PAINT CALCULATOR TEST REPORT

Paint Calculator Test Plan

Objectives
-Provide a set of automated tests that verify the accuracy of the Paint Calculator
-Document any defects and address areas that are lacking requirements

In Scope
-Automated field validation tests and functional tests
-Google Chrome Browser with the use of Selenium Web Driver

Out of Scope
-Performance, Stress, Load, and Volume testing
-Multiple browsers

Approach
-Basic use cases such as single and multi-room scenarios with decimal and integer values
-Include field validation tests to verify no bad data is entered

Summary

1.   View the software to be tested.

2.   Check requirements by exploring functionality of the paint calculator
   • Field validation
   • Simple Calculation
   • Decimal Calculation
   • Rounding Calculation

3.   Automate Tests:

   • Field validation seems important for this test, and it has already been done in back end I just need to make some little changes. Decimal, negative numbers, and empty fields are tested to assure the script will not advance to the dimension page or the result page

   • For simple and decimal calculation, I assure that the total area to paint is calculated, and that the total gallons required is likewise calculated.

4.   View Initial Results:

   • On the initial run, I see flawless field validation, but a test failed for area to paint in the calculation.

5.   Check Bugs:

- By observing the failed test under debug, I see that the total area to paint is miscalculated.

DEBUGGING

6.   1st bug.

- Total Area to paint is miscalculated.

- When I run the test case for single room calculation, the total area to paint is not calculated correctly.

- When I submit 1 room to paint and set the calculation as 10L, 10W, and 5H, the total feet of area to paint should be calculate as ((10x2)+ (10x2))*5 = 200, however it calculated as 500.

- While crawling the code: instead of dividing with 400 the feet area, it was dividing as 350.

- Performed the correction and reran the test.

7.   2nd bug.

- Error with decimal values.

- Total Area to paint is miscalculated with decimal values

- When I run the following test cases for decimal calculations, the feet area of room is not properly calculated due to converting into integer.

- When I submit 1 room to paint and I set the calculation as 10.9L, 10.2W, and 2.5H, which should have total feet of area to paint should be 105.5. However, I was receiving 84 gallons.

- Performed the correction and reran the test.

8.   3rd bug.

- Total gallons for per room are not rounding up.

- When I run the following test cases for rounding calculations for the total gallons per room, it is not properly calculating due to rounding error.

- When I submit 1 room to paint and set the calculation as 40L, 40W, and 4H, it was calculate to 1.6 gallons of paint, which should round up to 2 gallons.

- Currently, it was rounding down to 1 gallon.

- Performed the correction and reran the test.

7 Test Cases Passes and generates the result under TestNG

```
Please protect ports used by ChromeDriver and related test frameworks to prevent access by mal
Mar 10, 2019 7:12:27 PM org.openqa.selenium.remote.ProtocolHandshake createSession
INFO: Detected dialect: OSS
1
400.0
Total Gallons Required: 1
Starting ChromeDriver 72.0.3626.69 (3c16f8a135abc0d4da2dff33804db79b849a7c38) on port 48092
Only local connections are allowed.
Please protect ports used by ChromeDriver and related test frameworks to prevent access by mal
Mar 10, 2019 7:12:32 PM org.openqa.selenium.remote.ProtocolHandshake createSession
INFO: Detected dialect: OSS
1
105.5
Total Gallons Required: 1
Starting ChromeDriver 72.0.3626.69 (3c16f8a135abc0d4da2dff33804db79b849a7c38) on port 34692
Only local connections are allowed.
Please protect ports used by ChromeDriver and related test frameworks to prevent access by mal
Mar 10, 2019 7:12:36 PM org.openqa.selenium.remote.ProtocolHandshake createSession
INFO: Detected dialect: OSS
1
600.0
2
480.0
3
1600.0
Total Gallons Required: 8
Starting ChromeDriver 72.0.3626.69 (3c16f8a135abc0d4da2dff33804db79b849a7c38) on port 39255
Only local connections are allowed.
Please protect ports used by ChromeDriver and related test frameworks to prevent access by mal
Mar 10, 2019 7:12:43 PM org.openqa.selenium.remote.ProtocolHandshake createSession
INFO: Detected dialect: OSS
1
500.0
Total Gallons Required: 2
```

```
 PASSED: test0
         Verify Negative values are not accepted
 PASSED: test1
         Verify Blank values are not accepted
 PASSED: test2
         Verify Decimal values are not accepted
 PASSED: test3
         Single Room with integer values
 PASSED: test4
         Single Room with decimal values
 PASSED: test5
         Multiple Rooms Calculations
 PASSED: test6
         Rounding Calculation

 ===============================================
     Default test
     Tests run: 7, Failures: 0, Skips: 0
 ===============================================


 ===============================================
 Suite
 Total tests run: 7, Failures: 0, Skips: 0
 ===============================================
```