System Level Tests

The following is the system level test used for a math calculator program.

Purpose:

The purpose of this System Level Test is the following:

1. To ensure that the program produces the correct answer.
2. To ensure that the function button changes the operation.
3. To ensure that the calculate button produces a correct answer.
4. To ensure that the calculator is functional and usable.

Setup:

To set up and run the program, do the following actions.

1. Open Netbeans
2. Open the MVC Package
3. Run the package as a Java Application
4. A popup window is displayed.
5. Input the first number into the first text box.
6. Click the Function Button to change the math operator to the desired operation.
7. Input the second number into the second text box.
8. Click Calculate to get the answer.

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| **Action** | **Input** | **Expected Output** |
| Launch Program |  | Popup Window, single line calculator |
| Enter number in text box | 4 | 4 shows in the box |
| Select function | Function Button Click | “+”, “-“, “\*”, “/” – whichever you want will be shown |
| Enter number in second box | 8 | 8 shows up in the box |
|  |  | 4 \* 8 is shown |
| Click Calculate |  | 32 will be the answer. |

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| **Action** | **Input** | **Expected Output** |
| Launch Program |  | Popup Window, single line calculator |
| Enter number in text box | A | A shows in the box |
| Select function | Function Button Click | “+”, “-“, “\*”, “/” – whichever you want will be shown |
| Enter number in second box | 15 | 15 shows up in the box |
|  |  | A \* 15 is shown |
| Click Calculate |  | You Need to Enter 2 Numeric Values. |
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| **Action** | **Input** | **Expected Output** |
| Launch Program |  | Popup Window, single line calculator |
| Enter number in text box | 3 | 3 shows in the box |
| Select function | Function Button Click | “+”, “-“, “\*”, “/” – whichever you want will be shown |
| Enter number in second box | 8 | 8 shows up in the box |
|  |  | 3 + 8 is shown |
| Click Calculate |  | 11 will be the answer. |

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| **Action** | **Input** | **Expected Output** |
| Launch Program |  | Popup Window, single line calculator |
| Enter number in text box | Empty | Empty |
| Select function | Function Button Click | “+”, “-“, “\*”, “/” – whichever you want will be shown |
| Enter number in second box | Empty | Empty |
|  |  | Empty |
| Click Calculate |  | You Need to Enter 2 Numeric Values. |

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| **Action** | **Input** | **Expected Output** |
| Launch Program |  | Popup Window, single line calculator |
| Enter number in text box | 6 | 6 shows in the box |
| Select function | Function Button Click | “+”, “-“, “\*”, “/” – whichever you want will be shown |
| Enter number in second box | 3 | 3 shows up in the box |
|  |  | 6 / 3 is shown |
| Click Calculate |  | 2 will be the answer. |

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| **Action** | **Input** | **Expected Output** |
| Launch Program |  | Popup Window, single line calculator |
| Enter number in text box | 10 | 10 shows in the box |
| Select function | Function Button Click | “+”, “-“, “\*”, “/” – whichever you want will be shown |
| Enter number in second box | 5 | 10 shows up in the box |
|  |  | 10 / 5 is shown |
| Click Calculate |  | 2 will be the answer. |

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| **Action** | **Input** | **Expected Output** |
| Launch Program |  | Popup Window, single line calculator |
| Enter number in text box | 9 | 9 shows in the box |
| Select function | Function Button Click | “+”, “-“, “\*”, “/” – whichever you want will be shown |
| Enter number in second box | 8 | 8 shows up in the box |
|  |  | 9 - 8 is shown |
| Click Calculate |  | 1 will be the answer. |

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| **Action** | **Input** | **Expected Output** |
| Launch Program |  | Popup Window, single line calculator |
| Enter number in text box | 9 | 9 shows in the box |
| Select function | Function Button Click | “+”, “-“, “\*”, “/” – whichever you want will be shown |
| Enter number in second box | X | X shows up in the box |
|  |  | 9 - X is shown |
| Click Calculate |  | You Need to Enter 2 Numeric Values. |

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| **Action** | **Input** | **Expected Output** |
| Launch Program |  | Popup Window, single line calculator |
| Enter number in text box | 9 | 9 shows in the box |
| Select function | Function Button Click | “+”, “-“, “\*”, “/” – whichever you want will be shown |
| Enter number in second box | 8 | 8 shows up in the box |
|  |  | 9 + 8 is shown |
| Click Calculate |  | 17 will be the answer. |

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| **Action** | **Input** | **Expected Output** |
| Launch Program |  | Popup Window, single line calculator |
| Enter number in text box | Empty | Empty |
| Select function | Function Button Click | “+”, “-“, “\*”, “/” – whichever you want will be shown |
| Enter number in second box | X | X shows up in the box |
|  |  | X is shown |
| Click Calculate |  | You Need to Enter 2 Numeric Values. |

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| **Action** | **Input** | **Expected Output** |
| Launch Program |  | Popup Window, single line calculator |
| Enter number in text box | 12 | 12 shows in the box |
| Select function | Function Button Click | “+”, “-“, “\*”, “/” – whichever you want will be shown |
| Enter number in second box | Empty | Empty |
|  |  | 12 is shown |
| Click Calculate |  | You Need to Enter 2 Numeric Values. |