**Criteria 7 Testing Table**

**frmLogin**

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| --- | --- | --- | --- | --- |
| What was tested | How was it tested | Expected result | Actual result | Changes made if needed |
| Creating a new PIN | Renaming the PIN file and opening the program | Asked to create a PIN | Asked to create a PIN | N/A |
| Inputting an invalid PIN (range checking) | Inputting more than 4 numbers – ‘12345’ | Asked to create a valid PIN | Asked to create a valid PIN | N/A |
| Inputting invalid PIN data  (type checking) | Inputting letters into the PIN creation, a combination of both letters and numbers – ‘ab12’ | Asked to create a valid PIN | Asked to create a valid PIN | N/A |
| Null PIN input for creation | Inputting nothing into the PIN creation input box | Asked to create a valid PIN | Asked to create a valid PIN | N/A |
| Integer overflow | Inputting ‘1e10’ into the input box | Asked to create a valid PIN | Asked to create a valid PIN | N/A |
| Inputting a valid PIN | Inputting ‘1234’ into the input box | PIN is created | PIN is created | N/A |
| Null input for entering PIN | Inputting nothing into the enter PIN text box | Message box stating that it was incorrect | Message box stating that it was incorrect | N/A |
| Incorrect input for PIN | Inputting ‘abcd’ into the text box | Message box stating that it was incorrect | Message box stating that it was incorrect | N/A |
| Inputting the correct PIN | Inputting ‘1234’ into the text box | Opens up frmMain | Opens up frmMain | N/A |
| Closing the form | Clicking the ‘close’ button | Closes the program | Closes the program | N/A |

**frmMain**

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| --- | --- | --- | --- | --- |
| What was tested | How was it tested | Expected result | Actual result | Changes made if needed |
| Auto boot feature | Clicking the menu strip which makes the program boot up on boot | Opens up on boot | Opens up on boot, but only on one device | Created input box where the user can input their own program path |
| Remove auto boot | Clicking the menu strip which removes the auto boot | Auto boot is removed, and success message box is displayed | Crash | Added try catch prompting the user to be in administrator mode |
| Reading the question files from the list box | Clicking on the questions that appear on the list box and observing the change to the labels displaying the score and question contents | Displays corresponding question and score | Displays corresponding question and score | N/A |
| Export feature | Clicking the export menu strip item | Exported txt file with proper format created | Exported txt file with proper format created | N/A |
| Export feature with no questions saved | Clicking the export menu strip when no questions are saved | Empty exported txt file made | Crash | Fix later, add existence check |
| Sort feature | Clicking the sort menu strip item | Questions in the list box are sorted in alphabetical order | Questions in the list box are sorted in alphabetical order | N/A |
| Search menu strip | Clicking the search menu strip item | Opens up frmSearch | Opens up frmSearch | N/A |
| Deleting when no question is selected | Clicking the delete menu strip item when no question is selected in the list box | Message box stating that nothing was selected | Nothing | Fixed nested statement |
| Deleted when a question is selected | Selecting a question in the list and clicking the delete menu strip item | Question is deleted | Error stating that the file is being used by another program | Unable to be fixed |
| Deleting all questions | Clicking the delete all menu strip item | All questions are deleted | All questions are deleted | N/A |
| Tag menu strip | Clicking the add tag menu strip | frmAddTag opens | frmAddTag opens | N/A |
| Creating a typical tag | Inputting ‘tag1’ into the tag text box | ‘tag1’ is added to the tag text file | ‘tag1’ is added to the tag text file | N/A |
| Creating an unusual tag | Inputting ‘asf fhw621!’ into the tag text box | ‘asf fhw621!’ is added to the tag text file | ‘asf fhw621!’ is added to the tag text file | N/A |
| Refresh list | Clicking the refresh list button | List box is updated with the latest questions from the files | List box is updated with the latest questions from the files | N/A |
| Exit button | Clicking the exit button | Program closes | Program closes | N/A |
| Add question feature | Clicking the add question menu strip item | frmAddModifyQuestion opens | frmAddModifyQuestion opens | N/A |
| Modify question feature | Clicking the modify menu strip item when a question is selected | frmAddModifyQuestion opens with the text boxes auto filled with the corresponding values from the question selected | frmAddModifyQuestion opens with the text boxes auto filled with the corresponding values from the question selected | N/A |
| Modify question feature when no question is selected | Clicking the modify menu strip item when no question is selected | Message box stating that no question is selected | Nothing | Added message box to an else statement |
| Study button | Clicking the study button | Message box asking the user to select which question type they wish to study | Message box asking the user to select which question type they wish to study | N/A |

**frmSearch**

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| --- | --- | --- | --- | --- |
| What was tested | How was it tested | Expected result | Actual result | Changes made if needed |
| Null search term (name) | Entering nothing for the search term when searching by name | No results | All questions added to results | Added existence check |
| Extremely large search term | Inputting ‘1e10’ for the search term | No results (given that no saved question contains it) | No results | N/A |
| Valid search term | Inputting ‘Name’ as the search term | Results with questions that have ‘Name’ in its name | Results with questions that have ‘Name’ in its name | N/A |
| Null tag search | Selecting no tag for the search term | No results | All questions added to the results | Added existence check |
| Searching a tag with no questions saved to it | Selecting the tag ‘asf fhw621!’ | Message box stating no results were found | Message box stating no results were found | N/A |

**frmAddModifyQuestion**

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| --- | --- | --- | --- | --- |
| What was tested | How was it tested | Expected result | Actual result | Changes made if needed |
| Changing question type | Changing the drop-down box selected item for the question type | Appropriate textboxes and labels are displayed | Appropriate textboxes and labels are displayed | N/A |
| Saving an empty question | Entering nothing into the fields and saving the question | An empty question is made without errors | An empty question is made without errors | N/A |
| Adding a question with the internal pointers | Entering ‘Name:’ into the name text box | Message box prompting the user to change their input | Message box prompting the user to change their input | N/A |
| Extremely large input | With a multiple-choice question, entered ‘1e10’ into all textboxes | Question was made without error | Question was made without error | N/A |
| Valid but small input | With a short answer question, entered only one character into each textbox | Question was made without error | Question was made without error | N/A |
| Editing a multiple-choice question | Clicking modify question with a multiple-choice question selected and modifying each of the fields | Question was edited correctly without error | Only the ‘name’ field was edited | To be fixed in the future/checked in the future (it may work on the other device the solution was being developed on) |
| Editing a short answer question | Clicking modify question with a short answer question selected and modifying each of the fields | Question was edited correctly without error | Question was edited correctly without error, but the drop-down box had to be changed to the correct question type first | To be fixed in the future/checked in the future (it may work on the other device the solution was being developed on) |

**frmStudy**

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| --- | --- | --- | --- | --- |
| What was tested | How was it tested | Expected result | Actual result | Changes made if needed |
| Studying short answer questions | Clicking ‘short’ on the message box asking which question type the user wishes to study | Short answer questions are presented | Short answer questions are presented | N/A |
| Studying multiple choice questions | Clicking ‘multiple’ on the message box asking which question type the user wishes to study | Multiple choice questions are presented | Multiple choice questions are presented | N/A |
| Closing the form | Clicking the close button on the window | Form is closed and frmMain is displayed | Form is closed and frmMain is displayed | N/A |
| Reaching the end of short answer questions | Answering all of the short answer questions saved | Message stating that the user has reached the end and after closing the form it opens up frmMain | Message stating that the user has reached the end and after closing the form it opens up frmMain | N/A |
| Reaching the end of the multiple-choice questions | Answering all of the multiple-choice questions saved | Message stating that the user has reached the end and after closing the form it opens up frmMain | Message stating that the user has reached the end and after closing the form it opens up frmMain | N/A |
| Giving an incorrect answer | Selecting ‘no’ when asked if the answer given was incorrect | Next question is given, and score is incremented by 1 | Error that the file is being used by another application | Unable to be fixed |
| Giving a correct answer | Selecting ‘yes’ when asked if the answer given was correct | Next question is presented | Next question is presented | N/A |