

# **SDET Challenge Testing Plan**

## **1 Test Objectives**

The objective of testing is to develop the beginnings of testing coverage for the TwinThread issue tracker, Canary. Since Canary is used by other customers, issues that may impact Canary's reliability may also impact the main products of TwinThread.

## **2 Scope**

### ***Inclusions***

This test plan will limit itself to basic functions that external customers will perform: Logging In and Altering Issues that Currently Exist on Canary

### ***Exclusions***

This test plan will not cover anything outside of those two functions for Canary nor any other product. Specifically, creating or removing issues from Canary will not be tested.

## **3 Assumptions**

This test plan will focus on front-end accessible functions, assuming this testing is coming from the perspective of external users. This also assumes that Canary itself will be accessible to TwinThread developers at all times, so that any issues discovered by the testing can also be reported on Canary.

## **4 Schedules**

The nature of this project as a solo technical project prevents a formal planned schedule on a normal pace to most test plans. In lieu of a formal schedule, I will break down how I spent my time.

### ***Breakdown and Explanation of Time***

Most of my work was performed piecemeal in between moments in my current job, internet outages via storms and other issues, and other issues. I intended to work on the plan some, then the Cypress code, and back to the plan. However, I ran into 2 issues that I didn't know how to work around quickly. I wanted to understand what I was doing incorrectly as a relative Javascript neophyte and being brand new to Cypress. As such, I went over the time and spent over the four hour limit, trying to learn Cypress and troubleshoot the simple test I had been writing. In the interest of sticking to the limited timeframe, the work here is what was written up over the course of an hour or so, before blowing more than four on scripting and debugging.

## **Superdomains and Redirection**

The first issue that I ran into involves how Cypress handles domains and redirects within tests. Because I was authenticating through the UI like an average user would, I would be redirected from Canary to the login page hosted on the dev.twinthread.com domain. While I believed this to be on the same superdomain, Cypress thought otherwise. I spent a lot of time on trying to solve this problem, believing that I had messed up a command or was using the incorrect one before settling for a workaround in the cypress.json file.

## **Issues POSTing a comment via UI**

The second major issue that I discovered was that I could not use the UI to submit a comment whilst running a test in Cypress. When logged in normally, I could type my comment and either hit Enter or click the Submit button. Both of these methods were rejected by Canary, with no other information than “Operation Incomplete/Invalid”. Because the issue was coming from Canary and not Cypress, I left it alone, leaving the test at writing the test comment. If anyone could explain to me what I was doing wrong, I would really appreciate it.

## **5 Roles and Responsibilities**

This is where a formal list of those who work on Canary’s front end would live as well as those, other than myself, who would be in charge ensuring that the testing suite developed here continues to run.

## **6 Deliverables**

The deliverables for this project are as follows:

- This test plan document
- The code base for the testing suite developed which will reside on GitHub
  - The single test procedure laid out in this project’s instructions are reproduced below:  
“Your automated test suite should login to the site, visit Canary and try to append a comment to an issue. Bonus points if you can have it report an issue from the main app”

## **7 Tools**

The test suite will be developed with Cypress (Javascript).

## **8 Defect Management**

As stated in the Assumptions section of this document, Canary itself will be used to report the defects of Canary. Those listed in the Roles and Responsibilities section would receive the notifications of any issues found by testing.

## 9 Risks and Risk Management

There are only low to medium risks if logging in is broken, as other issues may not be able to be reported. But since this does not impact the day-to-day function of TwinThread's other products, there should be little cause for alarm. Especially since this is easily mitigatable by clients notifying their points of contact within the company of their issues logging in and providing those other details that would be included in the comments on an issue.

## 10 Exit Criteria

The end of test development is restricted to the small scope of the project, but ideally these tests will be used as smoke tests whenever Canary is modified.

## 11 Example Schedule of Tests

### *Logging In*

#	Set-Up Conditions	Testing Action	Expected Result
1	New private window	Click Log In with No Username or Password provided	Login failure with no errors
2	New private window	Type in Username Field: test	Login failure with Invalid Email Format error
3	New private window	Type in Username Field: test@test	Login failure with Invalid Email Format error
4	New private window	Type in Username Field: test@test.t	Login failure with Invalid Email Format error
5	New private window	Type in Username Field: test@test.com	Login failure with no visible error (No Password Provided)
5 *	New private window	Repeat Test 5 with different valid domains like .gov, .edu, .net, .org	Login failure with no visible error (No Password Provided)
6	New private window, Valid Username in the Correct	Type a Single Random Valid Character in the Password Field: T	Login failure with Invalid Login Attempt Error

	Field		
6 *	New private window, Valid Username in the Correct Field	Repeat with increasing random valid character in the Password Field from 2 to 11 character in length	Login failure with Invalid Login Attempt Error
7	New private window, Valid Username in the Correct Field	Type in a 12 character password with only lowercase letters	Login failure with Invalid Login Attempt Error
7 *	New private window, Valid Username in the Correct Field	Type in a 12 character password with only uppercase letters, numbers, or special characters	Login failure with Invalid Login Attempt Error