Principles of Programming assignment one:

# Testing

## 1.2-Main Menu

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Test Number | Test Name | Hypothesis | Reality | Does it work? |
| 1 | Web button | Should go to website form | Goes to website form | YES |
| 2 | Text button | Should go to Text form | Goes to text form | YES |
| 3 | Calculator button | Should go to Calculator form | Goes to calculator form | YES |

### 1.1.1-Conclusion:

All buttons tested in this form work. The coding behind form transferal is simple in comparison to the rest of the project. However it’s crucial to make sure they work. Errors could lead to the loss of a whole form, as the user won’t be able to access it.

## 1.3-Calculator

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Test Number | Test Name | Hypothesis | Reality | Does it Work |
| 1 | 0 button | Should place a 0 on the textbox | Places 0 in the textbox | YES |
| 2 | 2 button | Should place a 2 on the text box | Places 2 in the textbox | YES |
| 3 | 3 button | Should place a 3 on the text box | Places 3 in the textbox | YES |
| 4 | 4 button | Should place a 4 on the text box | Places 4 in the textbox | YES |
| 5 | 5 button | Should place a 5 on the text box | Places 5 in the textbox | YES |
| 6 | 6 button | Should place a 6 on the text box | Places 6 in the textbox | YES |
| 7 | 7 button | Should place a 7 on the text box | Places 7 in the textbox | YES |
| 8 | 8 button | Should place a 8 on the text box | Places 8 in the textbox | YES |
| 9 | 9 button | Should place a 9 on the text box | Places 9 in the textbox | YES |
| 10 | . button | Should place a . on the text box | Places . in the textbox | YES |
| 11 | 1 button | Should place 1 in the textbox | Places 1 in the textbox | YES |
| 12 | / button | Should clear the textbox | Clears the textbox | YES |
| 13 | \* button | Should clear the textbox | Clears the textbox | YES |
| 14 | + button | Should clear the textbox | Clears the textbox | YES |
| 15 | - button | Should clear the textbox | Clears the textbox | YES |
| 16 | = button | Should perform the correct sum based on what numbers and signs are selected. It should then display that in the textbox e.g. if 10 / 5 is entered. 2 should appear in the text box | Tested with each possible sign (\*, /, +, and -) all with sums below 1000. Each was correct | YES |
| 17 | Main Menu button | Should close the calculator form and open the main form | Closes the Calculator form and opens the main form | YES |

### 1.3.1-Conclusion

This calculator works perfectly. No errors have been displayed, nor have any been shown with the mathematics. While the user interface is basic, the program functions optimally.

# 1.4-Text Editor

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Test Number | Test | Hypothesis | Reality | Does It Work |
| 1 | Main Menu button | Should close the current form and open the menu form | Closes the current form and opens the main menu form | YES |
| 2 | Text colour change | Should change the colour of the text | Changes the colour of the text | YES |
| 3 | Text font change | Allows you to change the font of the text | Allows you to change the font of the text | YES |
| 4 | Undo | Should undo the last word/letter typed | Undo’s the last word/letter typed | YES |
| 5 | Redo | Should allow you to bring back your recent undo | Allows you to bring back your undo | YES |
| 6 | Clear | Should clear the document | Clears the document | YES |
| 7 | Save | Should allow you to save a document | Allows you to save your document | YES |
| 8 | Open file | Should allow you to open a txt file. | Allows you to open a txt file | YES |
| 9 | Cut | Should cut a piece of highlighted text | Cuts a piece of highlighted text | YES |
| 10 | Copy | Should copy a piece of highlighted text | Copies a piece of highlighted text | YES |
| 11 | Paste | Should paste a piece of highlighted text | Pastes a piece of highlighted text | YES |

### 1.4.1-Conclusion

The text document performed all tests without any errors. The images used for the buttons titled (Undo, Redo, Font, and Colour) all load correctly. The page also allows you to close the form and re open the menu form.

## 1.5- Web Page

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Test Number | Test Name | Hypothesis | Reality | Does it work? |
| 1 | Refresh button | Should refresh the page | Refreshes the page | YES |
| 2 | URL text box | Should allow you to type in a url | Allows you to type in a url. However, only works with full URL’s | YES/Partial |
| 3 | Web browser | Should load the home url. And load any url typed into the text box | Allows you to search from the typed in URL. Also loads up the default browser | YES |
| 4 | Back button | Should go back to a previous page | Goes back though previous pages | YES |
| 5 | Forward button | Should go forwards from a previous page | Goes forward from past searches | YES |
| 6 | Main Menu button | Should close the form and open the main menu form | Won’t allow you to return to main menu | NO! |
| 7 | Search button | Should search a typed in url | Does search a typed in URL | YES |
| 8 | Adult search | Should not be able to access adult sites | You can access adult sites | NO |

### 1.5.1 Conclusion:

While a majority of this part of the program works. Serious flaws were discovered while testing was carried out. One (which was fixed) was the search function. It wouldn’t load what was typed into the text box. However, this has now been fixed. Another problem is with the Adult searches. While google does a good job at filtering content (Which is why it’s the starting URL) it would work much better with a pre-built word blocker built into the program. However, this has challenges. One being that any possible solution could take away from the user’s experience, for example. An array could be used to block certain words however, this raises the problem of words within words, a prime example being ‘Scunthorpe’. I believe all schools have a pre-built firewall on their network that will monitor words typed and block search results using certain words. This means that it isn’t needed in the program.

Another big problem has been the menu button. So far this has proven to be un-solvable by the current developer due to lack of knowledge on the subject. This is a program breaking bug as it requires re opening the whole program just to return to the main menu.

# 1.6- Bibliography

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