|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| What was tested | How it was tested | Expected result | Actual result | How it was fixed, if needed |
| Null input for both username and password | Leave both inputs blank and press enter | “Incorrect username or password” | Expected | n/a |
| Correct input for only username | Enter sd for name and abcd for password | “Incorrect username or password” | Expected | n/a |
| Wrong input for both username and password | Enter abcd123 for both username and password | “Incorrect username or password” | Expected | n/a |
| Correct input for both username and password | Enter sd for both username and password | Login form closes and main form opens | Expected | n/a |
| Integer overflow | Enter 1e10 for both username and password | “Incorrect username or password” | Expected | n/a |
| Exit program | Press enter and yes | Program closes | Expected | n/a |
| Cancel exiting program | Press enter and no | Program stays open | Expected | n/a |
|  |  |  |  |  |
|  |  |  |  |  |

Login testing table:

New class testing table:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| What was tested | How it was tested | Expected result | Actual result | How it was fixed, if needed |
| Creating a new class ‘CLASS\_NAME’ while there is no other classes | Using default params and ‘CLASS\_NAME’ as the name | New class named ‘CLASS\_NAME’ is created | Expected | n/a |
| Creating a new class ‘CLASS\_NAME’ while there is another class with the same name | Creating class ‘CLASS\_NAME’ with default params twice | ‘Class already exists’ | Expected | n/a |
| Creating a new class ‘CLASS\_NAME’ while there are other classes with different names | Creating dummy classes ‘a’, ’b’ and ’c’ and then creating class ‘CLASS\_NAME’, all with default params | All classes created successfully | Expected | n/a |
| Creating a new class with a name containing only integers | Create new class ‘12345’ with default params | New class named ‘12345’ is created | Expected | n/a |
| Creating a new class with a name only containing special characters | Create new class ‘!@#$%’ with default params | New class named ‘!@#$%’ is created | Expected | n/a |
| Creating a new class with a name containing integer overflow | Create new class 1e10 with default params | New class named 1000000000000000 is created | Expected | n/a |
| Creating a new class with custom normal column parameters including at least one integer column | Create new class ‘NEW\_CLASS’ with parameters of (atest,btest,ctest,dtest\_INT,) | New class named ‘NEW\_CLASS’ is created with attest, btest, ctest, dtest (integer column) is created | Expected | n/a |
| Creating a new class with custom column parameters containing integer overflow including at least one integer column | Create new class ‘NEW\_CLASS’ with parameters of (1e10, 1e10\_INT) | New class named ‘NEW\_CLASS’ is created with 10000000000 and 10000000000 (integer column) | Expected | n/a |
| Creating a new class with custom column parameters containing special characters | Create new class ‘NEW\_CLASS’ with parameters (!@#$%,^%$#!) | New class named ‘NEW\_CLASS’ is created with !@#$% and ^%$#! | Expected | n/a |
| Creating a null class | Create new class [null] with [null] parameters | ‘Enter at least 2 values’ | Expected | n/a |
| Creating a new class with no columns | Create new class ‘NEW\_CLASS’ with [null] parameters | ‘Enter at least 2 values’ | Expected | n/a |
| Creating a new class with 2 or more duplicate columns | Create new class using default parameters copied twice | ‘All columns must be unique’ | Expected | n/a |
| Exit form | Press cancel and select yes | New form closes | Expected | n/a |
| Cancel exiting form | Press cancel and select no | Form stays open | Expected | n/a |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  | Default class name and parameters:  CLASS NAME  Name  Last Name  ID\_INT  Attendence  Extension  Modified  Score\_INT  Remarks |  |  |

Main screen testing table:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| What was tested | How it was tested | Expected result | Actual result | How it was fixed, if needed |
| Adding valid column | Create column ‘new\_col’ | Column created | Expected | n/a |
| Adding null column | Create column with no input | ‘Column name cannot be blank’ | Expected | n/a |
| Adding integer overflow column | Create column 1e10 | Column created | Expected | n/a |
| Adding mixed column of integers letters and special characters | Create column ‘123abc!@#’ | Column created | Expected | n/a |
| Zero open classes | Create column ‘new\_col’ while there is no open class | ‘Create a class first’ | Expected | n/a |
| Deleting a column | Create a new class with default parameters and delete the first column | Column deleted successfully | Expected | n/a |
| Deleting a column while there is only 1 column present | Create a new class with only 1 column and delete the first column | ‘Class must have at least 1 column’ | Expected | n/a |
| Deleting when there is no class open | Press delete | ‘Create a class first’ | Expected | n/a |
| Renaming column to a valid value | Rename column ‘name’ to first name’ | Column successfully renamed | Expected | n/a |
| Rename column to a column that already exists | Rename column ‘name’ to ‘age’ which already exists | ‘Column already exists’ | Expected | n/a |
| Rename column to a column that already exists but all caps | Rename column ‘name’ to ‘AGE’ | ‘Column already exists’ | Expected | n/a |
| Rename column to an integer value | Rename column ‘name’ to ‘12345’ | Column successfully renamed | Expected | n/a |
| Rename column to special characters | Rename column ‘name’ to ‘!@#$%’ | Column successfully renamed | Expected | n/a |
| Rename column to integer overflow | Rename column ‘name’ to 1e10 | Column successfully renamed | Expected | n/a |
| Rename column to null | Rename column ‘name’ to null | ‘Column name cannot be blank’ | Column successfully renamed | Added to TODO list: - prevent setting column name to null |
| Input string within string column | Input ‘abc’ into the first row of ‘name’ | Entry added | Expected | n/a |
| Input string within integer column | Input ‘abc’ into the first row of ‘score’ | ‘Enter a valid integer value’ | Expected | n/a |
| Input integer within integer column | Input 123 into the first row of ‘score’ | Entry added | Expected | n/a |
| Input integer within string column | Input 123 into the first row of ‘name’ | Entry added | Expected | n/a |
| Input integer overflow to both columns | Input 1e10 into first row of ‘name’ and ‘score’ | String: entry added  Integer: ‘Enter a valid integer value’ | Expected | n/a |
| Input special characters to both columns | Input ‘!@#$’ into first row of ‘name’ and ‘score’ | String: entry added  Integer: ‘Enter a valid integer value’ | Expected | n/a |
| Input negative integers within integer column | Input -123 into first row of ‘name’ and ‘score’ | String: entry added  Integer: entry added | Expected | n/a |
| Exit form | Press exit and select yes | All forms closes | Expected | n/a |
| Cancel exit | Press exit and select no | Process abandoned | Expected | n/a |
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Opening/saving testing table:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| What was tested | How it was tested | Expected result | Actual result | How it was fixed, if needed |
| Importing a file | Opening and selecting a file from the .xml filtered file dialog | Class successfully created | Expected | n/a |
| Canceling file import process | Opening and selecting a file then pressing cancel | File dialog closes | Expected | n/a |
| Saving (appending) a class to a file | Press file > save | ‘File saved’ | Expected | n/a |
| Saving (appending) a class to a file that has not been previously saved or imported | Press file > save | File dialog prompting user to create a new file using class name as file name | Expected | n/a |
| Saving (creating a new file) a class that has been previously saved | Press file > save as | File dialog prompting user to create a new file using class name as file name | Expected | n/a |
| Saving (creating a new file) a class that has not been saved previously | Press file > save as | File dialog prompting user to create a new file using class name as file name | Expected | n/a |
| Saving all while all classes have not been previously saved or imported | Create 3 new classes (class1,class2,class3) with default parameters Press file > save all | File dialog prompting user to create a new file using class name as file name x3 | Expected | n/a |
| Saving all while all classes have been previously saved or imported | Import 3 classes (class1,class2,class3) with any content  Press file > save all | ‘File saved’ x3 | Expected | n/a |
| Saving all while classes have a mix of saved/imported or new | Create 2 new classes (class1,class2)  Import 2 classes (class1, class2)  Press file > save all | File dialog prompting user to create a new file using class name as file name x2  ‘File saved’ x2 | Expected | n/a |
| Zero open classes | Saving, save as or save all while there are no classes open | ‘Create a class first’ | Expected | n/a |
|  |  |  |  |  |
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Search testing table:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| What was tested | How it was tested | Expected result | Actual result | How it was fixed, if needed |
| Null input | Search for nothing | ‘Search input invalid and/or no column selected’ | Expected | n/a |
| Nonexistent search target | Search for a value that does not exist within the current class | ‘Nothing found’ | Expected | n/a |
| Valid search target | Search for a value that does exist within the current class | Search for [x] in [y] column resulted in: Name: z  At row: 1 | Expected | n/a |
| Valid search target in full caps | Search for a string value that does exist within the current class, but all caps | ‘Nothing found’ | Expected | n/a |
| Valid search target with excess blank spaces before/after it | Search for a value that does exist within the current class but with the addition of 5 spaces before and after | ‘Nothing found’ | Expected | n/a |
| Integer overflow | Search for 1e10 | ‘Nothing found’ | Expected | n/a |
| Zero open classes | Open search screen while there are no classes open | ‘Create a class first’ | Expected | n/a |
|  |  |  |  |  |

Delete testing table:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| What was tested | How it was tested | Expected result | Actual result | How it was fixed, if needed |
| Deleting a class while there are multiple classes open | Create new class using default options and delete it | Class is deleted | Expected | n/a |
| Deleting a class while it is the only class open | Create a new class using default options and delete it | Class is deleted | Error thrown due to there being no classes open | TODO |
| Zero open classes | Open delete screen while there are no classes open | ‘Create a class first’ | Expected | n/a |
|  |  |  |  |  |

Sort testing table:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| What was tested | How it was tested | Expected result | Actual result | How it was fixed, if needed |
| Sorting an integer column including negatives | Sort -1,0,1,99,100 | -1,0,1,99,100 | Expected | n/a |
| Sorting a string column | Sort apple, banana, orange, pear | banana, orange, pear | Expected | n/a |
| Sorting a mix of both | Sort 1,2,3,a,b,c | 1,2,3,a,b,c | Expected | n/a |
| Sorting null column | Leave column blank | ‘Column was empty’ | Expected | n/a |
| Sorting integer column containing integer overflow | Sort 1e10,2e10 | 1e10,1e20 | Expected | n/a |
| Sorting mixed column containing special characters | Sort 1,2,3,a,b,c,!,@,# | 1,2,3,a,b,c,!,@,# | Expected | n/a |
| Sort integers in a string column | Sort 2,10,50,100 | 10,100,2,50 | Expected | n/a – this is why integer columns are an option |
| Zero open classes | Open sort screen while there are no classes open | ‘Create a class first’ | Expected | n/a |
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Stats testing table:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| What was tested | How it was tested | Expected result | Actual result | How it was fixed, if needed |
| Integer column | Integer column containing values 1,2,3,4,5,6,7,8,9,10 | Mean - 5.5 Median - 5.5 Mode: not applicable  Count - 10 Range - 9 Q1 - 3 Q3 - 8 IQR - 5 | Average: 5  Median: 6  Mode: Not applicable  Count: 10  Range: 9  Q1: 2.5  Q3: 7.5  IQR: 5 | Added to TODO list |
| String column | String column containing values a,b,c,d,e,f,g | Calculates as expected | Expected | n/a |
| Mixed column | Mixed column containing values 1,a,2,b,3,c,4,d,5,e | Calculates as expected | Expected | n/a |
| Integer overflow | Integer column containing values 1,2,3,4,1e10 | Calculates as expected | Expected | n/a |
| Null column | Column containing nothing | ‘At least 3 values are required within the column’ | Expected | n/a |
| Only 1 value | Integer columns containing values 1 | ‘At least 3 values are required within the column’ | Expected | n/a |
| Only 2 values | Integer column containing values 1,2 | ‘At least 3 values are required within the column’ | Expected | n/a |
| 3 values | Integer column containing values 1,2,3 | Calculates as expected | Expected | n/a |
| Special column | Mixed column containing only special characters !,@,#,$,% | Calculates as expected | Expected | n/a |
| Zero open classes | Open stats screen while there are no classes open | ‘Create a class first’ | Expected | n/a |
|  |  |  |  |  |
|  |  |  |  |  |

Themes testing table

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| What was tested | How it was tested | Expected result | Actual result | How it was fixed, if needed |
| Selecting a theme different from default and applying it | Select green theme and apply | Green theme is applied for all forms | Expected | n/a |
| Selecting a theme different from default and canceling | Select green them and cancel | Green theme is applied for all forms as a preview, then reverted to default when canceled | Expected | n/a |
| Setting the theme back to default after changing it | Select theme green apply then close form. Reopen form, select default theme and apply | Green theme is applied, hen default | Expected | n/a |
| Exit form | Press enter | Themes form closes | Expected | n/a |
|  |  |  |  |  |
|  |  |  |  |  |