COMP S350F

Testing Plan Document

Group 29

Members:
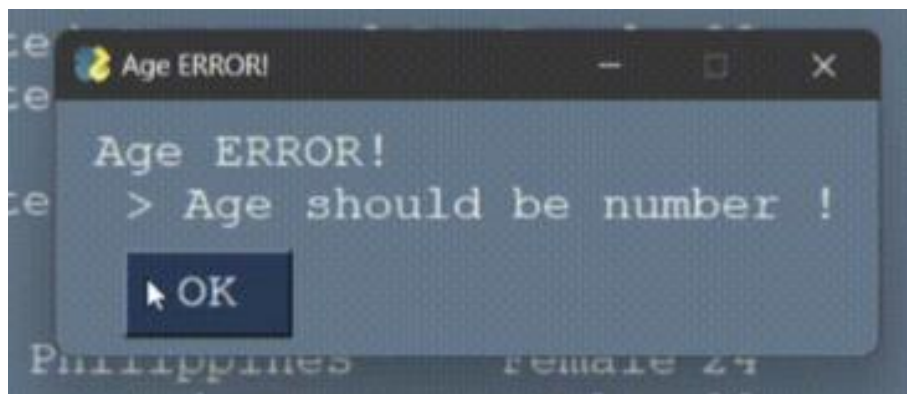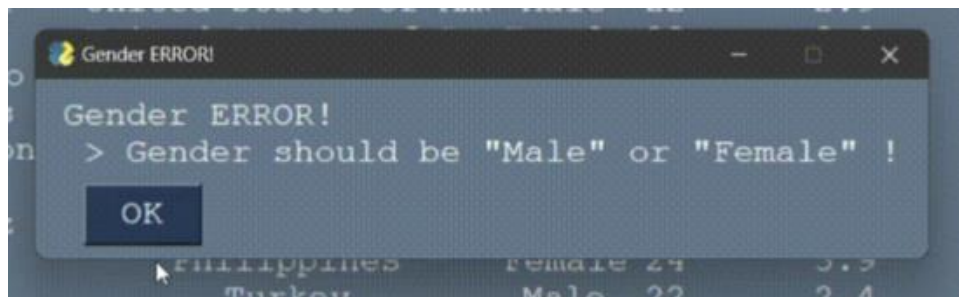
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Validation Testing

Both login and record systems have data validation done by restricting each text box to be of a specific data type. For example, a GPA score should only be in floating point numbers of a specified length, genders need to be entered as "Male" or "Female" specifically and ages can only be an integer value amongst other things. Formats, length, range of data, and presence of fields are also checked. Here is an example of checking errors in the field of "Gender" and "Age."

Client Requirement

The client requirements contain four main functions: Login Function, Sorting Function, Searching Function and Editing Function. Those functions are executed properly.

1. Login Function

This function demonstrates the ability for users to log in and provide access privileges to the proper role. For example, a student cannot edit a record, but a teacher/IT can.
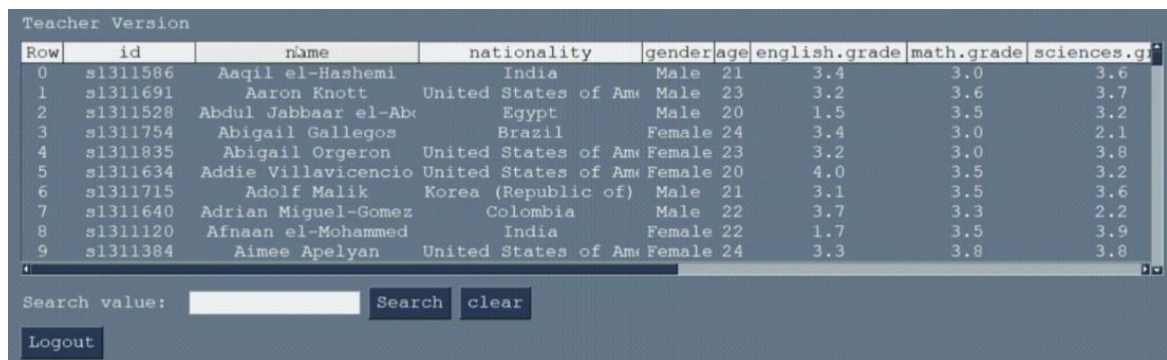

	Implementation	Expected output
Login system	Empty input and click Login button	Fail, output incorrect Account/Password and request user to enter the correct credentials.
	Using incorrect account and password to login	Fail, output incorrect Account/Password and request user to enter the correct credentials.
	Using different accounts to login to other pages/roles Student -> Teacher Teacher -> Student	Fail, output incorrect authentication and request user to enter the correct credentials.

	input correct account and password then login	Success, go to the Record page
	Click the exit button	Turn off the system

2. Sorting Function

All users are allowed to sort the records. The example is demonstrated as a name sorted in ascending order. This is done by clicking the category on the white bar on top and will sort ascending order first, then descending order if clicked again.

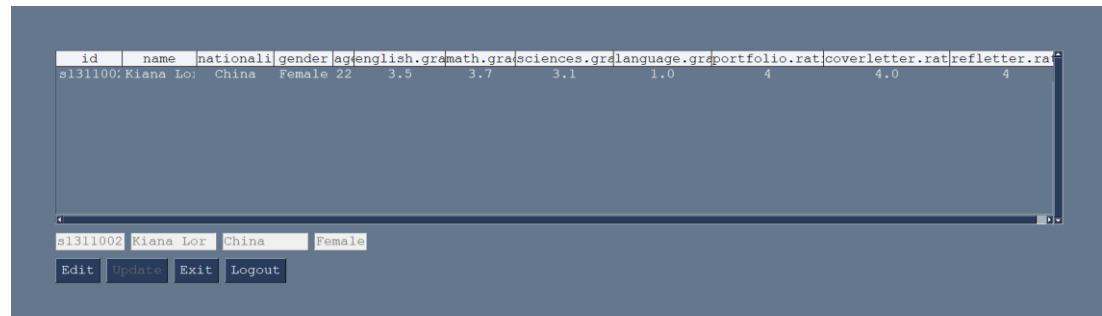|	Implementation	Expected output
	Click "name" column	Sort ascending order with "name"
Sorting Function	Click "name" column twice	Sort descending order with "name"
	Click data row	Nothing happens

3. Searching Function

All users are allowed to search for a specific data entry by typing in keywords or ids. For example, searching for the student sxxxxxxxx or a certain nationality.

	Implementation	Expected output
	Type "Lor"	Show the student which include "Lor"
Searching Function	Type character e.g. "&","$","^"	Invalid input, error window pops out
	Empty Input	Nothing happens

4. Editing Function

Specified users like Teachers and IT Technician can update a data entry by writing in the text box provided. The data in the field then overwrites the original data and the data entry is updated and added in the database. The text boxes' order corresponds to the data's layout displayed along the white bar up top. An example of "Kiana Tet" is shown for updating the nationality to "Test".

(Original Record)

(Modified Record)

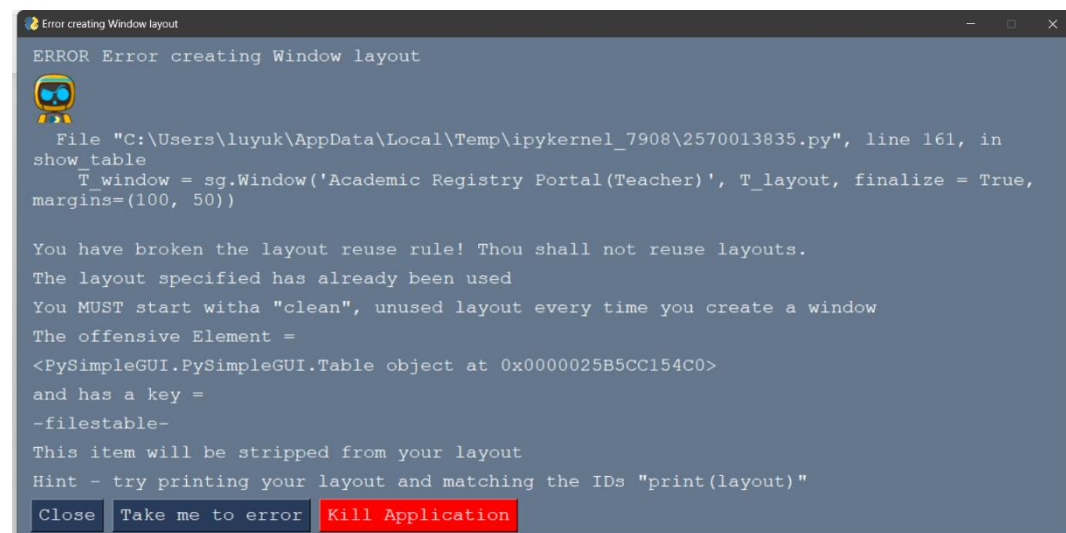|	Implementation	Expected output
Editing Function	Click the data in the table	Show that row data
	Students edit their personal information	Success, Update the change
	Students input symbol in their personal information	Fail, personal information can only be character or integer
	Students edit their academic records	Fail, Student cannot edit their academic records
	Teacher edits student's personal information	Fail, Teacher cannot edit student's personal information
	Teacher edits academic records	Success, Update the change
	IT Technicians student's personal information	Success, Update the change
	IT Technicians edits academic records	Success, Update the change
	IT Technicians edits ->Student ->Teacher account or password	Success, Update the change
	click logout button	go to the Login page

Defect Testing

Layout reuse rule bug

When a user logs out of a teacher or IT Technician account and logs back into the Teacher or IT Technician account again, it will crash the whole system.

We assumed it was caused by the presence of a loop in the GUI that keeps detecting the events, then not breaking the loop when logging out, and then breaking the layout reuse rule when logging in again.

According to this idea, changes should be made to the logout event. When the user clicks logout, it will break the loop first, and call the Login GUI. However, it was normal for the student account to log in after logging out, but the bug still existed in the teacher and IT technician.

Filtered record edit bug

After a filtered record is modified, the clear button is clicked and functioned to return data to an unfiltered record, the record will return to its original state.

We believe the occurrence of this bug is because the original data frame was complicated and filtered when we did the searching.