# CS 1632 – DELIVERABLE 3: Automated System Testing of a Web Application

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https://github.com/iamjaypatel/D3

There were several issues that I faced while implementing this program. One of my biggest problem was my inexperience with HTML. I had learned it in high school, but that was an introduction course that did not go deep into the language. Thus, learning the <table> HTML tag. Learning this tag didn't take much time as my prior knowledge with the basic format helped me grasp this quickly. Second issue I faced was figuring out how to implement the truth table. Hence the first thing that came to my mind was to place all the things on the display and manage it through an array. I made this array accessible to the main.erb file, which acts as the main page for this project, and is in charge of printing the truth table. In order to print everything to screen, I used a for-loop which ran from 0 to the $2^{(table size)}-1$. Then I had to print it on the screen with the correct computation. This brings us to next issue I faced. This was the computation of the AND, OR. I only include these two operators because the other two are complete opposite of them, hence it would be easier to just negate the values from AND, OR computation if it worked. Over all I would say that this deliverable made me brush-up on my HTML knowledge, and it was fun coding this to completion.

# Traceability Matrix

| Requirements | Test Case |
|---|---|
| 1 | 1. test_table_button |
| 2 | 1. test_main_page<br>2. test_table_link<br>3. test_error_parameter<br>4. test_error_address |
| 3 | 1. test_back_to_main_link_table |
| 4 | 1. test_string_false_parameter<br>2. test_string_true_parameter<br>3. test_string_size_parameter<br>4. test_same_value<br>5. test_table_size_one |
| 5 | 1. test_valid_heading<br>2. test_true_false_symbols |
| 6 | 1. test_AND_function<br>2. test_OR_function<br>3. test_NAND_function<br>4. test_OR_function |
| 7 | 1. test_default_true<br>2. test_default_false<br>3. test_default_size<br>4. test_all_default_values |
| 8 | 1. test_incorrect_url |

Katalon Recorder 3.6.14

New | Record | Play | Play Suite | Play All | Pause | {} Export

**Test Suites**

TestSuite

- test_table_button
- test_string_false_parameter
- test_string_true_parameter
- test_string_size_parameter
- test_default_true
- test_dafault_false
- test_default_size
- test_all_default_values
- test_incorrect_url
- test_AND_function

**Passed: 22**    **Failed: 0**

| Command | Target | Value |
|---|---|---|
| open | http://localhost:4567/ | |
| assertValue | name=table | Show truth table |

Command

Target

Value

Log    Screenshots    Variables    Data Driven    Extension Scripts    Reference    Analytics

[info] Browser: Chrome Version: 73.0

[info] If the test cannot start, please refresh the active browser tab

[info] Executing: | open | http://localhost:4567/ | |

[info] Executing: | click | name=table | |

[info] Executing: | click | link=Back to main | |

[info] Time: Sun Mar 31 2019 20:39:56 GMT-0400 (Eastern Daylight Time) Timestamp: 1554079196373

[info] Test case passed