

Technical University of Moldova

CIM Faculty

Report

Windows Programming
Laboratory work #1

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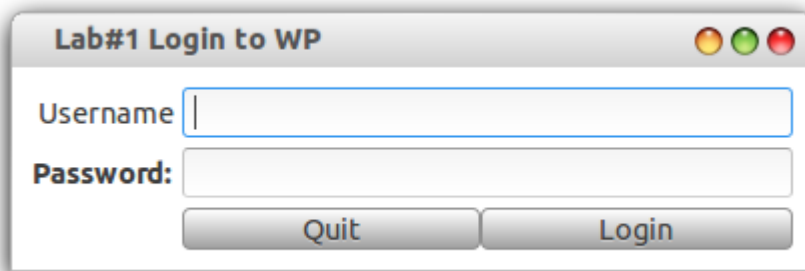
MSc Truhin Alexandr

Chisinau 2014

Tasks and Points

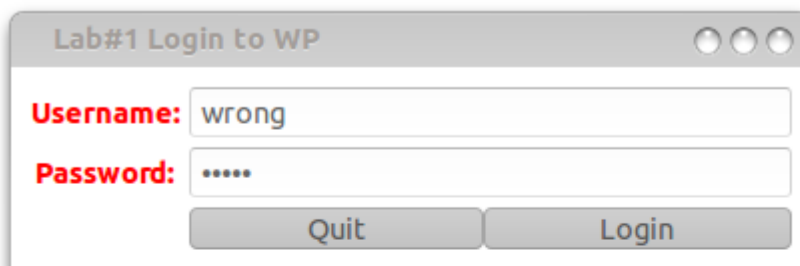
Point s	Task
0	Create a Windows application
0	Choose a Programming Style Guideline that I'll follow
0	Add 2 buttons to window
0	Add 2 text inputs to window
0	Add 2 text elements to window
1	Make elements to fit window on resize
2	Make elements to interact or change other elements
1	Change behavior of different window actions
4	Total

Login Page

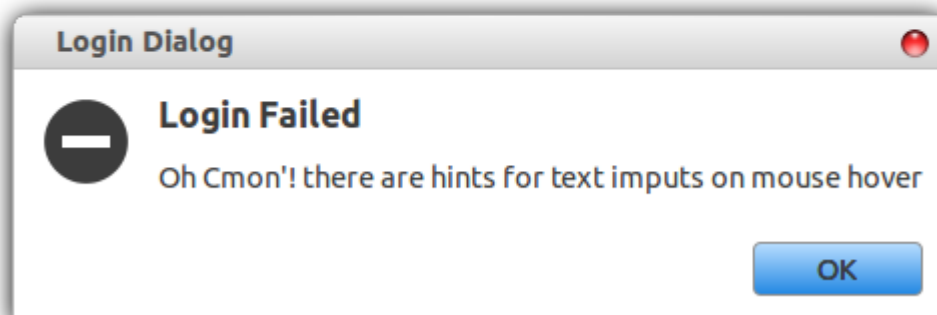


A screenshot of a macOS-style window titled "Lab#1 Login to WP". It features a "Username" label followed by a text input field, a "Password:" label followed by a password input field, and two buttons at the bottom: "Quit" and "Login".

When user inputs wrong credentials

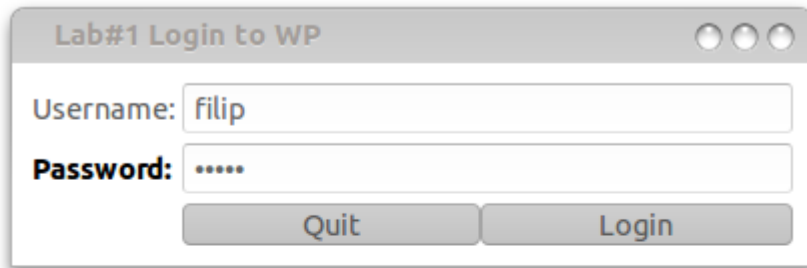


A screenshot of the "Lab#1 Login to WP" window showing incorrect login attempts. The "Username:" label is in red, and the text "wrong" is entered in the username field. The "Password:" label is also in red, and the password field contains six dots. The "Quit" and "Login" buttons remain at the bottom.

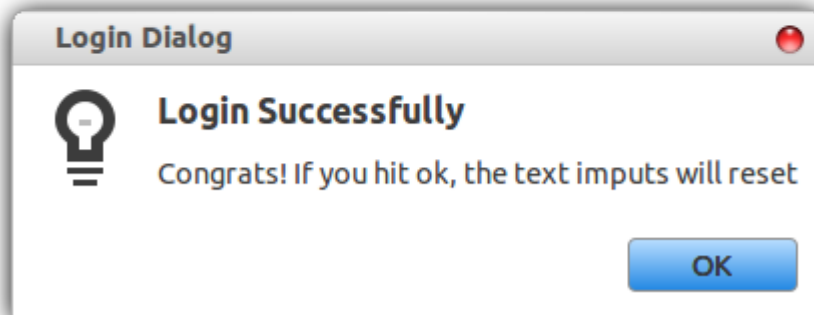


A screenshot of a macOS-style dialog box titled "Login Dialog". It features a black circular icon with a white minus sign on the left. To the right of the icon, the text "Login Failed" is displayed in bold, followed by the message "Oh Cmon! there are hints for text inputs on mouse hover". An "OK" button is located at the bottom right of the dialog.

Correct username and password

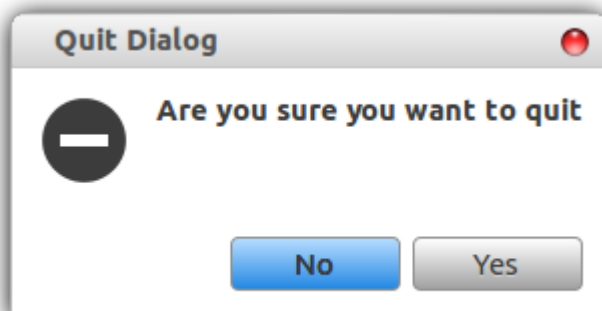


A window titled "Lab#1 Login to WP" with standard macOS window controls. It contains two text input fields: "Username:" with the text "filip" and "Password:" with masked characters ".....". Below the fields are two buttons: "Quit" and "Login".

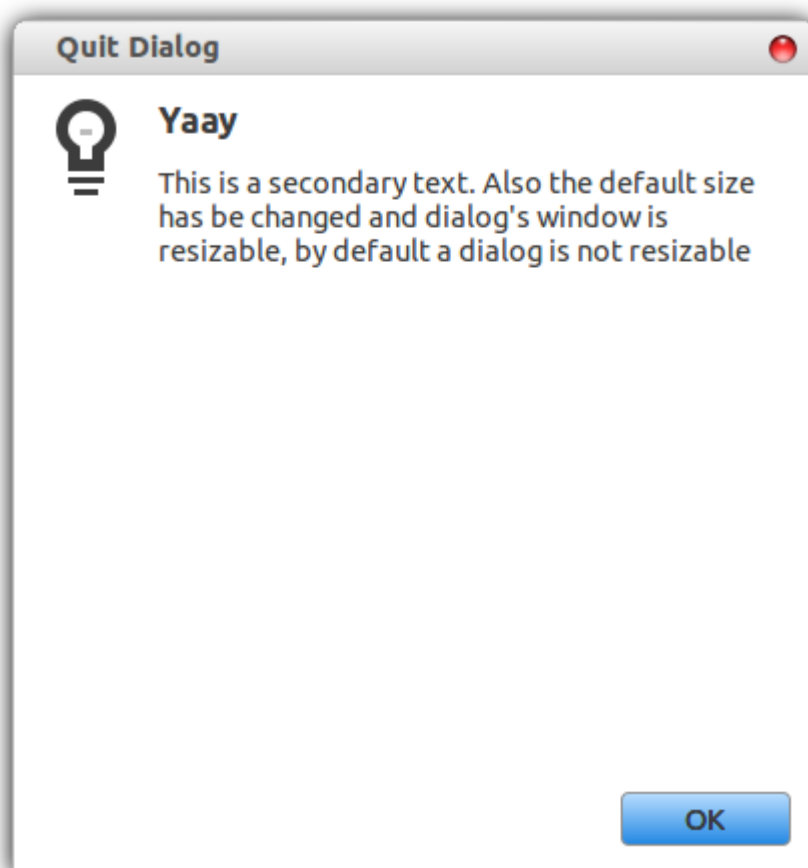


On Quit Button Clicked

if the user confirms the app will terminate



but if the user will click "No"



Conclusion

In this laboratory work I familiarized myself with basics of programming windowed applications. I created a simple application in C++ with the help of GTK, also some custom elements inside main window like buttons, labels and text inputs. Besides these custom dialogs are present. All these elements were implemented programatically, so that i understand better how everything works from the inside.

For me most parts were straightforward, as gtkmm has a very useful and complete documentation together with examples; besides this I informed myself well enough to be able to start working on this laboratory work.

Difficulties

- adding custom background to the main window.
- override close and minimize default buttons
- as far as i understood, gtkmm does not let custom styles for buttons to be written

programmatically. There are two not very elegant workarounds for this:

1. Create label, set it's background as button, and implement a signal_click (visually it would look and act like a button)
2. Import custom styles from a CSS file which will contain all button's properties

Bibliography

- <https://developer.gnome.org/gtkmm-tutorial/unstable/>
- <http://stackoverflow.com/>
- <http://blog.mpshouse.com/>

Compiling The Project

The Program can be compiled by executing the following commands in terminal:

```
g++ mywindow.cpp mywindow.h main.cpp -o lab1 `pkg-config gtkmm-3.0 --cflags --libs`  
./lab1
```

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