**Summary and Concerns**

When starting on the deliverable, I referred to the exercise guesser.rb frequently. The program is similar so using that file as a base seemed reasonable. I quickly ran into problems when I was trying to request information through the get method. The push to refrain from using many hidden, or end tags made me split the program up into parts. The error pages were straight forward however there was a discrepancy between the pictures and the requirements so I sided with the requirements. In the sample pictures it does not specify that the error code was shown but it was noted in the requirements. After finishing the program I moved on to testing with Katalon Studio on Google Chrome.

Testing with Katalon required a small learning curve however it was definitely a major improvement over writing them individually and having to look the asserts up. There were plenty of asserts and verify commands that looked interesting. I wanted to try and branch to use some of them, but I was not entirely sure of what value I could test at that point or exactly how to get the value I wanted. For example, I ran into a problem when testing the webapp with Katalon Studio. When trying to test a corner case such as the size 100000, the localhost absolutely does not like that request because it runs out of memory quickly. I was not sure of what value I could test there so there currently is not an assert or verify after the inputs, for that test case only. For all other test cases, there are verify commands to check that the current location is correct. I wanted to initially test the variables in the post method however I figured that verifying that an element shows up on the webpage is pretty much similar. I used a lot of verifyText and verifyElementPresent in terms of making sure that the website displayed the correct information as well as making sure that the location on the host site is correct.

**Traceability Matrix**

REQ\_1: 1\_Test\_Valid\_Connection

REQ\_2: 2\_Test\_Home\_Reload,

3\_Test\_Error\_404\_Home,

4\_Test\_Truth\_Table\_Home

REQ\_3: 5\_Test\_Invalid\_Size\_Small

6\_Test\_Invalid\_Size\_Character

7\_Test\_Invalid\_Size\_Negative

8\_Test\_Invalid\_Size\_Too\_Big

REQ\_4: 9\_Test\_Valid\_Args

10\_Test\_Valid\_Size

11\_Test\_Invalid\_True\_Symbol\_Length

12\_Test\_Invalid\_Same\_Symbol

REQ\_5: 13\_Test\_False\_Symbol\_Integer

14\_Test\_Truth\_Table\_Initialization

REQ\_6: 15\_Test\_Truth\_Symbol\_Character

16\_Test\_And\_Column\_Initialization

17\_Test\_Correct\_Column\_Number

REQ\_7: 18\_Test\_Default\_Args

REQ\_8: 19\_Test\_Error\_404\_Bad\_Address

Table 1 - Requirements (Rows) matched with its Test Case Identifier (Columns)

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 |
| REQ\_1 | **X** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| REQ\_2 |  | **X** | **X** | **X** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| REQ\_3 |  |  |  |  | **X** | **X** | **X** | **X** |  |  |  |  |  |  |  |  |  |  |  |
| REQ\_4 |  |  |  |  |  |  |  |  | **X** | **X** | **X** | **X** |  |  |  |  |  |  |  |
| REQ\_5 |  |  |  |  |  |  |  |  |  |  |  |  | **X** | **X** |  |  |  |  |  |
| REQ\_6 |  |  |  |  |  |  |  |  |  |  |  |  |  |  | **X** | **X** | **X** |  |  |
| REQ\_7 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | **X** |  |
| REQ\_8 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | **X** |