



Testiautomaatikon evoluutio, 4 hirviötä

"Level Up!"

Pelaaja Yksi

- Jani Haapala
- Isä, Aviomies, Opiskelija, Ajattelija, Kehittäjä, Testaaja
- Delivery Lead @ Qentinel
- Fokus ohjelmistokehitysprosessien parantamisessa ja automatisoinnissa
- DevOps ja Lean puolestapuhuja
- 10+ vuotta alalla
- Intohimoinen datan, mittaamisen ja palautteen tutkija



Valitaan Peli

Manuaalitestaaaja

Evoluutio

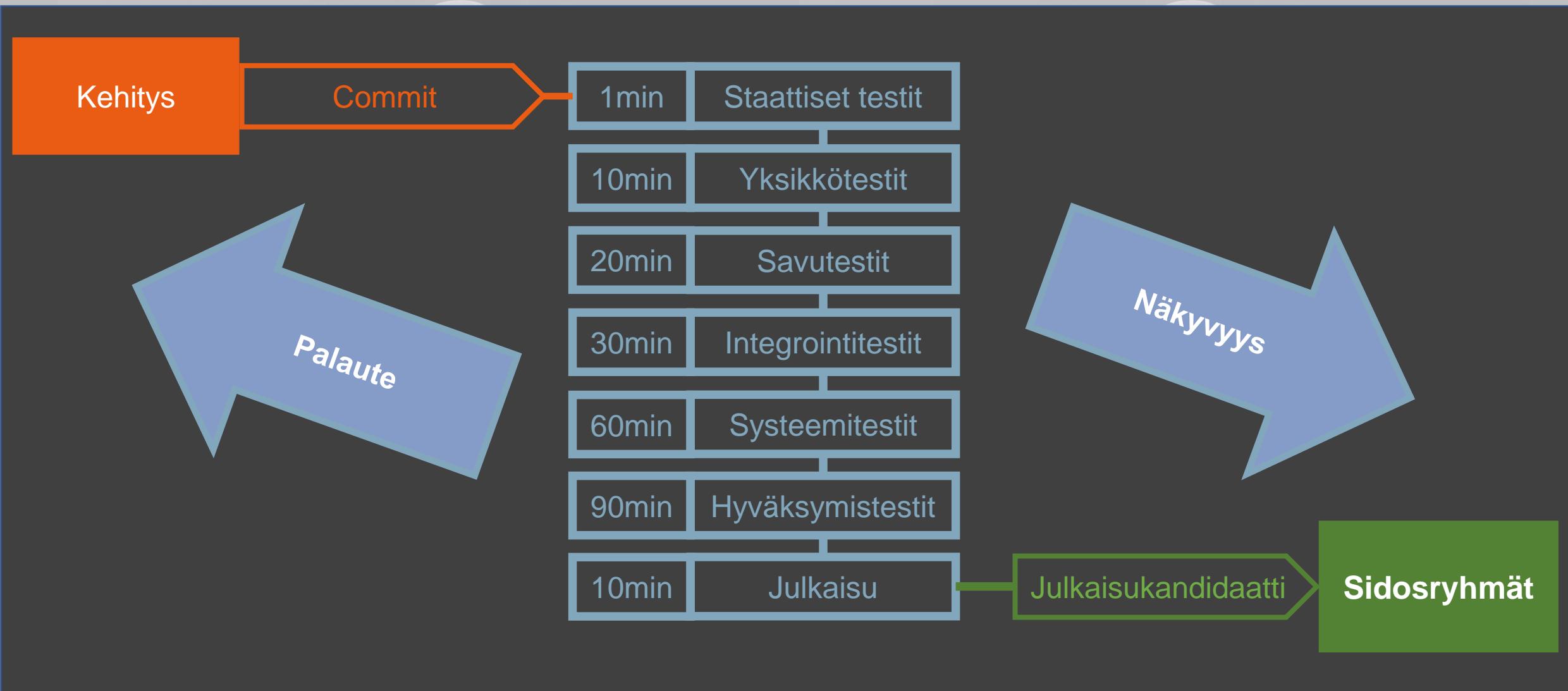
Testiautomaatiokehittäjä

Automaatiotestaaja

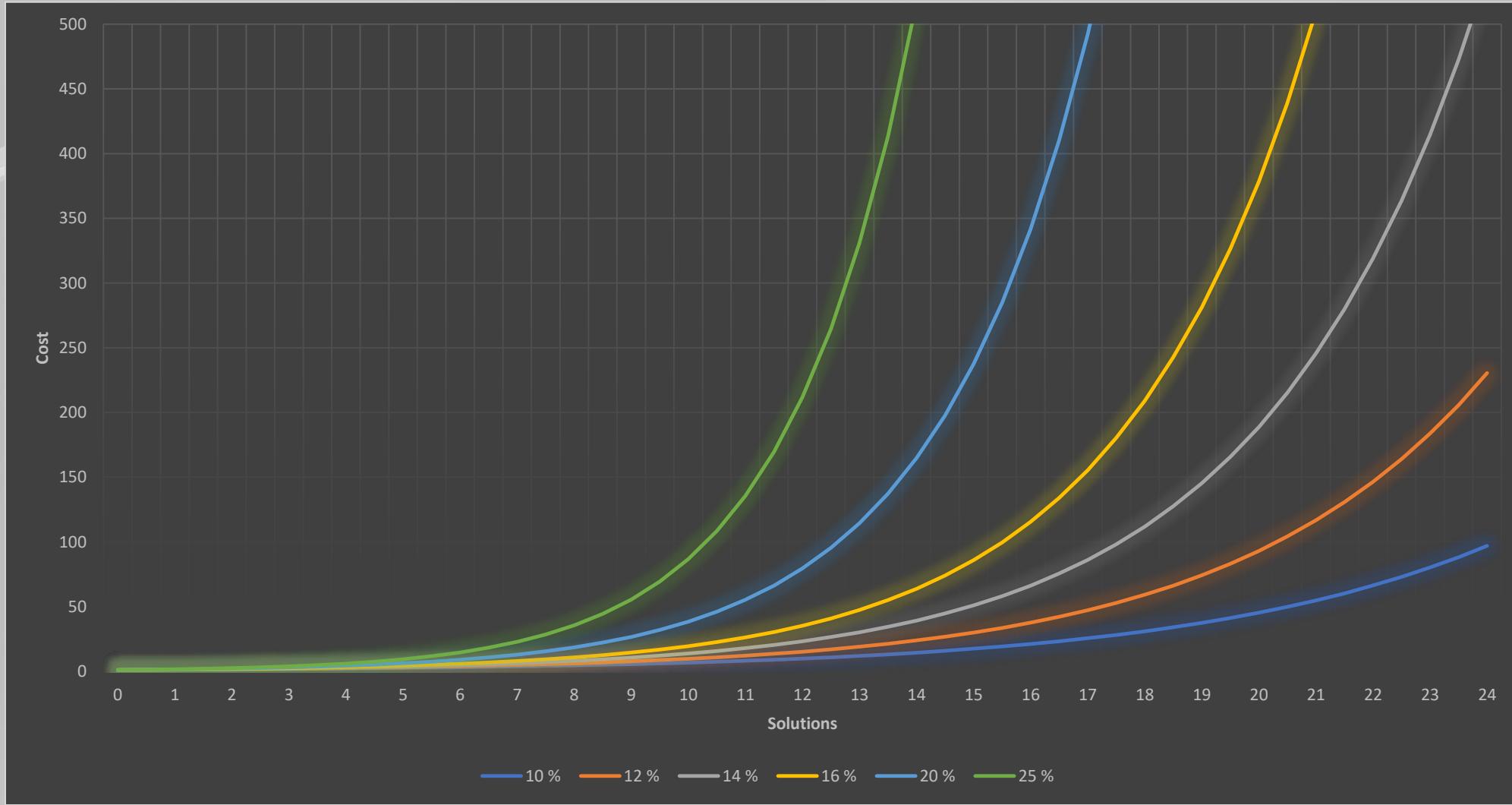
Tutkiva Testaaja

Vaatimusmäärittelyjä

Taso 1: Automaation Hirviö



Haaste



Taso Jatkuu: Hirviön Hämäys: Testit

```
@Test  
public void pageTitleAfterSearchShouldBeginWithDrupal() throws IOException {  
    assertEquals("The page title should equal Google at the start of the test.",  
    "Google", driver.getTitle());  
    WebElement searchField = driver.findElement(By.name("q"));  
    searchField.sendKeys("Drupal!");  
    searchField.submit();  
    assertTrue("The page title should start with the search string after the search.",  
    (new WebDriverWait(driver, 10)).until(new ExpectedCondition<WebElement>() {  
        public Boolean apply(WebDriver d) {  
            return d.getTitle().toLowerCase().startsWith("drupal!");  
        }  
    }));}
```

VAI

Open Page
Insert Text
Click Button
Verify Title Starts With

www.google.com
searchbox
Google-Search
Drupal!

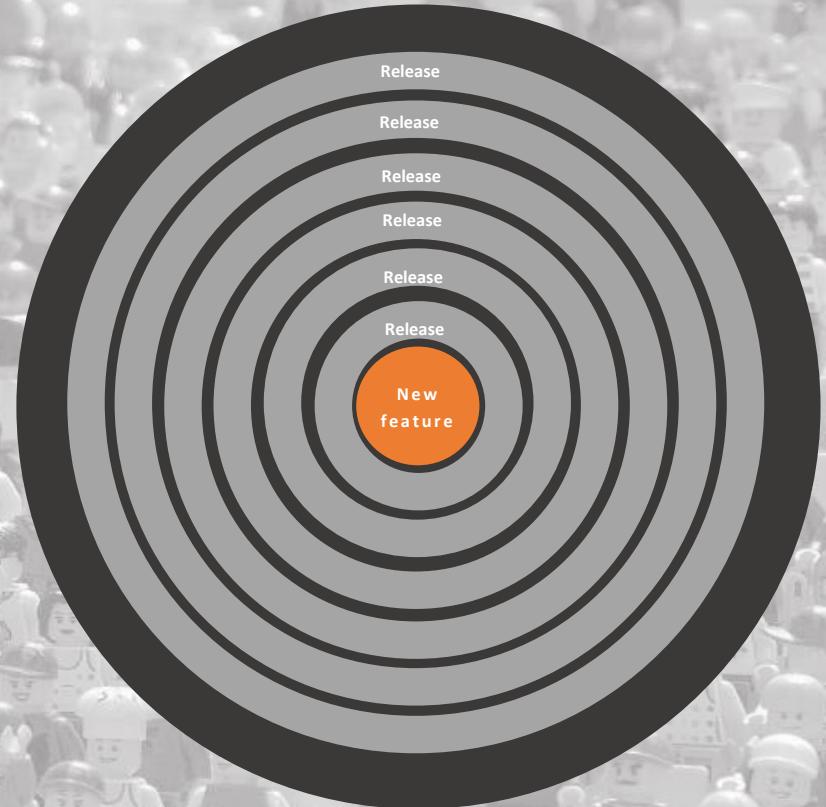
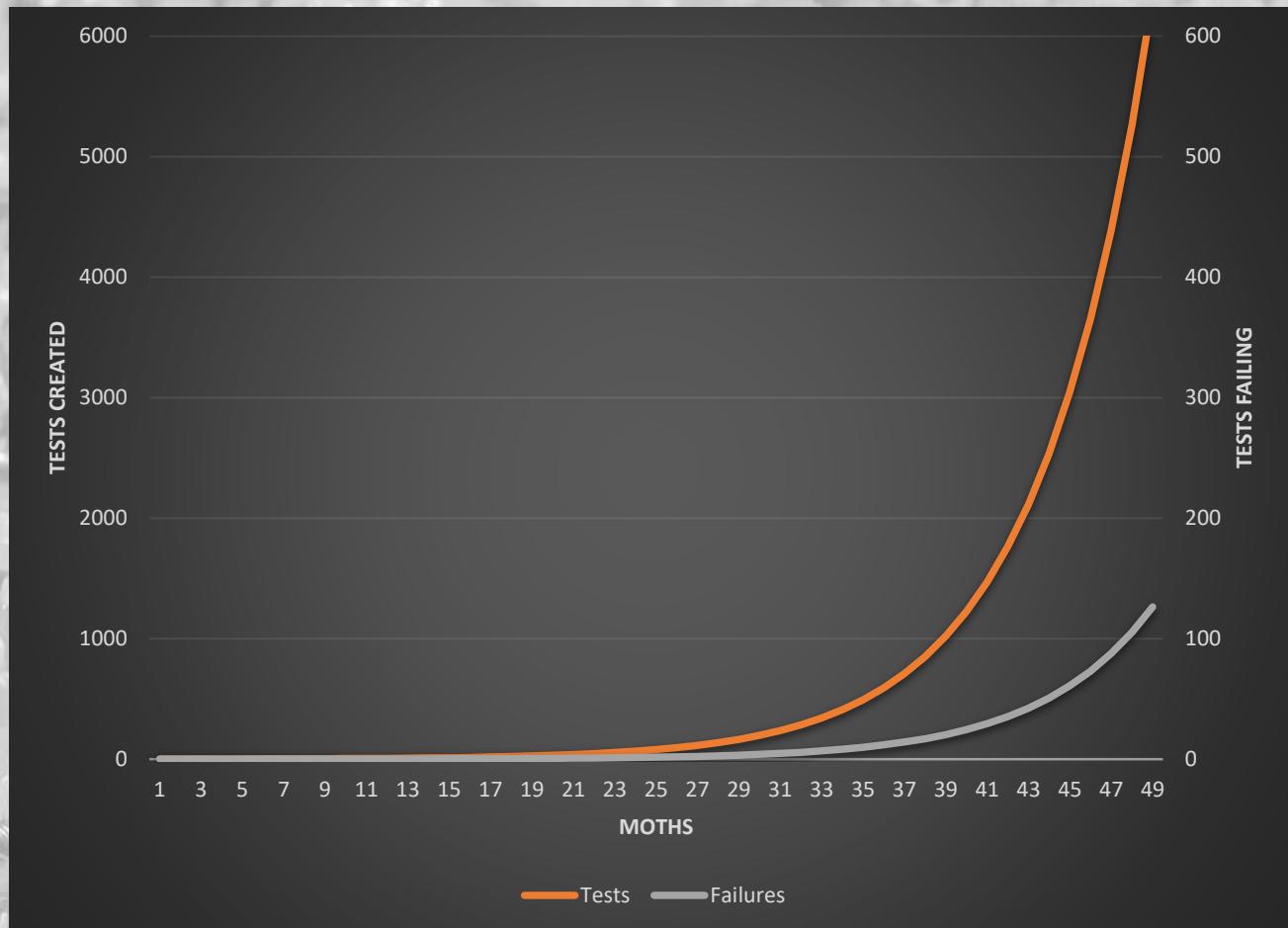
Drupal!

Customer must be able to buy
shoes

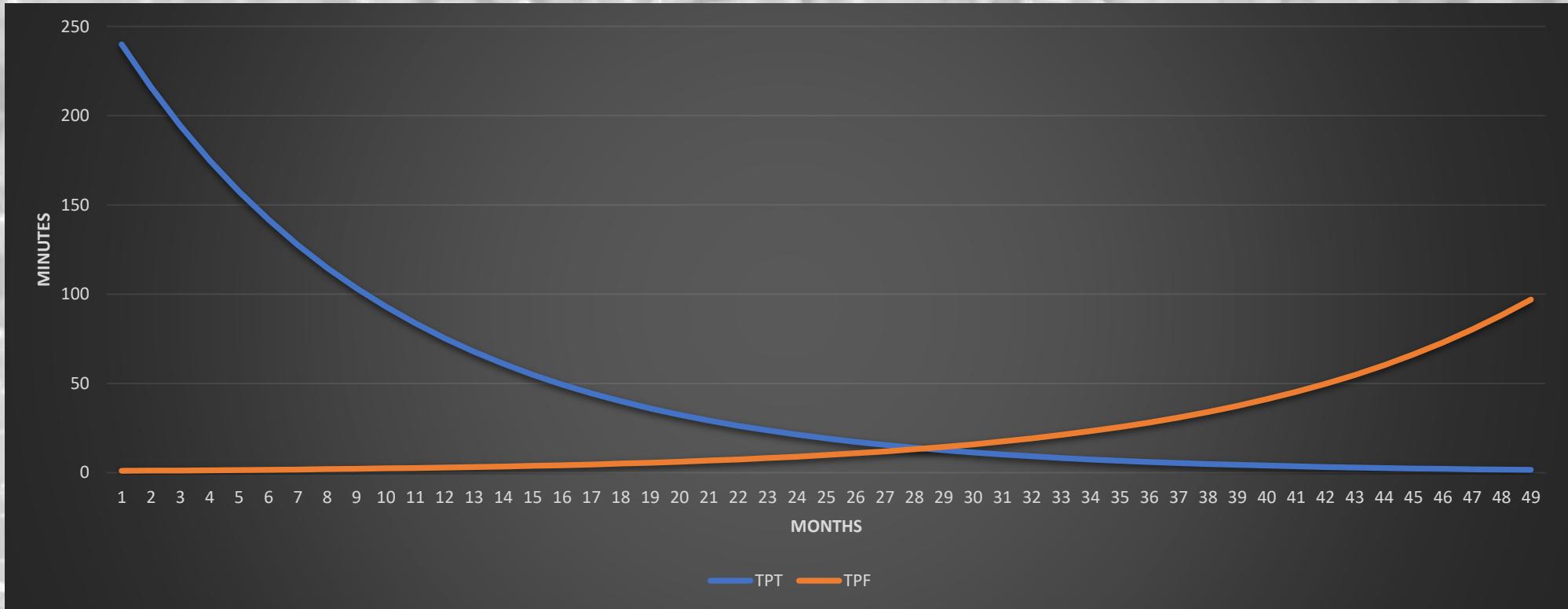
Customer needs to put shoes in
basket and complete payment

With browser xx and url yy
open. Icon zz must be clicked
and then button ii pressed. If
valid information is given into
dd, transaction should be seen
from db xx with query ss.

Taso 2: Massan Hirviö



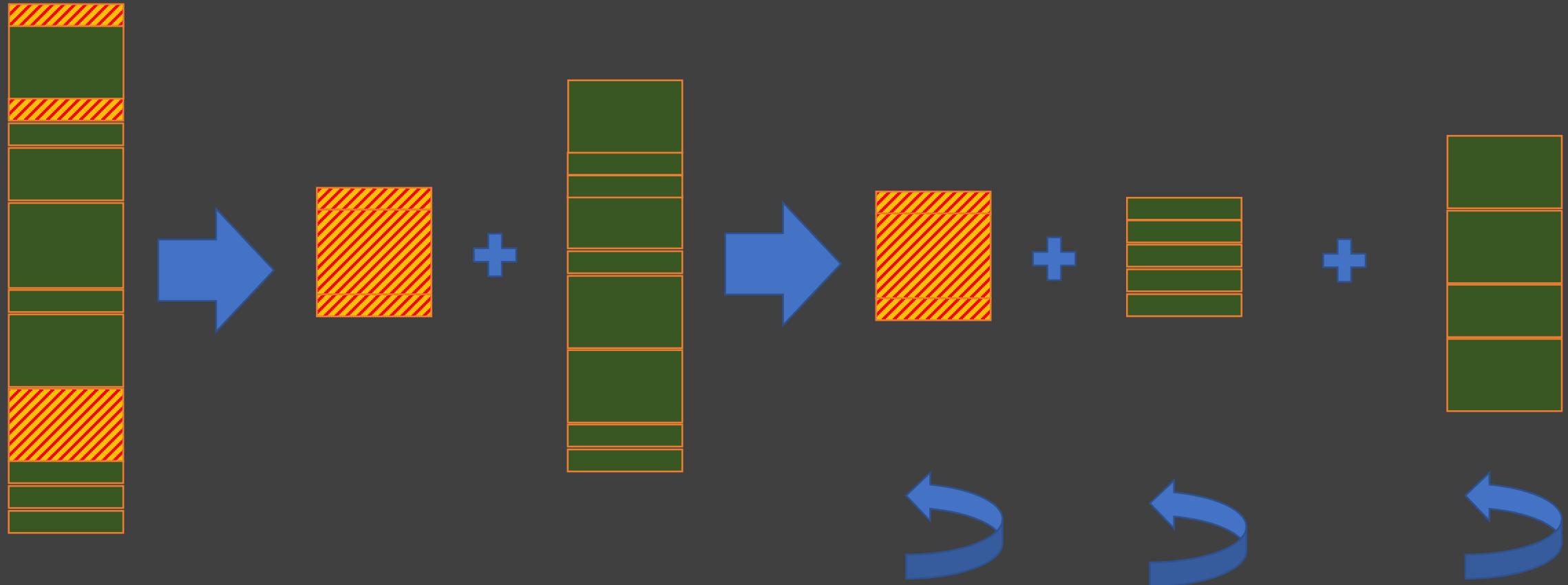
Taso 2: Ongelma Eskaloituu



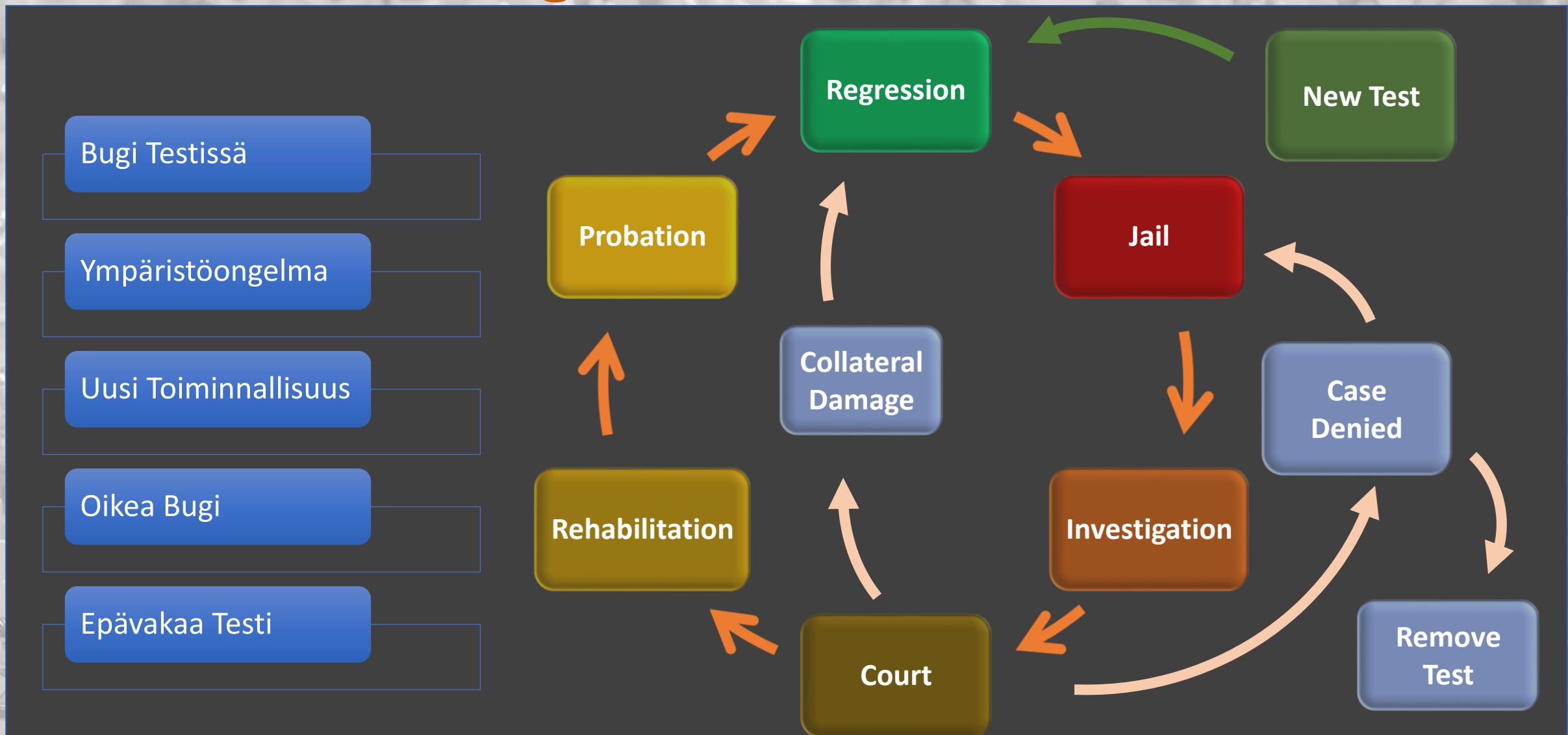
Create 100TC -> 200min -> 3h

Debug 100TC -> 9700min -> 162h -> 20 days

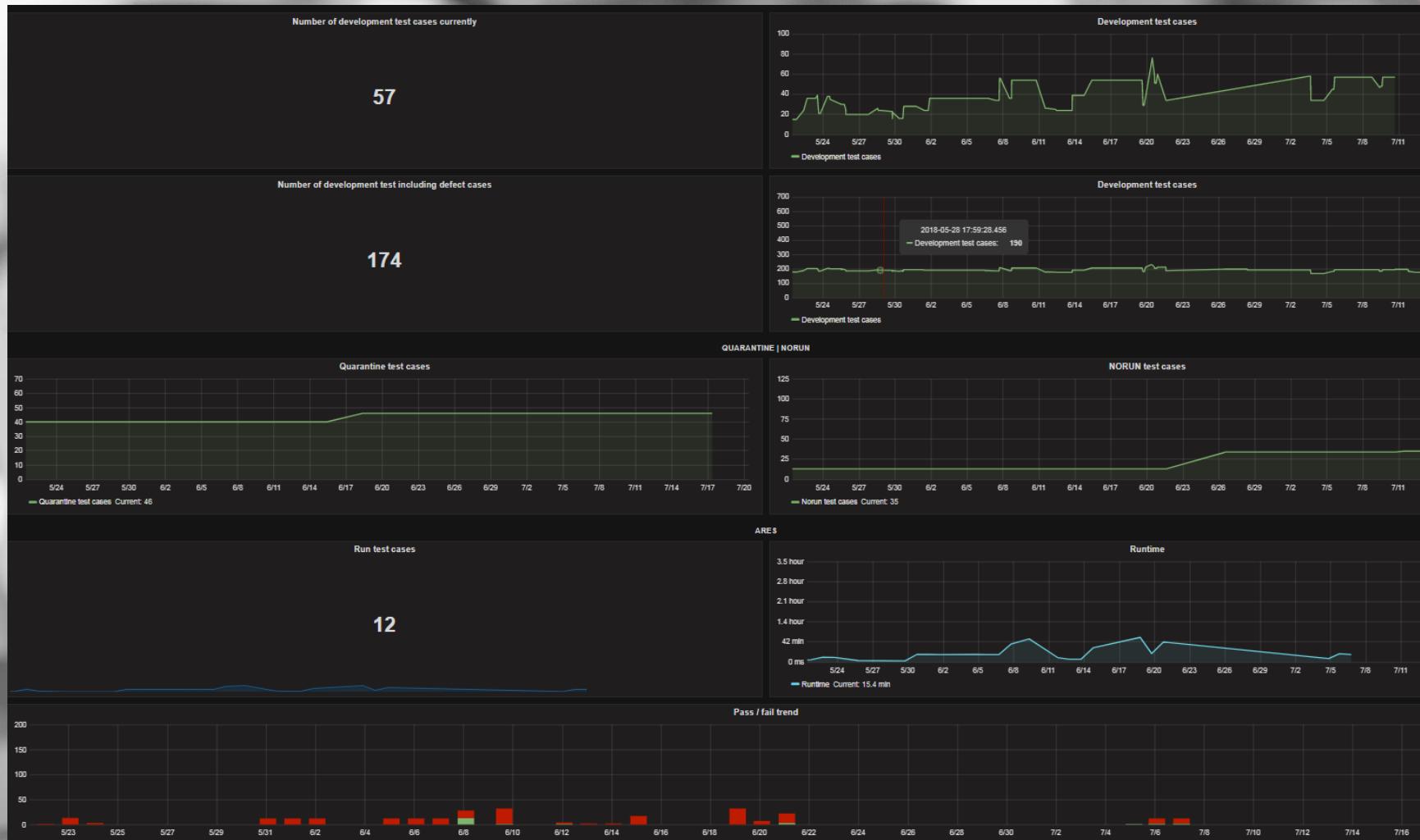
Uusi Ase: “Critical Red”



Uusi Ase: “Jailing tests”



Taso 3: Tarkoitukseen Hirviö



Visualisoinnin Seikkalu: Testhistory

Testhistory2 Teams ▾

PFICT: PFICT_Ultests_Firefox_History

Show execution tree fingerprint for Show tree

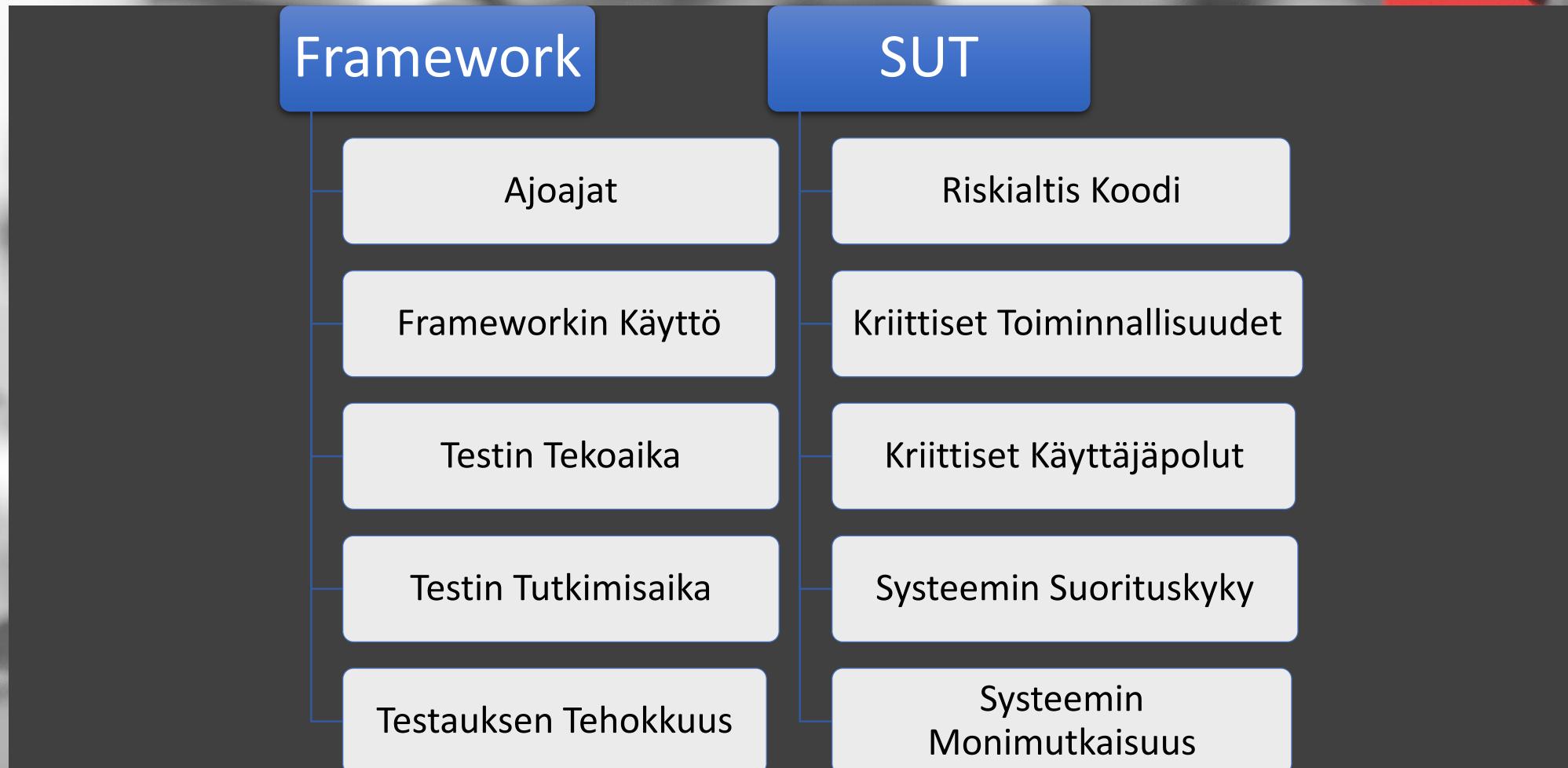
Hide suites Hide testcases Hide stable cases Hide unstable cases Hide critical test cases Hide non-critical test cases

Show tags Show failing keywords Show IDs

Other views ▾ JSON data ▾ Get last ▾

	41	40	39	30	29	28	27	26	25	24	23
Tests -	2886	8a67	e095	f6c2	74bd	ee6a	c2da	f5f0	7062	5931	1805
Tests.Ultests -	6792	0550	6f79	c4ec	563c	1ff1	9cb9	36e8	e777	9546	a34a
Tests.Ultests.03 Search and Create tests -	1be9	a09e	04ba	de8b	a544	4c5e	d3ee	1d44	37b7	a2c3	e734
Site can have multiple sub-items	c34c	012e	9065	7edc	5c25	f6a3	acb7	75a8	c5fd	91dc	1a5f
Tests.Ultests.06 Floorchart tests -	ec98	541d	c38f	e62e	a5b1	8bb9	0869	6f9e	63b2	f485	070e
Create a dop on 1st row	ac5b	57e5	3821	cab3	907a	573b	d363	e964	d41e	3791	18a6
Create a dop on 2nd row	d9fc	24f2	2380	839f	a98c	db23	de3f	2217	dcf5	6612	22f5

Jatkuva Parantaminen



Taso 4: Tulevaisuuden Hirviö...

SELF LEARNING
SYSTEMS?

?

SELF LEARNING
TEST
AUTOMATION?

?

ARTIFICIAL
INTELLIGENCE?

?

ROBOTIC
PROCESS
AUTOMATION?

?

?

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