Exploratory Testing Foundations

Maaret Pyhäjärvi

v. 2.2 (2022-12-14)

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Optimizing the value of testing

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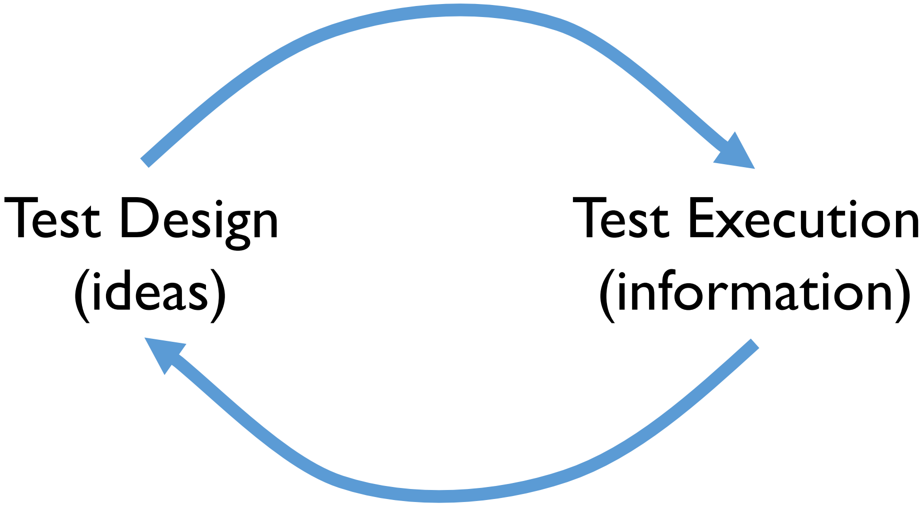
Learning



Test Design
(ideas)

Test Execution
(information)

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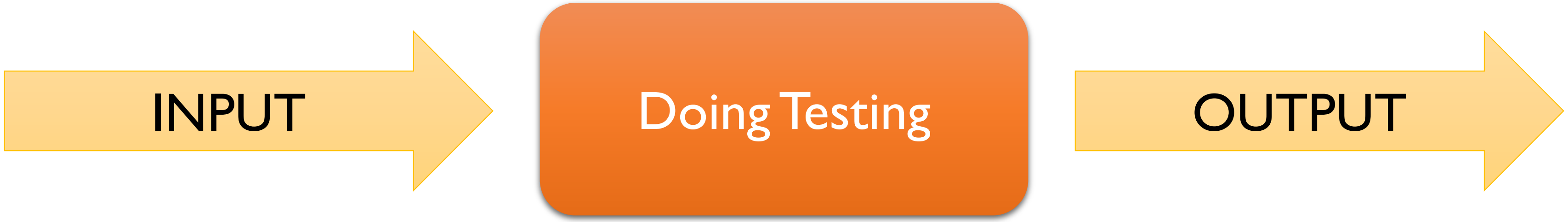
Exploratory Testing the Verb



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INPUT

Doing Testing

OUTPUT

Input

Tester

Domain knowledge

Requirements and specifications

Testing knowledge

Miscellaneous knowledge

INPUT

Doing Testing

OUTPUT

Output

Better tester

Coverage

Information incl. defects and change requests

Documentation: Strategy

Documentation: Tests

Course Outline

Chapter 1: Test target and our options for exploring

Chapter 2: Self-management basics on setting yourself constraints

Chapter 3: The moment of first impression

Chapter 4: Recognizing and learning a domain

Chapter 5: Recognizing functionality

Chapter 6: Recognizing data

Chapter 7: Recognizing application and execution environment

Chapter 8: Documenting in a mindmap

Chapter 9: Robot framework the very basics

Chapter 10: Documenting as skeleton test automation

Chapter 11: Robot framework browser library and CSS selectors on web pages

Chapter 12: Documenting as executable test automation

Chapter 13: Why this is not about Robot Framework

Chapter 14: Use of time

Chapter 15: Coverage

Chapter 16: Test Strategy

Chapter 17: Full results and reproducing from customer feedback

Chapter 18: Closing remarks

Course Outline

Section I: Options for Exploring 1 3

Section II: Control through Choices 2

Section III: Documenting (with Automation)

4-13 Extending with Function, Data, Environment and Domain

Section IV: Use of time and coverage 14-17

Test Target and Our Options for Exploring

Chapter 1

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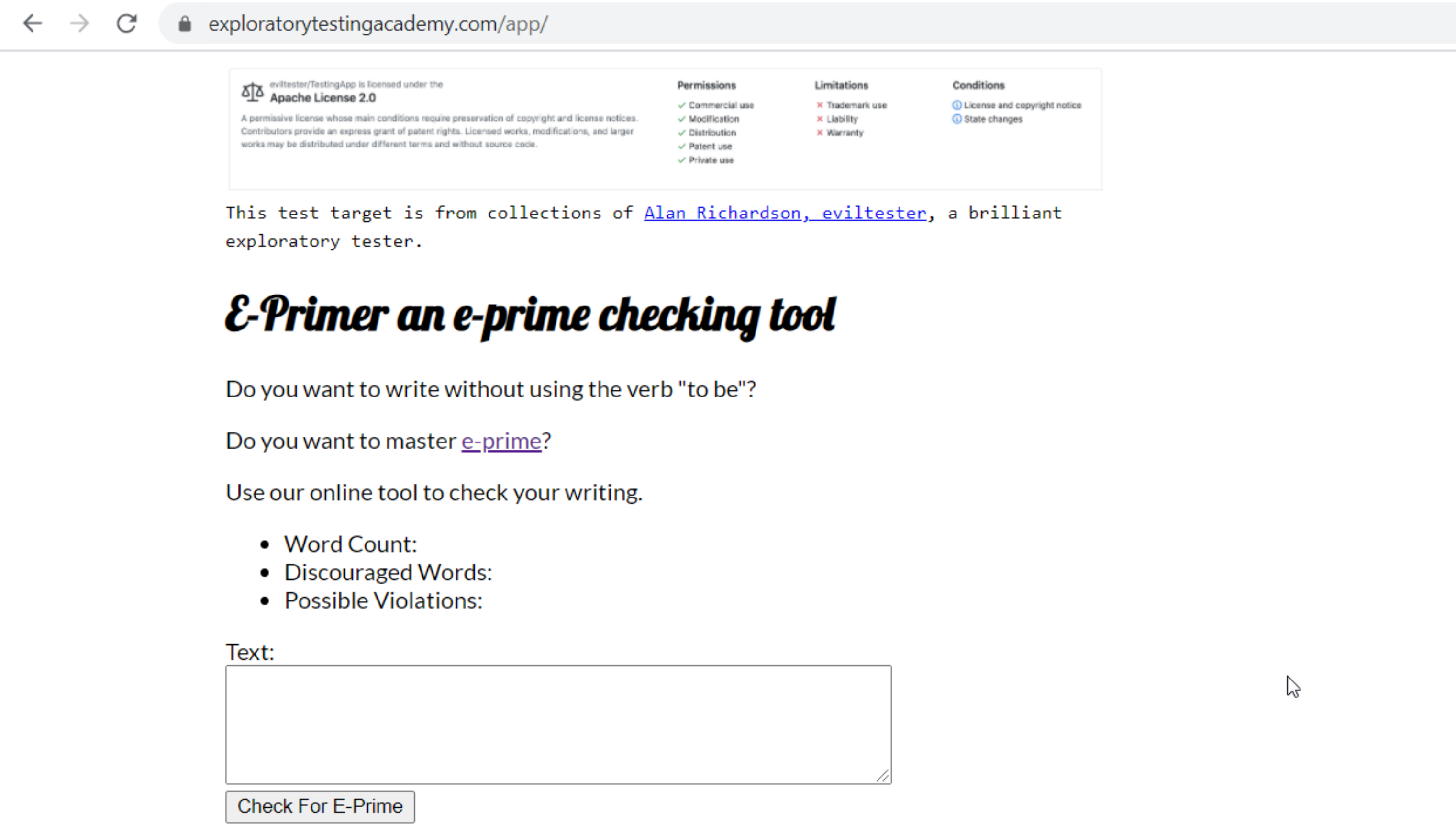

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✓ Modification	✕ Liability	ⓘ State changes
✓ Distribution	✕ Warranty	
✓ Patent use		
✓ Private use		

This test target is from collections of Alan Richardson, eviltester, a brilliant exploratory tester.

E-Primer an e-prime checking tool

Do you want to write without using the verb "to be"?

Do you want to master e-prime?

Use our online tool to check your writing.

- Word Count:
- Discouraged Words:
- Possible Violations:

Text:

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Stop-and-Think: Options for Exploring

What would you do first, and soon after you get started?

List all things that come to your mind about how you could test this. What would you start from? What you would not do?

Options for Exploring

Research the Domain

Use test target *with a constraint*

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Self-management Basics on Setting Yourself Constraints

Chapter 2

Charters

Charter template

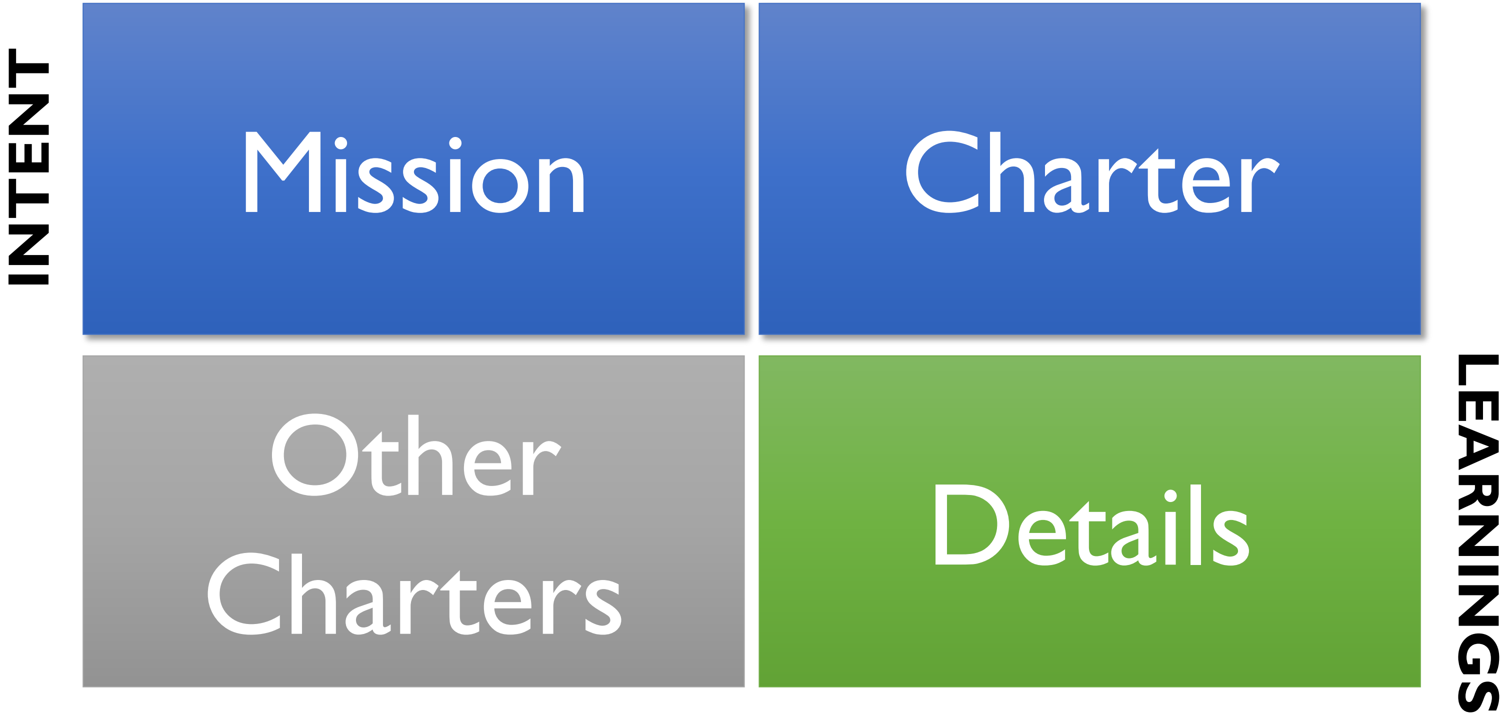
- *target*: where you're exploring
- *resources*: what you're using/how you're exploring
- *information*: what question you want to answer

Elizabeth Zagroba's concise template adapted
from Elizabeth Hendrickson's template

Choose Your Own Constraint

Deliberately excluding perspectives!
Never Be Bored!

Explore with Intent



INTENT

Mission

Charter

Other Charters

Details

LEARNINGS

Stop-and-Think: Charters, Constraints, Intent

You're approaching the moment of first impression. How do you want to frame your moment of first impression?

The Moment of First Impression

Chapter 3

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Options Expire

Capture First Impression

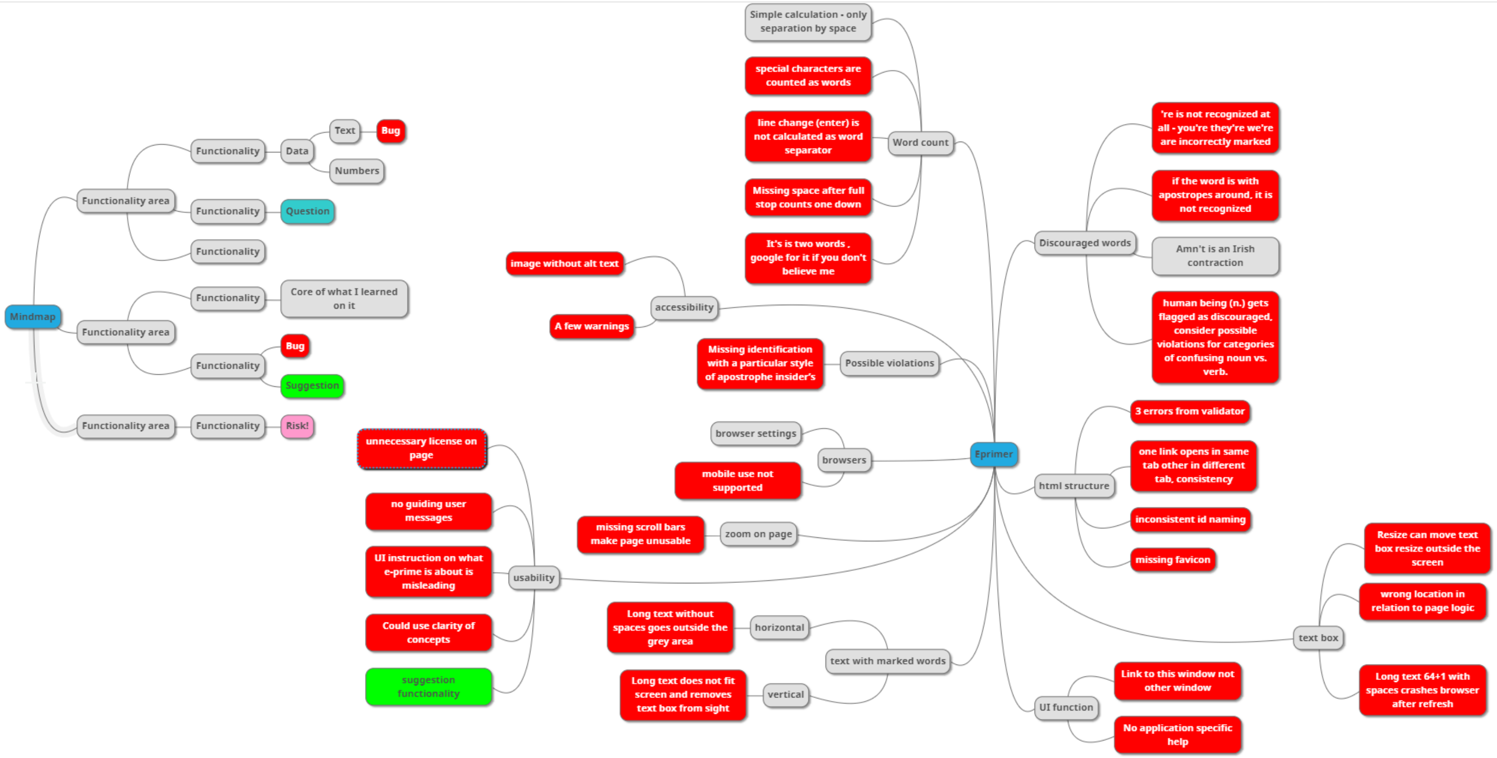
Borrow someone else's First Impression

Timing of feedback changes reaction to it!

Let’s Test

https://www.exploratorytestingacademy.com/app/
https://eviltester.github.io/TestingApp/apps/eprimer/eprimer.html

Example: Test Results, Red is Bug



- Mindmap
  - Functionality area
    - Functionality
      - Data
        - Text
          - Bug
        - Numbers
    - Functionality
      - Question
    - Functionality
  - Functionality area
    - Functionality
      - Core of what I learned on it
    - Functionality
      - Bug
      - Suggestion
  - Functionality area
    - Functionality
      - Risk!

- Eprimer
  - Word count
    - Simple calculation - only separation by space
    - special characters are counted as words
    - line change (enter) is not calculated as word separator
    - Missing space after full stop counts one down
    - It's is two words , google for it if you don't believe me
  - accessibility
    - image without alt text
    - A few warnings
  - Possible violations
    - Missing identification with a particular style of apostrophe insider's
  - browsers
    - browser settings
    - mobile use not supported
  - zoom on page
    - missing scroll bars make page unusable
  - usability
    - unnecessary license on page
    - no guiding user messages
    - UI instruction on what e-prime is about is misleading
    - Could use clarity of concepts
    - suggestion functionality
  - text with marked words
    - horizontal
      - Long text without spaces goes outside the grey area
    - vertical
      - Long text does not fit screen and removes text box from sight
  - Discouraged words
    - 're is not recognized at all - you're they're we're are incorrectly marked
    - if the word is with apostropes around, it is not recognized
    - Amn't is an Irish contraction
    - human being (n.) gets flagged as discouraged, consider possible violations for categories of confusing noun vs. verb.
  - html structure
    - 3 errors from validator
    - one link opens in same tab other in different tab, consistency
    - inconsistent id naming
    - missing favicon
  - text box
    - Resize can move text box resize outside the screen
    - wrong location in relation to page logic
    - Long text 64+1 with spaces crashes browser after refresh
  - UI function
    - Link to this window not other window
    - No application specific help

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Bugs are Conversation Starters

Bug is anything that might bug a user.
You start conversations about defects and change requests.

Recognizing and Learning a Domain

Chapter 4

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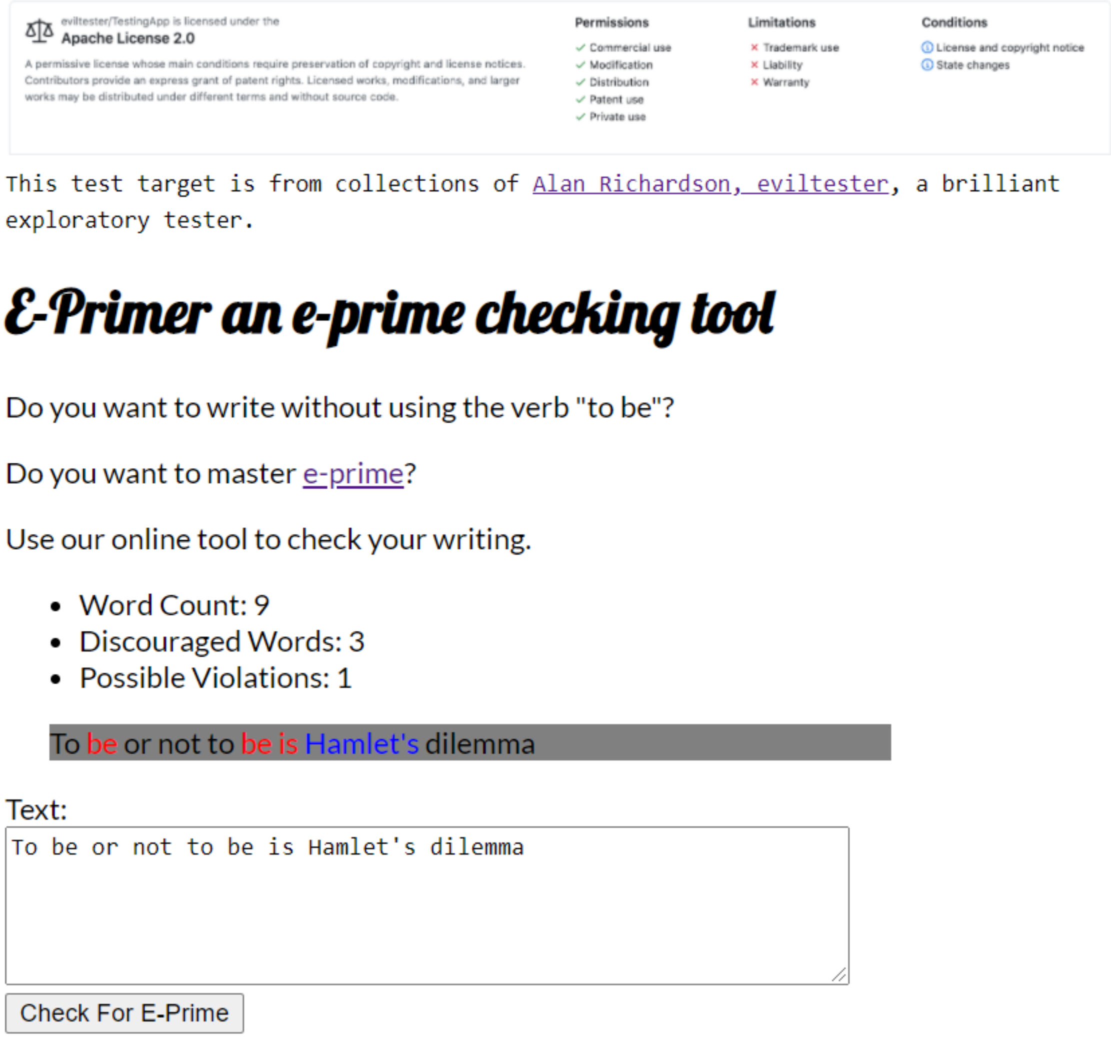
Conference
Reference
Inference



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Do you want to write without using the verb "to be"?

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- Word Count: 9
- Discouraged Words: 3
- Possible Violations: 1

To be or not to be is Hamlet's dilemma

Text:

```
To be or not to be is Hamlet's dilemma
```

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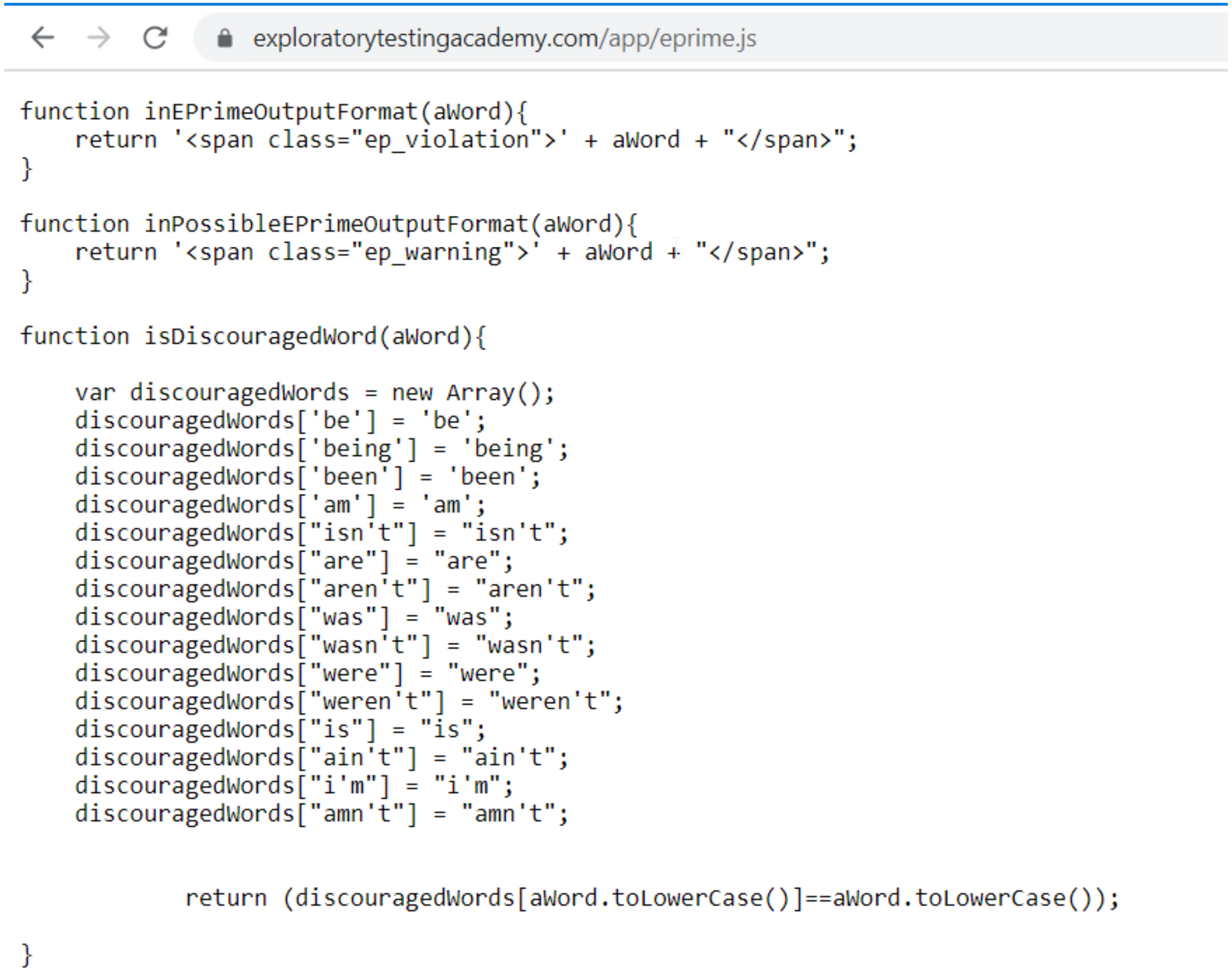

```
function inEPrimeOutputFormat(aWord){
    return '<span class="ep_violation">' + aWord + "</span>";
}

function inPossibleEPrimeOutputFormat(aWord){
    return '<span class="ep_warning">' + aWord + "</span>";
}

function isDiscouragedWord(aWord){

    var discouragedWords = new Array();
    discouragedWords['be'] = 'be';
    discouragedWords['being'] = 'being';
    discouragedWords['been'] = 'been';
    discouragedWords['am'] = 'am';
    discouragedWords["isn't"] = "isn't";
    discouragedWords["are"] = "are";
    discouragedWords["aren't"] = "aren't";
    discouragedWords["was"] = "was";
    discouragedWords["wasn't"] = "wasn't";
    discouragedWords["were"] = "were";
    discouragedWords["weren't"] = "weren't";
    discouragedWords["is"] = "is";
    discouragedWords["ain't"] = "ain't";
    discouragedWords["i'm"] = "i'm";
    discouragedWords["amn't"] = "amn't";


            return (discouragedWords[aWord.toLowerCase()]==aWord.toLowerCase());

}
```

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Let’s Test

https://www.exploratorytestingacademy.com/app/
https://eviltester.github.io/TestingApp/apps/eprimer/eprimer.html

Learning of Domain of E-Primer

Core Idea	Writing English language avoiding verb "be" in all its forms
Why?	Someone claims it had benefits, intellectual challenge
Examples	Used in sentences Listed examples
Sample texts	The Bible!

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Recognizing Functionality

Chapter 5

Naming of Function

Functions in Code
Expected Features
Visible Features

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Let’s Test

https://www.exploratorytestingacademy.com/app/
https://eviltester.github.io/TestingApp/apps/eprimer/eprimer.html

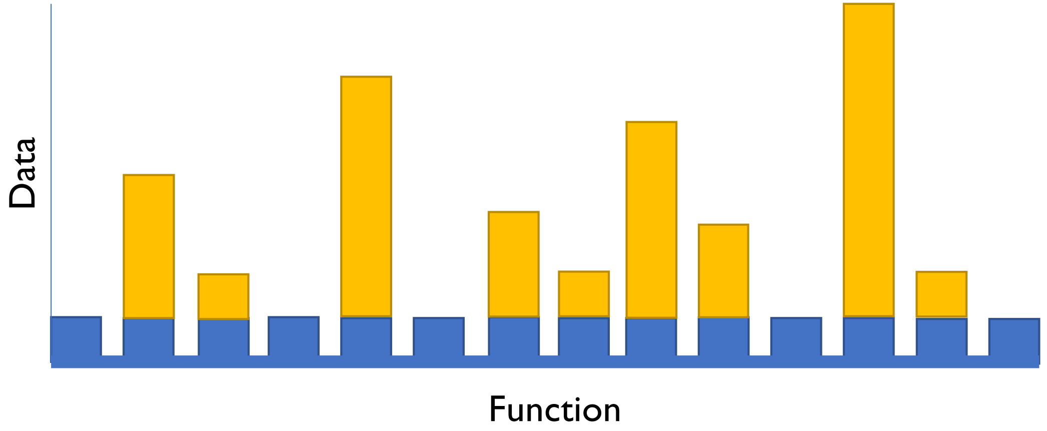
Learning of Function of E-Primer

Input	Text field and button
Output	Three numbers, text area
Containers	Resizable text field, resizable browser window, page
Presentation	Fonts, text and element sizes, order of functions
Browser	Settings, zoom
Algorithm	Recognizing eprime

Recognizing Data

Chapter 6

Data or Variables



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Versatile Data

Lifecycle of Data: Create, Read, Update, Delete
Known problematic inputs: GitHub Naughty Strings

https://github.com/minimaxir/big-list-of-naughty-strings/blob/master/blns.txt

Let’s Test

https://www.exploratorytestingacademy.com/app/
https://eviltester.github.io/TestingApp/apps/eprimer/eprimer.html

Learning of Data of E-Primer

Word delimiter	Space, wordcount breaks with characters and line change
Types of apostrophes	Typesetter / typewriter
Long text	Copied / tool generated
Valid eprime	Recognizing right as right
Eprime violations	Recognizing wrong as wrong

Recognizing Application and Execution Environment

Chapter 7

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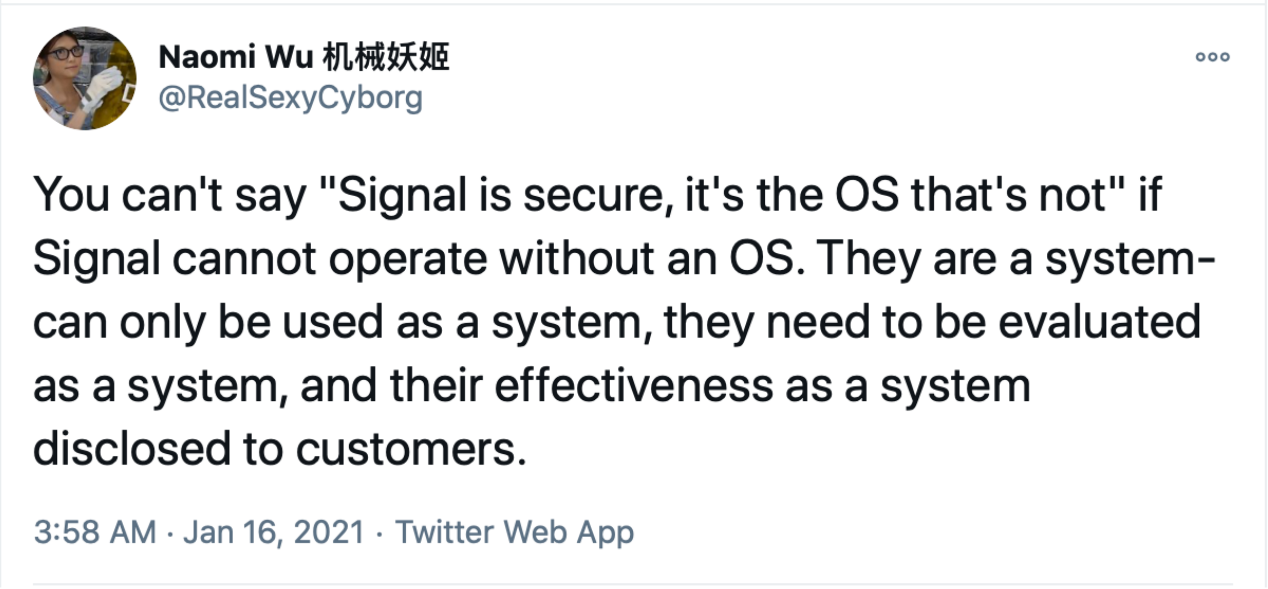
What You Coded is a Bad Constraint



Naomi Wu 机械妖姬
@RealSexyCyborg

You can't say "Signal is secure, it's the OS that's not" if Signal cannot operate without an OS. They are a system- can only be used as a system, they need to be evaluated as a system, and their effectiveness as a system disclosed to customers.

3:58 AM · Jan 16, 2021 · Twitter Web App

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Execution Environment

Different browsers: web and mobile

Browser functionality and add-ons

HTML standard compatibility

Accessibility standard compatibility

Let’s Test

https://www.exploratorytestingacademy.com/app/
https://eviltester.github.io/TestingApp/apps/eprimer/eprimer.html

Learning of Application and Execution Environment of E-Primer

Browser	Chrome, Brave, …
Screen size	Web, Mobile
Browser Settings	Zoom, Security, …
Add-ons	BugMagnet
Validators	HTML, Accessibility, …

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Documenting in a Mindmap

Chapter 8

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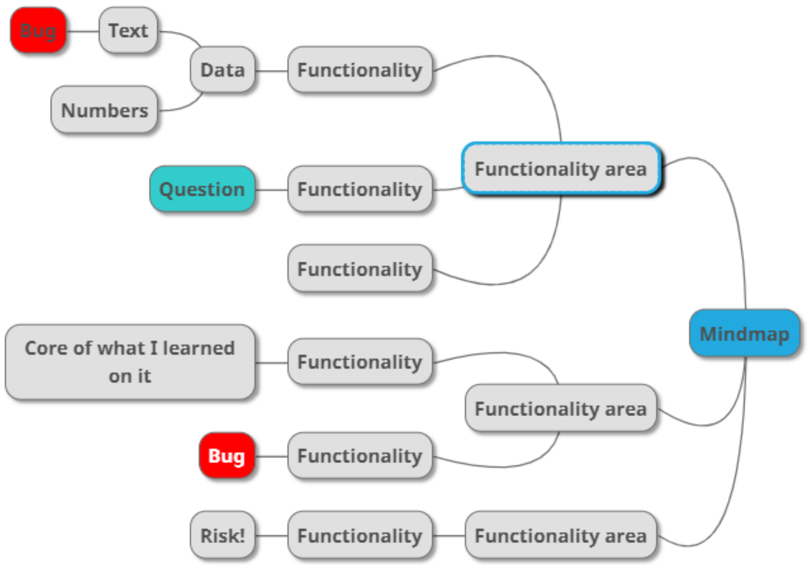
Mindmap



Bug

Text

Data

Numbers

Functionality

Question

Functionality

Functionality area

Functionality

Mindmap

Core of what I learned on it

Functionality

Functionality area

Bug

Functionality

Risk!

Functionality

Functionality area

Bug Reports

Cem Kaner. Bug Reporting Heuristic.

R eplicate
I solate
M azimize
G eneralize
E xternalize
N eutral tone

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Let’s Test

https://www.exploratorytestingacademy.com/app/
https://eviltester.github.io/TestingApp/apps/eprimer/eprimer.html

Mindmapping as Future Reference

Notetaking in the moment

Restructure as you learn

Documentation for the future

General purpose mindmaps

Robot Framework the Very Basics

Chapter 9

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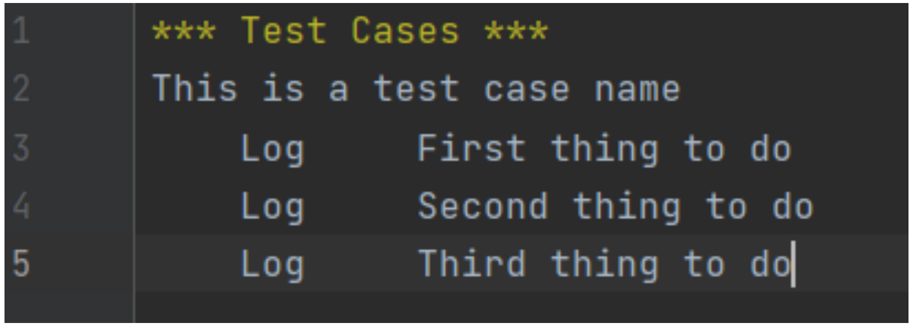
Robot Framework

Custom-made language
Built-in reporting
Ecosystem of keyword libraries

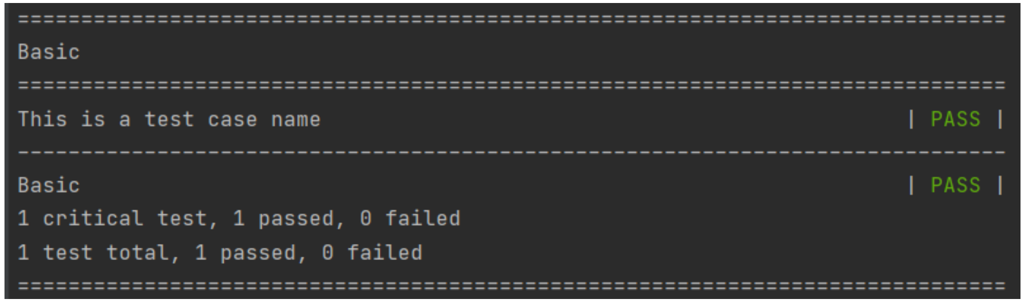
Documenting as Skeleton Test Automation

Chapter 10

Log



```
*** Test Cases ***
This is a test case name
    Log      First thing to do
    Log      Second thing to do
    Log      Third thing to do
```



```
==============================================================================
Basic
==============================================================================
This is a test case name                                              | PASS |
------------------------------------------------------------------------------
Basic                                                                 | PASS |
1 critical test, 1 passed, 0 failed
1 test total, 1 passed, 0 failed
==============================================================================
```

Let’s Test

https://www.exploratorytestingacademy.com/app/
https://eviltester.github.io/TestingApp/apps/eprimer/eprimer.html

Skeleton Test Automation

Stepwise Test Cases as Automation Placeholders

Like test cases but version controlled as code

Handoff to a task that is decomposing testing differently

Robot Framework Browser Library and css selectors on Web Page

Chapter 11

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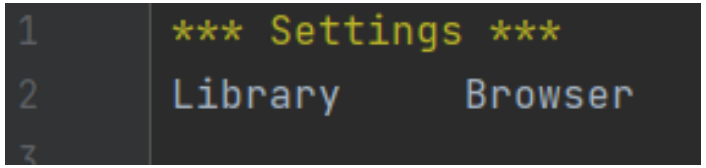
Browser Library

Playwright inside

Speed – Reliability – Visibility

Automatic waits



```
*** Settings ***
Library         Browser
```

css selectors

css=

#id

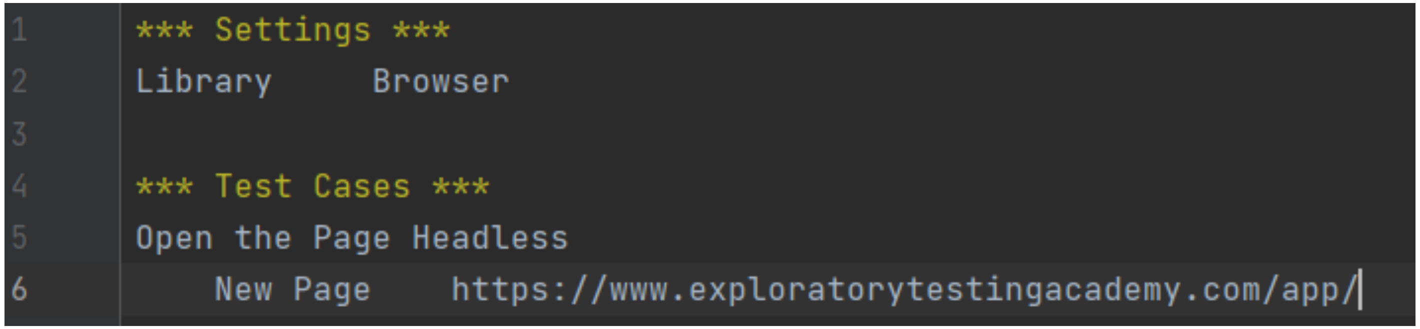
.class

tag

[attribute='value']

[part_of_attribute_value_contains*='value']

Keywords



```
*** Settings ***
Library     Browser

*** Test Cases ***
Open the Page Headless
    New Page    https://www.exploratorytestingacademy.com/app/
```

https://marketsquare.github.io/robotframework-browser/Browser.html

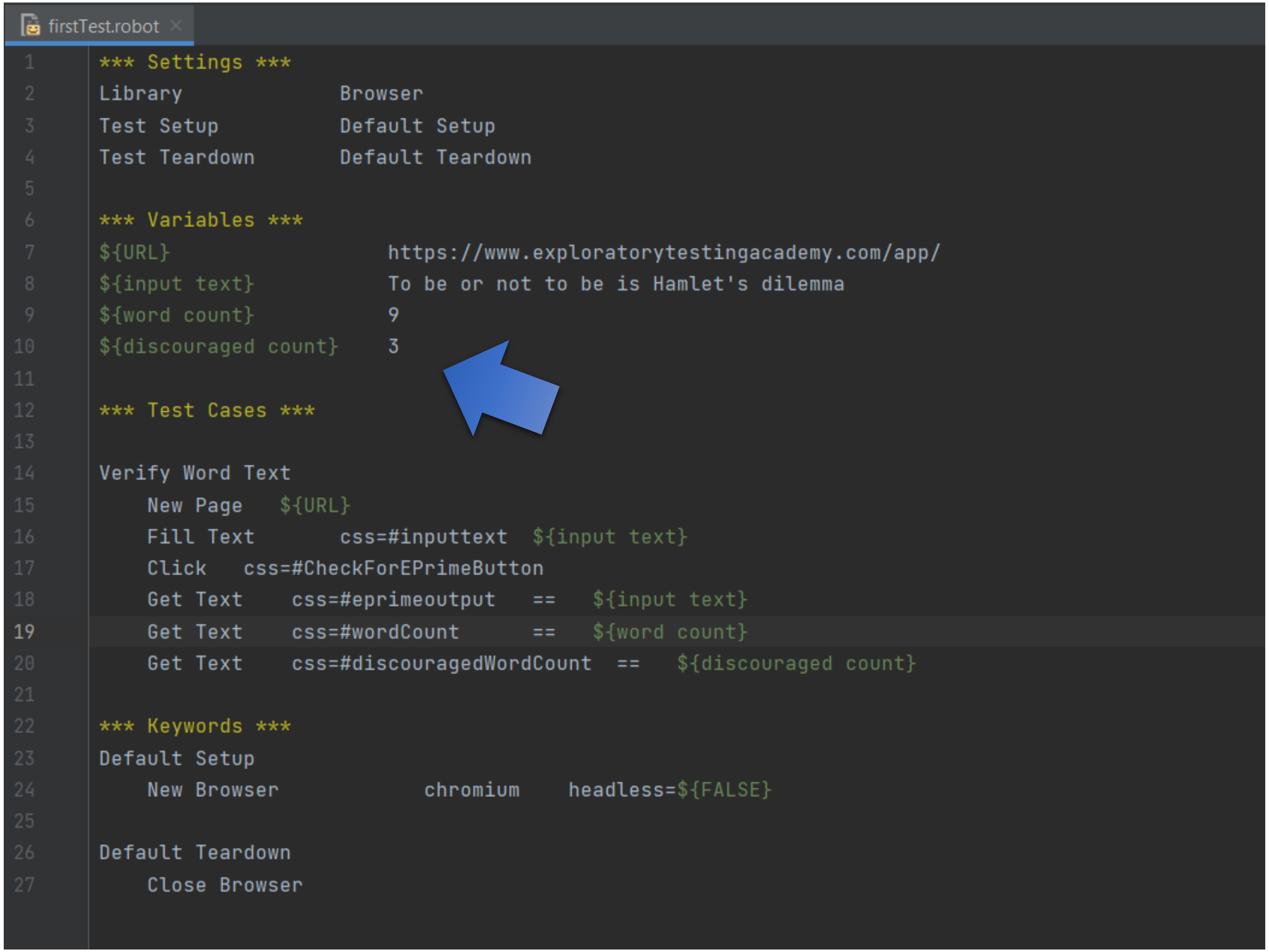
Documenting as Executable Test Automation

Chapter 12

Let’s Test

https://www.exploratorytestingacademy.com/app/

https://eviltester.github.io/TestingApp/apps/eprimer/eprimer.html



```
*** Settings ***
Library             Browser
Test Setup          Default Setup
Test Teardown       Default Teardown

*** Variables ***
${URL}                  https://www.exploratorytestingacademy.com/app/
${input text}           To be or not to be is Hamlet's dilemma
${word count}           9
${discouraged count}    3

*** Test Cases ***

Verify Word Text
    New Page    ${URL}
    Fill Text       css=#inputtext  ${input text}
    Click   css=#CheckForEPrimeButton
    Get Text    css=#eprimeoutput   ==    ${input text}
    Get Text    css=#wordCount      ==    ${word count}
    Get Text    css=#discouragedWordCount  ==    ${discouraged count}

*** Keywords ***
Default Setup
    New Browser            chromium    headless=${FALSE}

Default Teardown
    Close Browser
```

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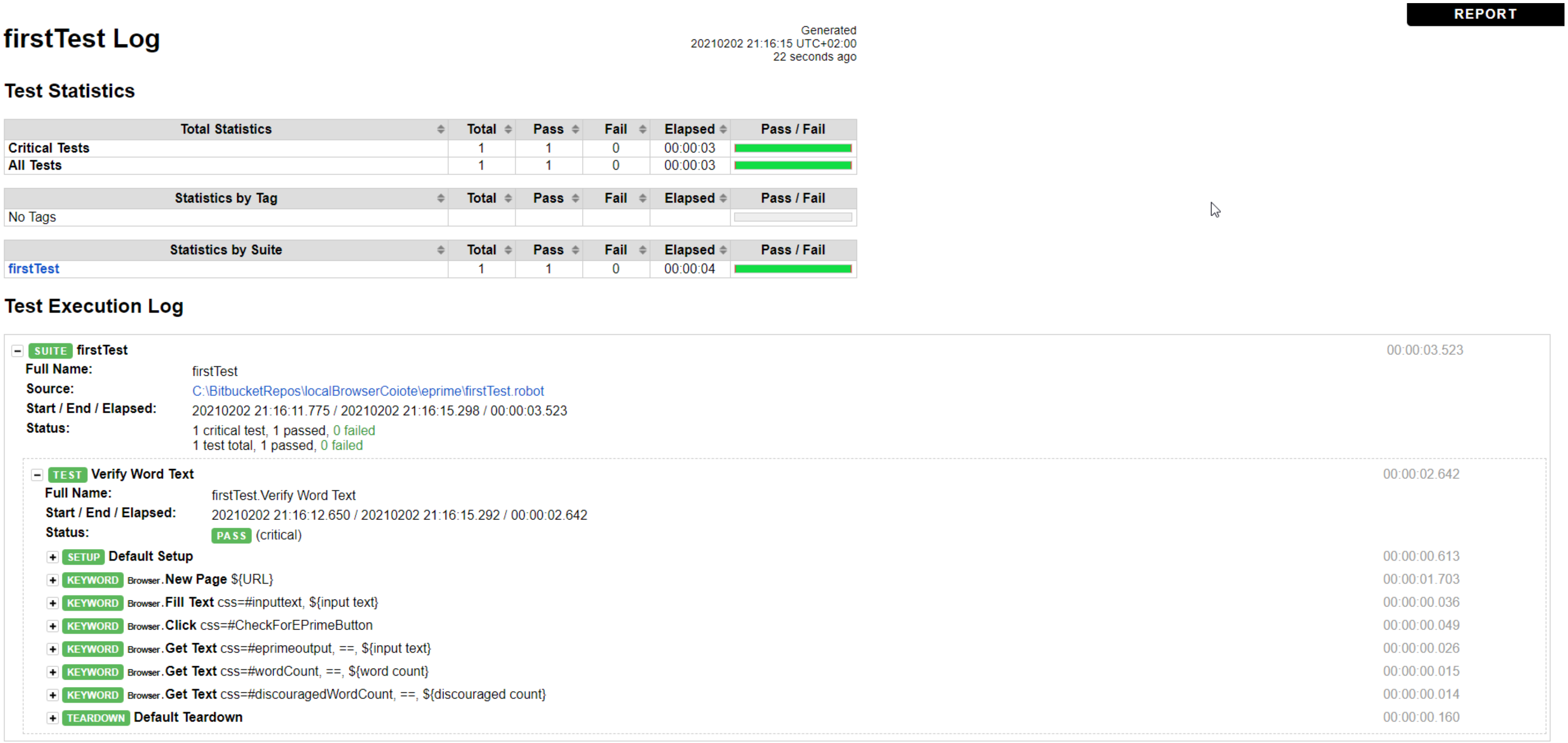

REPORT

firstTest Log

Generated
20210202 21:16:15 UTC+02:00
22 seconds ago

Test Statistics

Total Statistics	Total	Pass	Fail	Elapsed	Pass / Fail
Critical Tests	1	1	0	00:00:03	🟩
All Tests	1	1	0	00:00:03	🟩

Statistics by Tag	Total	Pass	Fail	Elapsed	Pass / Fail
No Tags					

Statistics by Suite	Total	Pass	Fail	Elapsed	Pass / Fail
firstTest	1	1	0	00:00:04	🟩

Test Execution Log

− SUITE **firstTest** 00:00:03.523

Full Name: firstTest
Source: C:\BitbucketRepos\localBrowserCoiote\eprime\firstTest.robot
Start / End / Elapsed: 20210202 21:16:11.775 / 20210202 21:16:15.298 / 00:00:03.523
Status: 1 critical test, 1 passed, 0 failed
1 test total, 1 passed, 0 failed

− TEST **Verify Word Text** 00:00:02.642

Full Name: firstTest.Verify Word Text
Start / End / Elapsed: 20210202 21:16:12.650 / 20210202 21:16:15.292 / 00:00:02.642
Status: PASS (critical)

+ SETUP **Default Setup** 00:00:00.613
+ KEYWORD Browser.**New Page** ${URL} 00:00:01.703
+ KEYWORD Browser.**Fill Text** css=#inputtext, ${input text} 00:00:00.036
+ KEYWORD Browser.**Click** css=#CheckForEPrimeButton 00:00:00.049
+ KEYWORD Browser.**Get Text** css=#eprimeoutput, ==, ${input text} 00:00:00.026
+ KEYWORD Browser.**Get Text** css=#wordCount, ==, ${word count} 00:00:00.015
+ KEYWORD Browser.**Get Text** css=#discouragedWordCount, ==, ${discouraged count} 00:00:00.014
+ TEARDOWN **Default Teardown** 00:00:00.160

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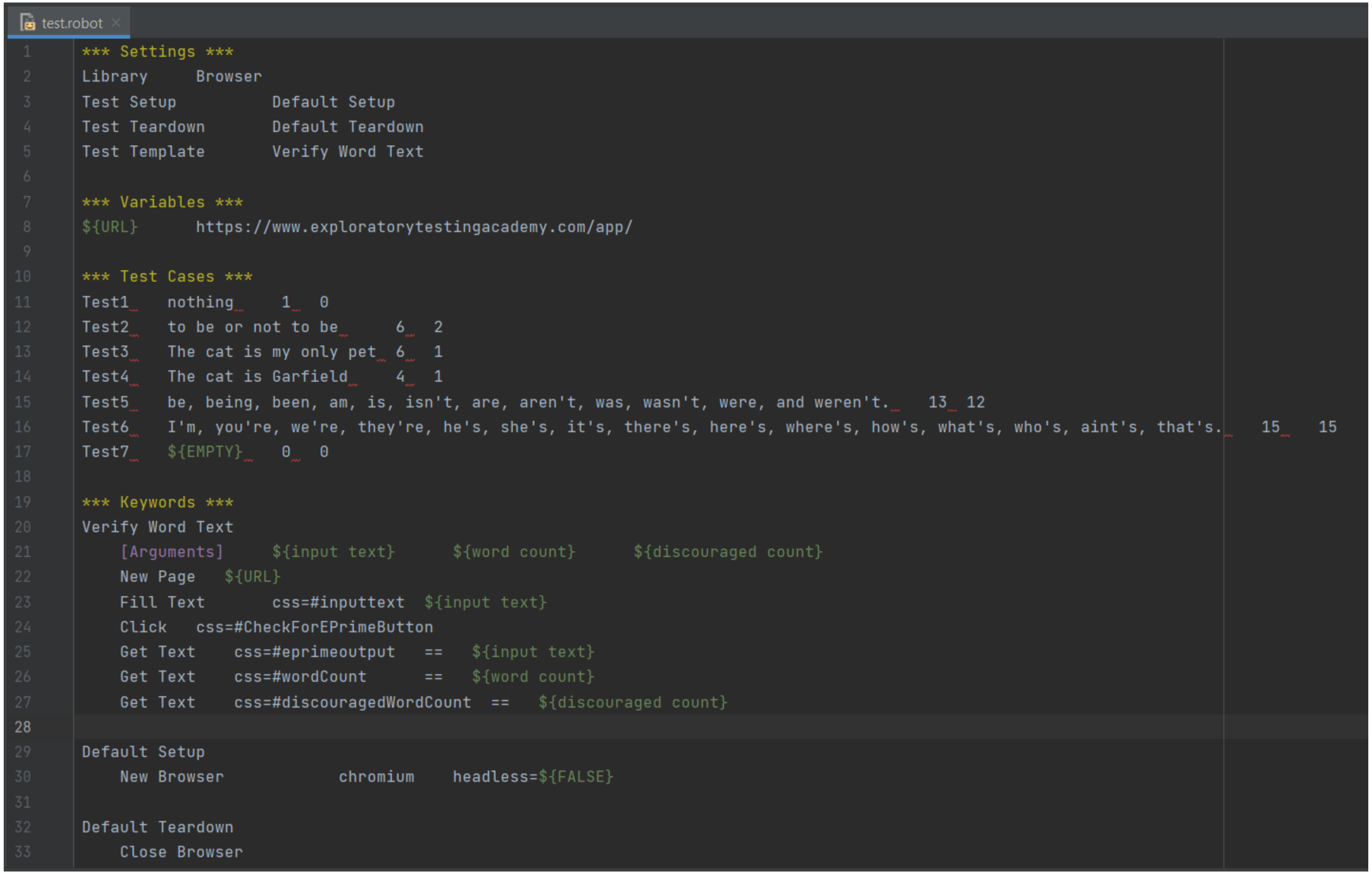

```
*** Settings ***
Library     Browser
Test Setup          Default Setup
Test Teardown       Default Teardown
Test Template       Verify Word Text

*** Variables ***
${URL}      https://www.exploratorytestingacademy.com/app/

*** Test Cases ***
Test1    nothing     1   0
Test2    to be or not to be      6   2
Test3    The cat is my only pet  6   1
Test4    The cat is Garfield     4   1
Test5    be, being, been, am, is, isn't, are, aren't, was, wasn't, were, and weren't.    13  12
Test6    I'm, you're, we're, they're, he's, she's, it's, there's, here's, where's, how's, what's, who's, aint's, that's.    15    15
Test7    ${EMPTY}    0   0

*** Keywords ***
Verify Word Text
    [Arguments]     ${input text}      ${word count}      ${discouraged count}
    New Page   ${URL}
    Fill Text       css=#inputtext  ${input text}
    Click   css=#CheckForEPrimeButton
    Get Text    css=#eprimeoutput   ==   ${input text}
    Get Text    css=#wordCount      ==   ${word count}
    Get Text    css=#discouragedWordCount  ==   ${discouraged count}

Default Setup
    New Browser            chromium    headless=${FALSE}

Default Teardown
    Close Browser
```

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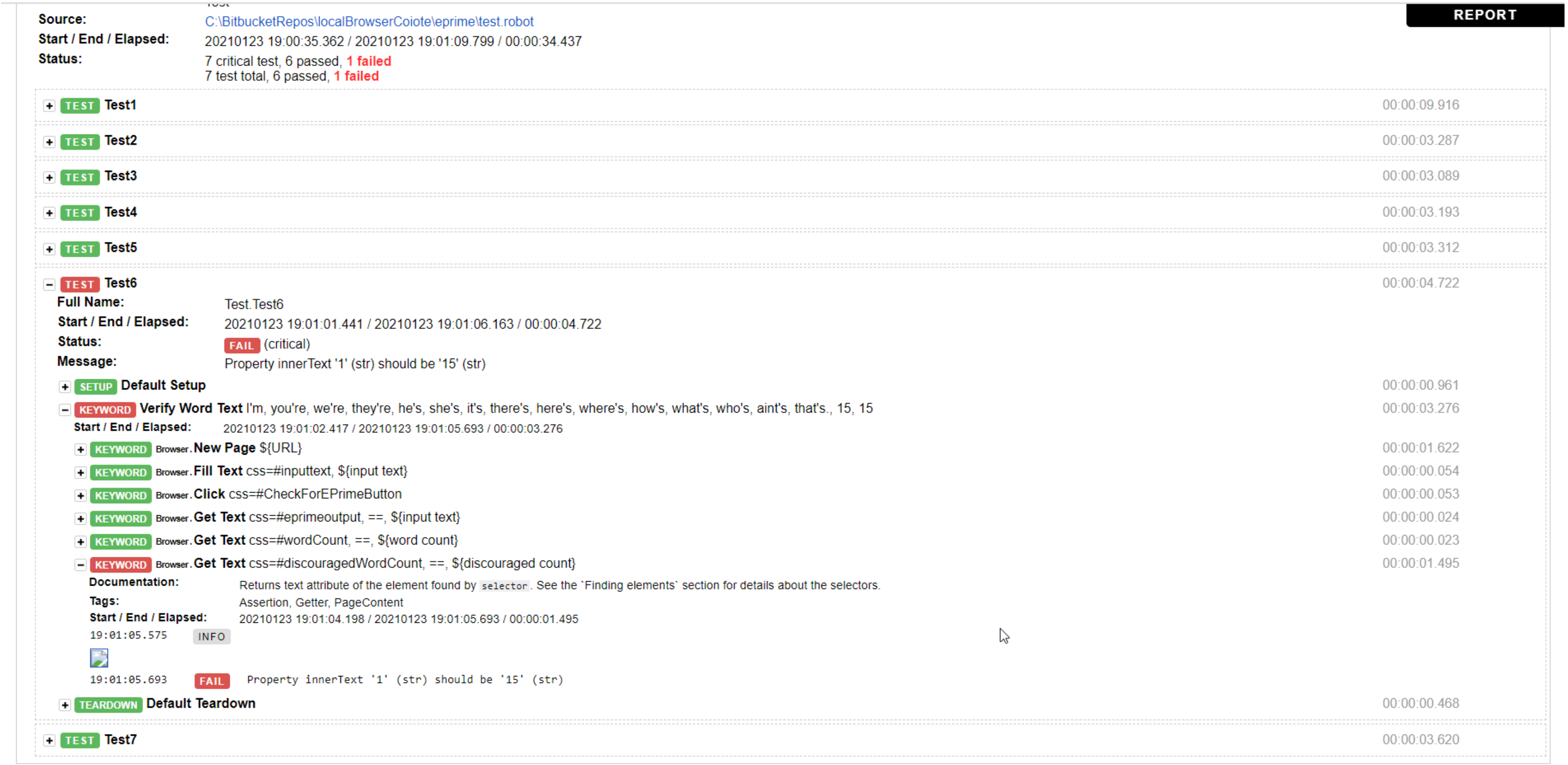

```
                                                                                                REPORT
Source:                C:\BitbucketRepos\localBrowserCoiote\eprime\test.robot
Start / End / Elapsed: 20210123 19:00:35.362 / 20210123 19:01:09.799 / 00:00:34.437
Status:                7 critical test, 6 passed, 1 failed
                       7 test total, 6 passed, 1 failed
+ TEST Test1                                                                           00:00:09.916
+ TEST Test2                                                                           00:00:03.287
+ TEST Test3                                                                           00:00:03.089
+ TEST Test4                                                                           00:00:03.193
+ TEST Test5                                                                           00:00:03.312
− TEST Test6                                                                           00:00:04.722
  Full Name:             Test.Test6
  Start / End / Elapsed: 20210123 19:01:01.441 / 20210123 19:01:06.163 / 00:00:04.722
  Status:                FAIL (critical)
  Message:               Property innerText '1' (str) should be '15' (str)
  + SETUP Default Setup                                                                00:00:00.961
  − KEYWORD Verify Word Text I'm, you're, we're, they're, he's, she's, it's, there's, here's, where's, how's, what's, who's, aint's, that's., 15, 15   00:00:03.276
    Start / End / Elapsed: 20210123 19:01:02.417 / 20210123 19:01:05.693 / 00:00:03.276
    + KEYWORD Browser.New Page ${URL}                                                  00:00:01.622
    + KEYWORD Browser.Fill Text css=#inputtext, ${input text}                          00:00:00.054
    + KEYWORD Browser.Click css=#CheckForEPrimeButton                                  00:00:00.053
    + KEYWORD Browser.Get Text css=#eprimeoutput, ==, ${input text}                    00:00:00.024
    + KEYWORD Browser.Get Text css=#wordCount, ==, ${word count}                       00:00:00.023
    − KEYWORD Browser.Get Text css=#discouragedWordCount, ==, ${discouraged count}     00:00:01.495
      Documentation:         Returns text attribute of the element found by selector. See the `Finding elements` section for details about the selectors.
      Tags:                  Assertion, Getter, PageContent
      Start / End / Elapsed: 20210123 19:01:04.198 / 20210123 19:01:05.693 / 00:00:01.495
      19:01:05.575   INFO

      19:01:05.693   FAIL   Property innerText '1' (str) should be '15' (str)
  + TEARDOWN Default Teardown                                                          00:00:00.468
+ TEST Test7                                                                           00:00:03.620
```

Documenting as Executable Test Automation

Throwaway automation?

Single line

→See it fail

→First test

→Same test but variables

→Same test but templates

→Failing test with a bug

→Spec to tests

→Guess the values that are likely to fail

→Multiple browsers

→Runs in CI

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Why This is not about Robot Framework

Chapter 13

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Documentation as a Constraint

A Balancing Act between Now and Future
Never be bored is not possible without
automation

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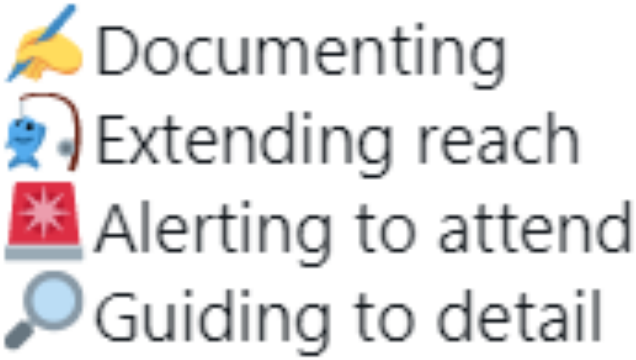
Automation in Frame of Exploratory Testing



✍️ Documenting
🎣 Extending reach
🚨 Alerting to attend
🔎 Guiding to detail

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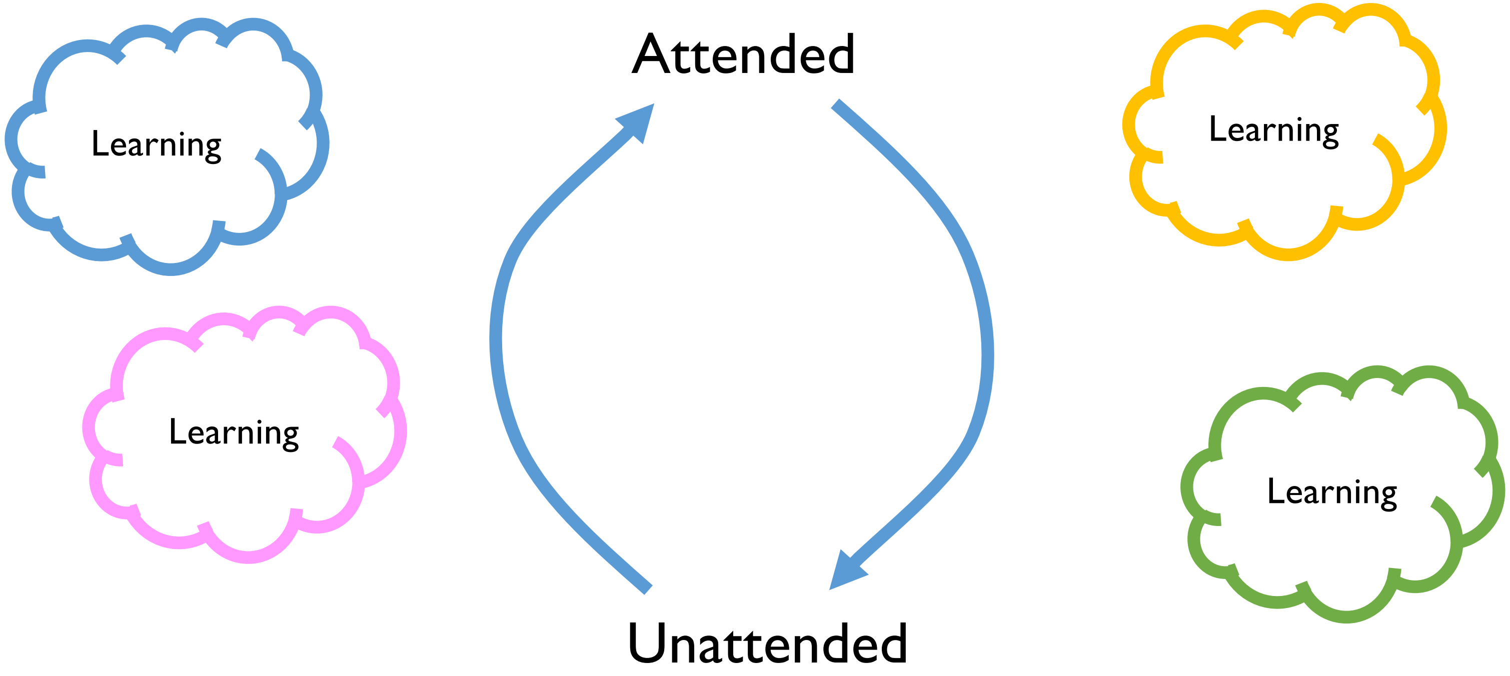
Moving Focus



Learning

Learning

Attended

Unattended

Learning

Learning

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Stop-and-Think:
Robot Framework Browser

How would the testing you did before this have been different if you were to start with this?

Use of Time

Chapter 14

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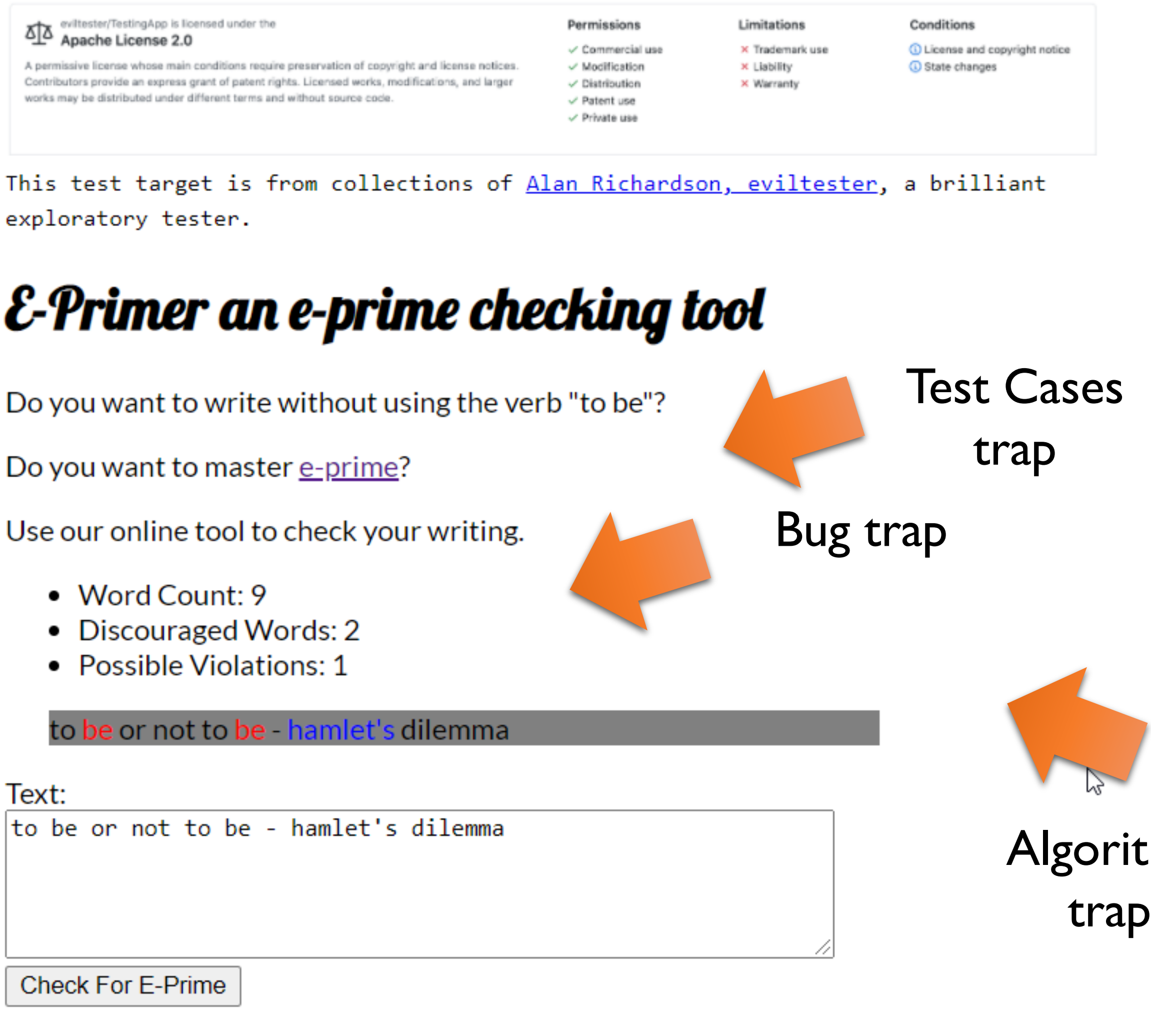
Test, Bug, Setup

Software with little bugs is faster to test

Setup is configuring, learning and documenting

Test grows coverage



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This test target is from collections of Alan Richardson, eviltester, a brilliant exploratory tester.

E-Primer an e-prime checking tool

Do you want to write without using the verb "to be"?

Do you want to master e-prime?

Use our online tool to check your writing.

- Word Count: 9
- Discouraged Words: 2
- Possible Violations: 1

to be or not to be - hamlet's dilemma

Text:

```
to be or not to be - hamlet's dilemma
```

Test Cases trap

Bug trap

Algorithm trap

Data trap

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Stop-and-Think:
Time and Traps

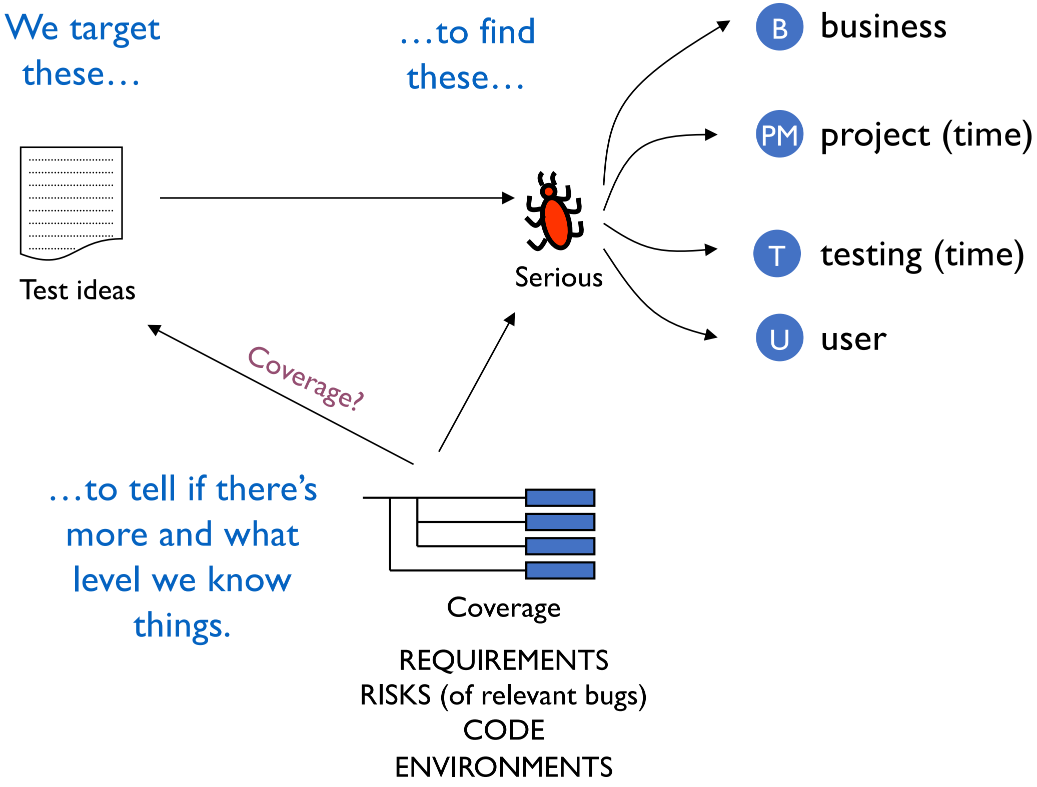
Where did your time go on testing of the application?

Coverage

Chapter 15

Setting the Stage for Testing

WHAT
WHEN
WHO
HOW
WHY



We target these…

…to find these…

Test ideas

Serious

Coverage?

B business

PM project (time)

T testing (time)

U user

…to tell if there's more and what level we know things.

Coverage

REQUIREMENTS
RISKS (of relevant bugs)
CODE
ENVIRONMENTS

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Risk Coverage

Coverage of relevant bugs
Effectiveness – results of overall strategy
facilitate experience of quality for
stakeholders

Stop-and-Think:
Coverage of Today's Testing

Would the testing you thought of have missed any of the bugs we have seen?

What did we not test?

Test Strategy

Chapter 16

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Ideas that Guide Test Design

Specific to Application Under Test

Risks to ways of testing for them

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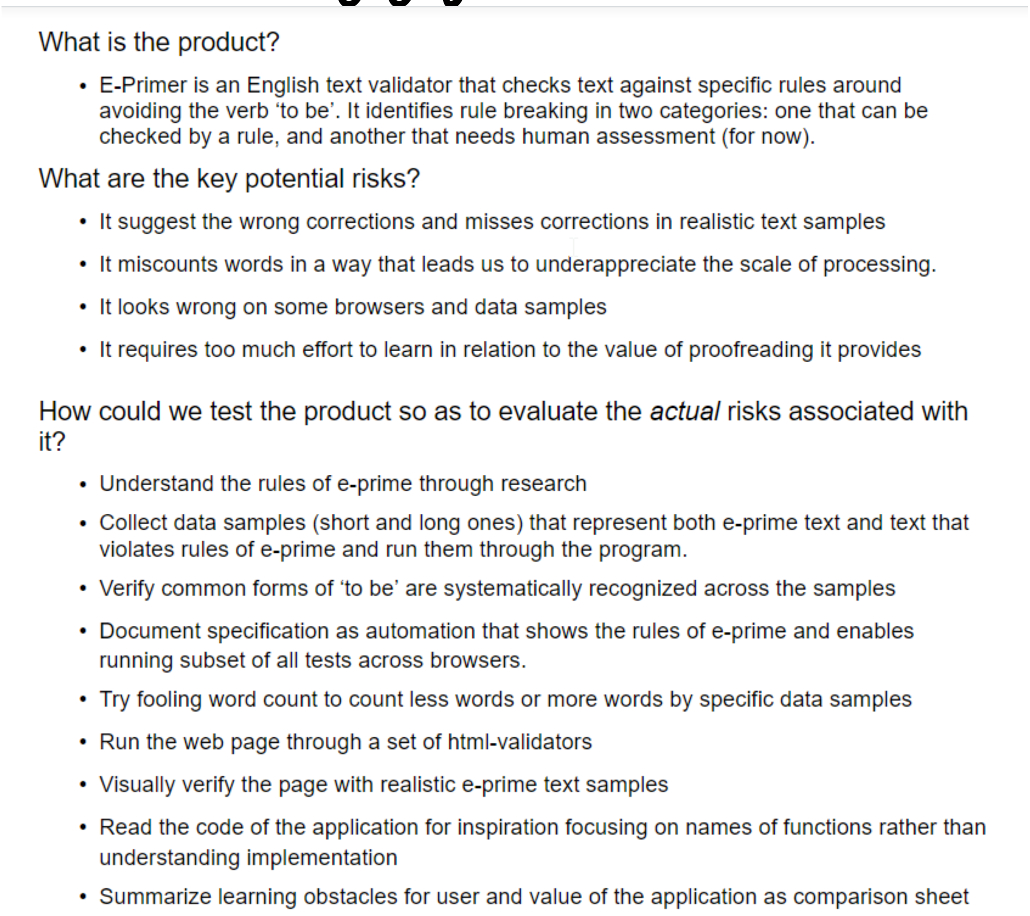
Let’s Test

https://www.exploratorytestingacademy.com/app/
https://eviltester.github.io/TestingApp/apps/eprimer/eprimer.html

Test Strategy for E-Primer



What is the product?

- E-Primer is an English text validator that checks text against specific rules around avoiding the verb ‘to be’. It identifies rule breaking in two categories: one that can be checked by a rule, and another that needs human assessment (for now).

What are the key potential risks?

- It suggest the wrong corrections and misses corrections in realistic text samples
- It miscounts words in a way that leads us to underappreciate the scale of processing.
- It looks wrong on some browsers and data samples
- It requires too much effort to learn in relation to the value of proofreading it provides

How could we test the product so as to evaluate the *actual* risks associated with it?

- Understand the rules of e-prime through research
- Collect data samples (short and long ones) that represent both e-prime text and text that violates rules of e-prime and run them through the program.
- Verify common forms of ‘to be’ are systematically recognized across the samples
- Document specification as automation that shows the rules of e-prime and enables running subset of all tests across browsers.
- Try fooling word count to count less words or more words by specific data samples
- Run the web page through a set of html-validators
- Visually verify the page with realistic e-prime text samples
- Read the code of the application for inspiration focusing on names of functions rather than understanding implementation
- Summarize learning obstacles for user and value of the application as comparison sheet

Full results and reproducing from customer feedback

Chapter 17

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Invisible ink

Customers will tell you of some of the things you missed
Observing customers (incl. telemetry) will tell you of some of the things you missed
Limited reporting capability

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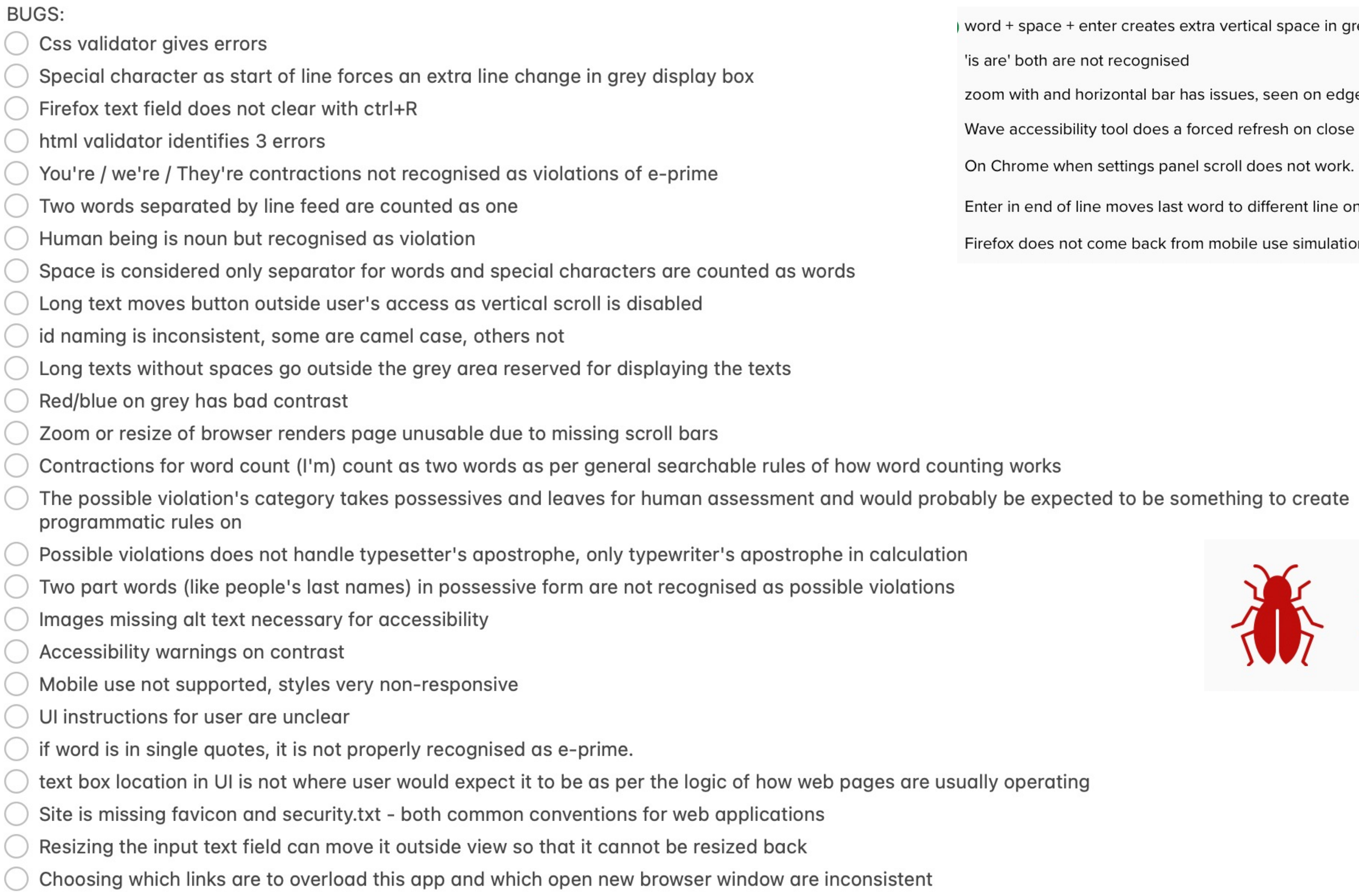
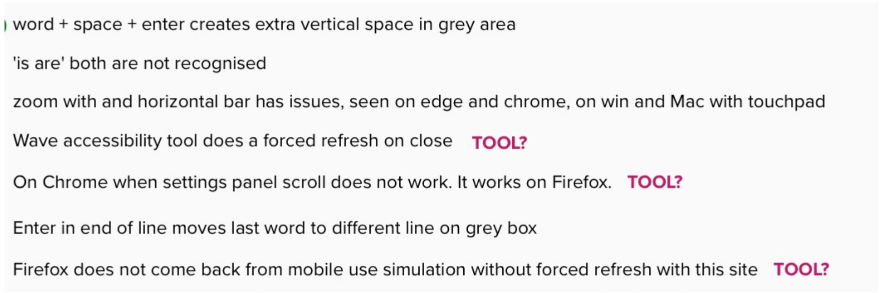


BUGS:

- ○ Css validator gives errors
- ○ Special character as start of line forces an extra line change in grey display box
- ○ Firefox text field does not clear with ctrl+R
- ○ html validator identifies 3 errors
- ○ You're / we're / They're contractions not recognised as violations of e-prime
- ○ Two words separated by line feed are counted as one
- ○ Human being is noun but recognised as violation
- ○ Space is considered only separator for words and special characters are counted as words
- ○ Long text moves button outside user's access as vertical scroll is disabled
- ○ id naming is inconsistent, some are camel case, others not
- ○ Long texts without spaces go outside the grey area reserved for displaying the texts
- ○ Red/blue on grey has bad contrast
- ○ Zoom or resize of browser renders page unusable due to missing scroll bars
- ○ Contractions for word count (I'm) count as two words as per general searchable rules of how word counting works
- ○ The possible violation's category takes possessives and leaves for human assessment and would probably be expected to be something to create programmatic rules on
- ○ Possible violations does not handle typesetter's apostrophe, only typewriter's apostrophe in calculation
- ○ Two part words (like people's last names) in possessive form are not recognised as possible violations
- ○ Images missing alt text necessary for accessibility
- ○ Accessibility warnings on contrast
- ○ Mobile use not supported, styles very non-responsive
- ○ UI instructions for user are unclear
- ○ if word is in single quotes, it is not properly recognised as e-prime.
- ○ text box location in UI is not where user would expect it to be as per the logic of how web pages are usually operating
- ○ Site is missing favicon and security.txt - both common conventions for web applications
- ○ Resizing the input text field can move it outside view so that it cannot be resized back
- ○ Choosing which links are to overload this app and which open new browser window are inconsistent



word + space + enter creates extra vertical space in grey area

'is are' both are not recognised

zoom with and horizontal bar has issues, seen on edge and chrome, on win and Mac with touchpad

Wave accessibility tool does a forced refresh on close **TOOL?**

On Chrome when settings panel scroll does not work. It works on Firefox. **TOOL?**

Enter in end of line moves last word to different line on grey box

Firefox does not come back from mobile use simulation without forced refresh with this site **TOOL?**

34 bugs

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Let's Test

https://www.exploratorytestingacademy.com/app/
https://eviltester.github.io/TestingApp/apps/eprimer/eprimer.html

Finding (more of some) relevant Conversation Starters

You will never find all bugs.

Target finding only things that matter. Learn what matters.

Seeing and not reporting is better than not seeing problems.

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Closing Remarks

Chapter 18

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Course Outline

Chapter 1: Test target and our options for exploring

Chapter 2: Self-management basics on setting yourself constraints

Chapter 3: The moment of first impression

Chapter 4: Recognizing and learning a domain

Chapter 5: Recognizing functionality

Chapter 6: Recognizing data

Chapter 7: Recognizing application and execution environment

Chapter 8: Documenting in a mindmap

Chapter 9: Robot framework the very basics

Chapter 10: Documenting as skeleton test automation

Chapter 11: Robot framework browser library and CSS selectors on web pages

Chapter 12: Documenting as executable test automation

Chapter 13: Why this is not about Robot Framework

Chapter 14: Use of time

Chapter 15: Coverage

Chapter 16: Test Strategy

Chapter 17: Full results and reproducing from customer feedback

Chapter 18: Closing remarks

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Maaret Pyhäjärvi (from Finland)

EuroSTAR TESTING EXCELLENCE AWARD

2020

AGILE TESTING DAYS

MIATPP

Most Influential Agile Testing Professional Person

2016

tivi

100 ICT-influencers in Finland

2019, 2020, 2021

EXPLORATORY Testing

https://exploratorytestingacademy.com

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