a set of Post-Its.



What is on a PCO?

- The short answer is "product factors that could matter".
- A product factor is something about the product that you might wish to cover in some test.
- Put these factors on the PCO if there is some chance you would otherwise forget or neglect them.
- Factors include things users see, and things they don't see; what the
 product is; what the product does; the data it processes; the interfaces that
 it provides or uses; platform elements; and even kinds of things users
 might do with the product; and relationships between the product and
 time.
 - → See the Product Elements section of the Heuristic Test Strategy Model

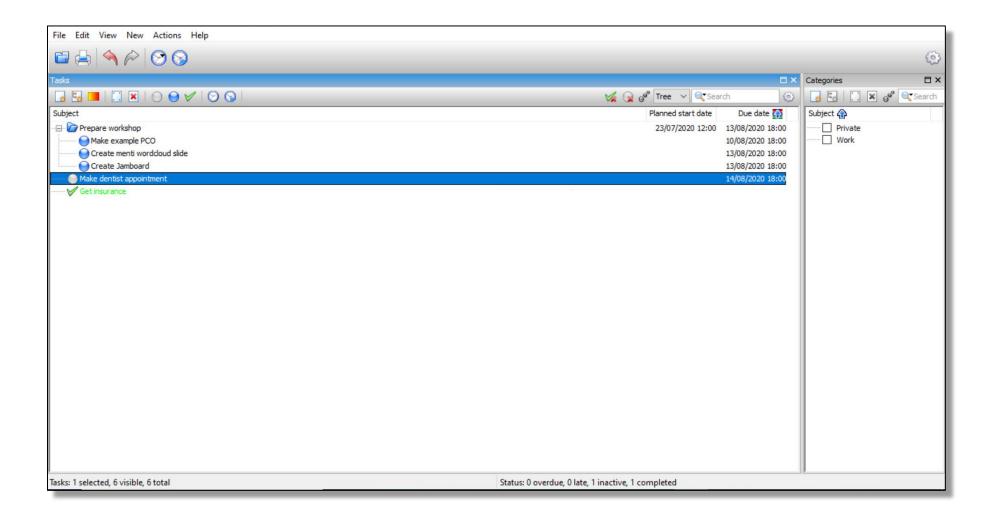


What is not on a PCO?

- Do not include test procedures or test activities. Instead a PCO represents the "ingredients" that you might cover in the testing.
- Do not include risks. Because the same risk can apply to many different factors in a PCO, having risks in a separate outline give more flexibility.
- Do not include **logistical notes about the test project**. A PCO is not a test plan, it is a working reference for considering what to test.



Example PCO



Example PCO

Edit Task Delete Sub tasks Save Description Open Creation date Print Modification date Import Planned start date Export Due date Backup Actual start date Merge Completion date Viewers Data **Functionality** Reminder Modes Recurrence Sort Priority Columns **Progress Filters** Notes Time **Effort** Attachments Budget Appearance **Templates** Categories **Task Coach** Windows Does not work because mail is not configured Mac OS Tip of the day **Platform** Help BSD Linux Help menu Android Todo manager to keep track of personal tasks and todo lists Date finder Have insight in tasks on multiple devices Effort timer **Priorities** Performance Getting things done How is it used? Motivation Memory usage over time Time (Operations) Team planning <1900 Strange date Sharing tasks with others >2050 How do I spend my time Time writing Daylight savings

Create

Watch my video where I make a PCO here:

https://youtu.be/NUojNfDjljw



Product analysis

- 1. Missions for testing
- 2. Context: project environment
- 3. Quality criteria
- 4. Product analysis

Do a product analysis and create a product coverage outline (PCO). Model the product and find aspects of the product that you might wish to cover in some test.



Risks

- 1. Missions for testing
- 2. Context: project environment
- 3. Quality criteria
- 4. Product analysis
- 5. Risks

Do a risk analysis and make a list of risks.



Oracles & Information resources

- 1. Missions for testing
- 2. Context: project environment
- 3. Quality criteria
- 4. Product analysis
- 5. Risks
- 6. Oracles & Information resources

Because we only have 99 min we'll skip this for now.



Testing strategies

- 1. Missions for testing
- 2. Context: project environment
- 3. Quality criteria
- 4. Product analysis
- 5. Risks
- 6. Oracles & Information resources
- 7. Testing strategies

Make a test strategy for Casies. Use the information from the previous steps.



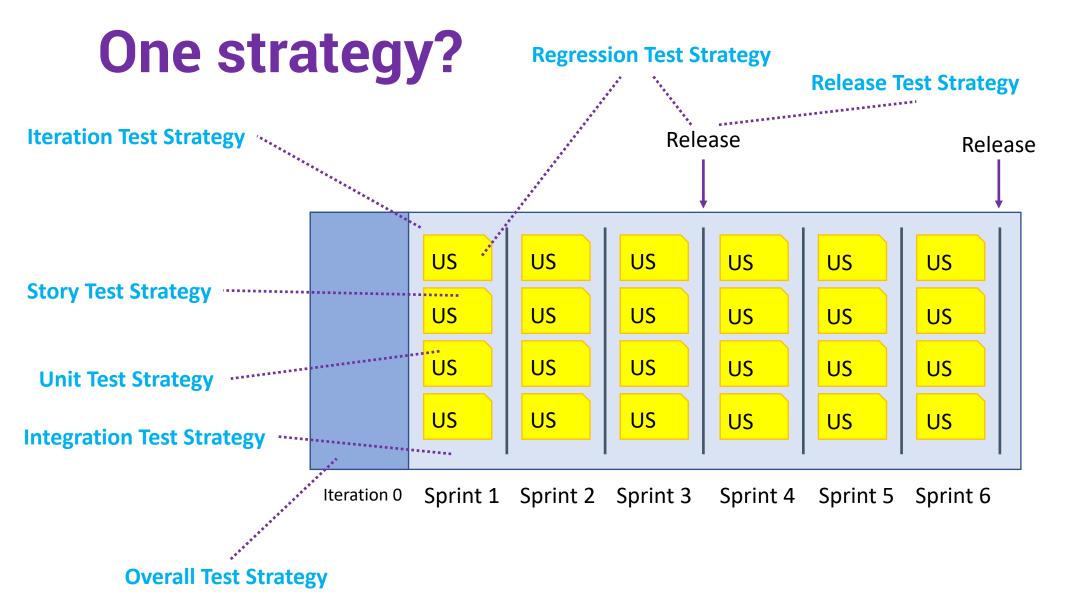
Wrap-up



A good Test Strategy is

- Product-Specific
- Risk-focused
- Mission-focused
- Diversified
- Practical
- Resource effective
- Anchored
- Changing all the time







Comments, feedback, stories or questions??

Thank you!



De Agile Testers

References and more info

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- Heuristic Test Strategy Model https://www.satisfice.com/download/heuristic-test-strategy-model
- Creating a Test Strategy https://www.huibschoots.nl/wordpress/?p=2726
- Ask me anything: Test Strategies (Ministry of Testing) https://club.ministryoftesting.com/t/ask-me-anything-test-strategies/36305
- EuroStar tutorial "Test Strategy Next Level" by Rikard Edgren http://thetesteye.com/presentations/Edgren_Tutorial_TestStrategyNextLevel.pdf
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- Round Earth Test Strategy https://www.satisfice.com/blog/archives/4947
- Risk Storming https://riskstorming.com/testsphere/riskstorming (online Riskstorming: https://riskstormingonline.com/)
- Team Guide to Software Testability http://leanpub.com/softwaretestability
- Heuristics of Software Testability https://www.satisfice.com/download/heuristics-of-software-testability
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