

FACULTY OF COMPUTERS, INFORMATICS AND MICROELECTRONICS

TECHNICAL UNIVERSITY OF MOLDOVA

WINDOWS PROGRAMMING (ANDROID)

LABORATORY WORK #2

**Advanced Form Elements. Child Windowses.
Basics of Working With Keyboard.**

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Laboratory work #2

1 Purpose of the laboratory

Gain knowledge about Advanced Form Elements, Child Windowses and Working With Keyboard.

2 Laboratory Work Requirements

– **Basic Level (grade 5 - 6) you should be able to:**

- a) Create a Windows application what will display a dialog box on some event (ex. on clicking some button)
- b) Add a system menu to your application with at least 3 items (add actions to that items)
- c) On windows resize, text should reflow and be in window's middle (vertically and horizontally)
- d) Hook keyboard input. Add 2 custom events for 2 different keyboard combinations (ex. change window background on ctrl+space)

– **Normal Level (grade 7 - 8) you should be able to:**

- a) Realize the tasks from *Basic Level*.
- b) Add a scroll bar that will change any visible parameter of any other element (color of a text) OR other 2 scroll bars that will manage main window size or position

– **Advanced Level (grade 9 - 10) you should be able to:**

- a) Realize the tasks from *Normal Level*.
- b) Customize your application by adding an icon and using different cursor in application
- c) Add a listbox and attach some events when any element is accessed (clicked)

– **for Bonus Point Tasks :**

- a) Use a scroll bar to scroll through application working space. Scroll should appear only when necessary (eg. when window width is smaller than 300px)

3 Laboratory work implementation

3.1 Tasks and Points

- a) Create a Windows application what will display a dialog box on some event (ex. on clicking some button)
- b) Add a system menu to your application with at least 3 items (add actions to that items)
- c) Hook keyboard input. Add 2 custom events for 2 different keyboard combinations (ex. change window background on ctrl+space)
- d) Add a scroll bar that will change any visible parameter of any other element (color of a text)
OR other 2 scroll bars that will manage main window size or position
- e) Customize your application by adding an icon and using different cursor in application
- f) Add a listbox and attach some events when any element is accessed (clicked)

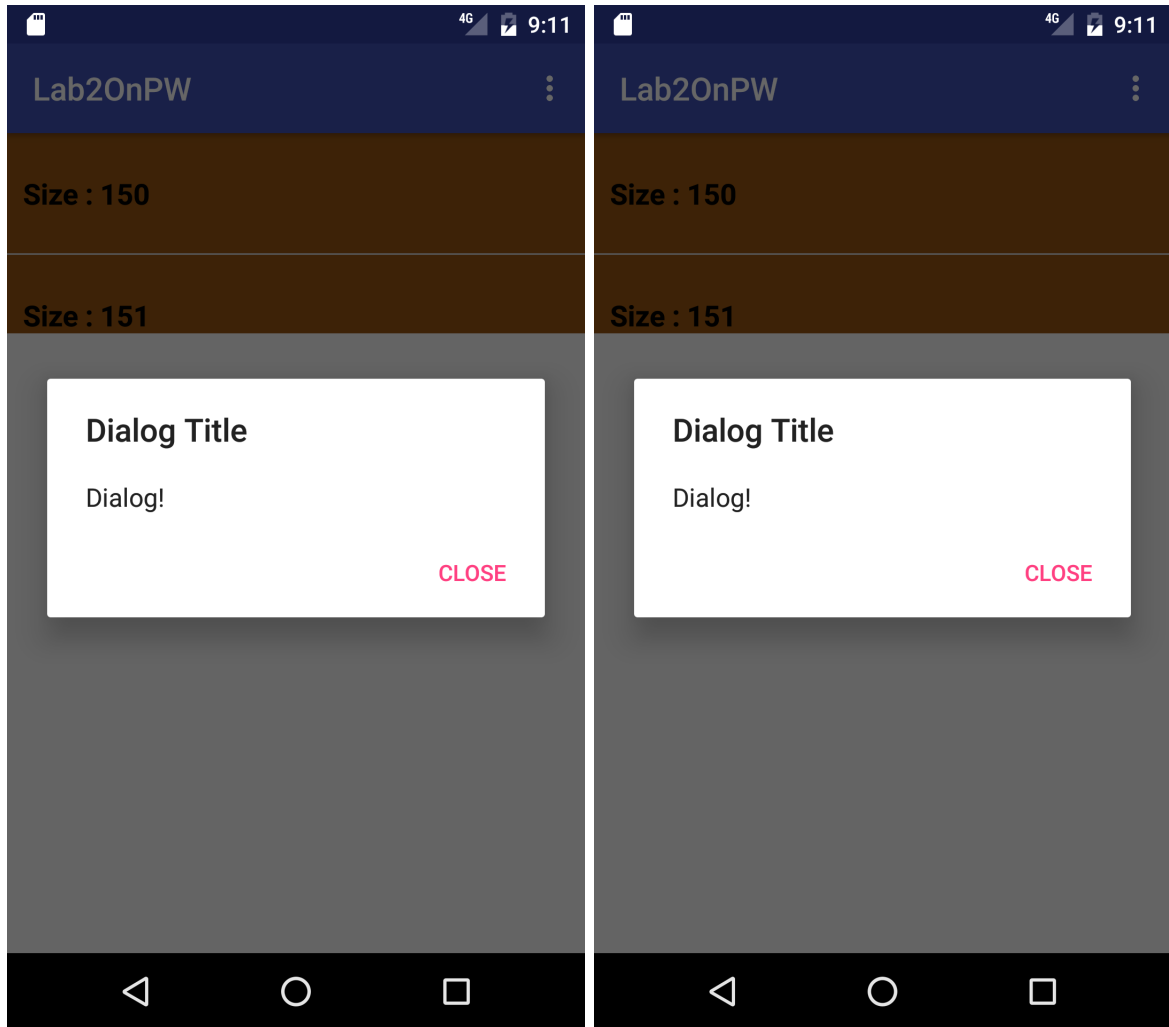
3.2 Laboratory work analysis

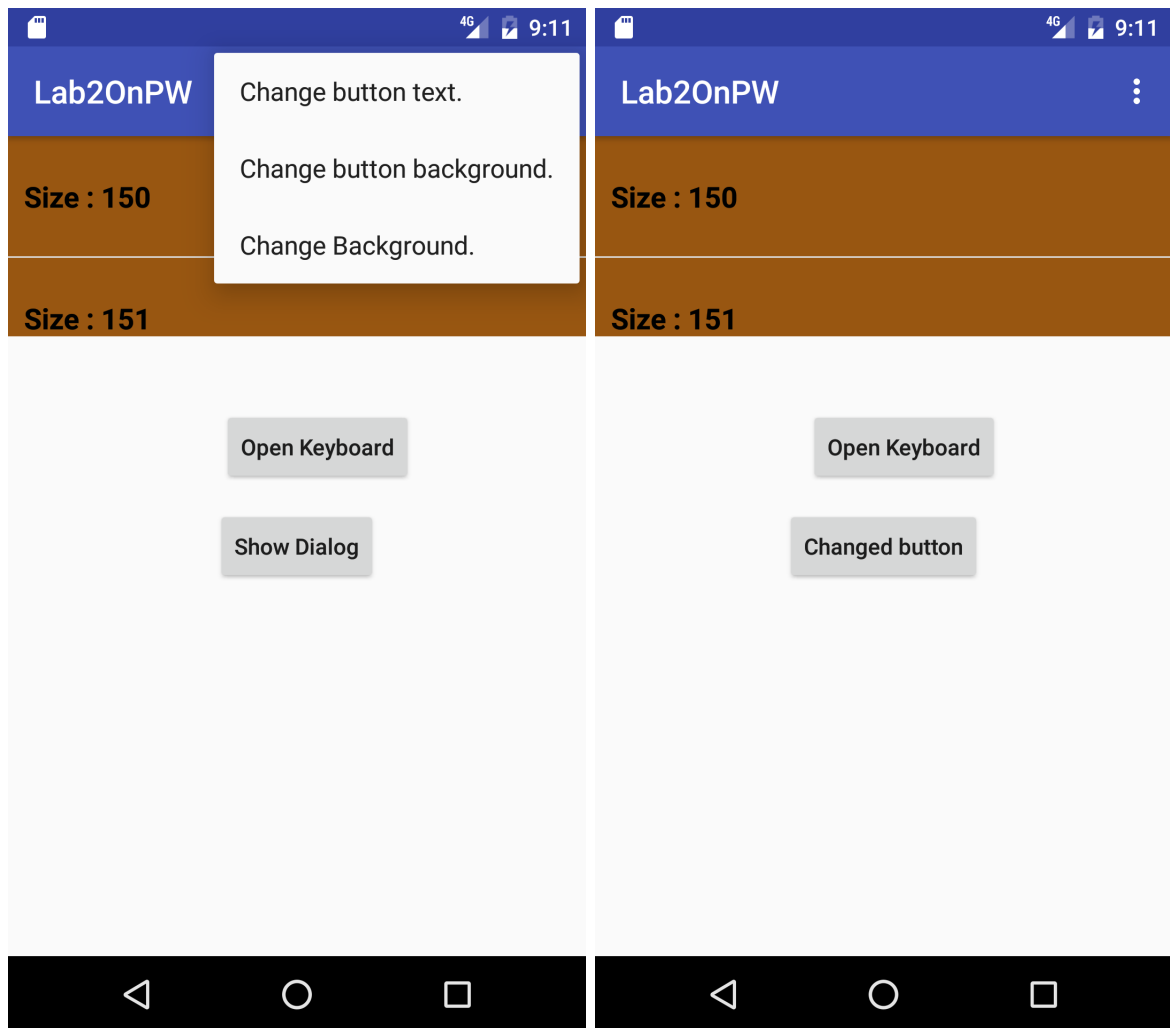
Link to my GitHub repository :

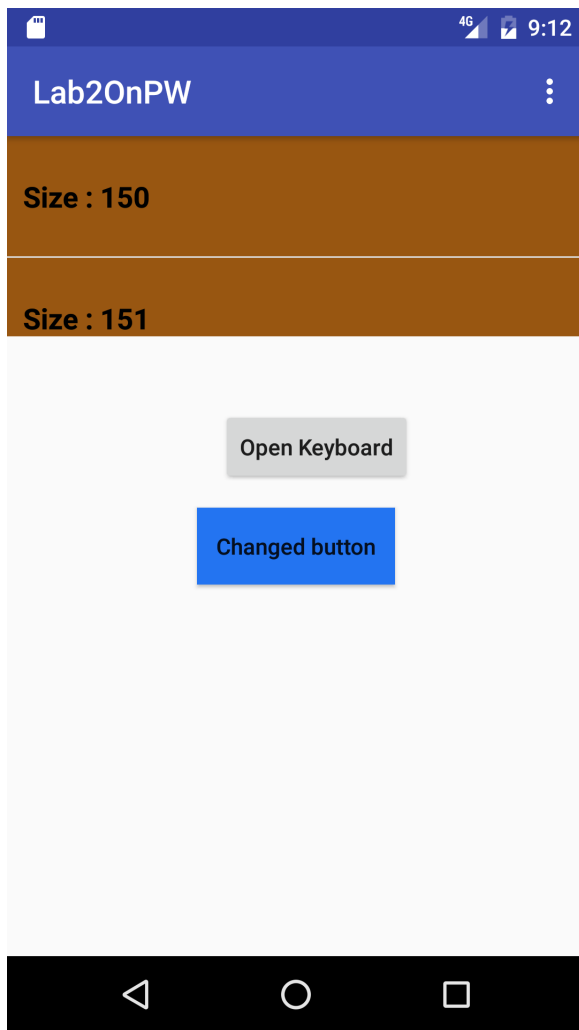
https://github.com/stoicadan1995/WP/tree/master/LAB_2/Lab2OnPW

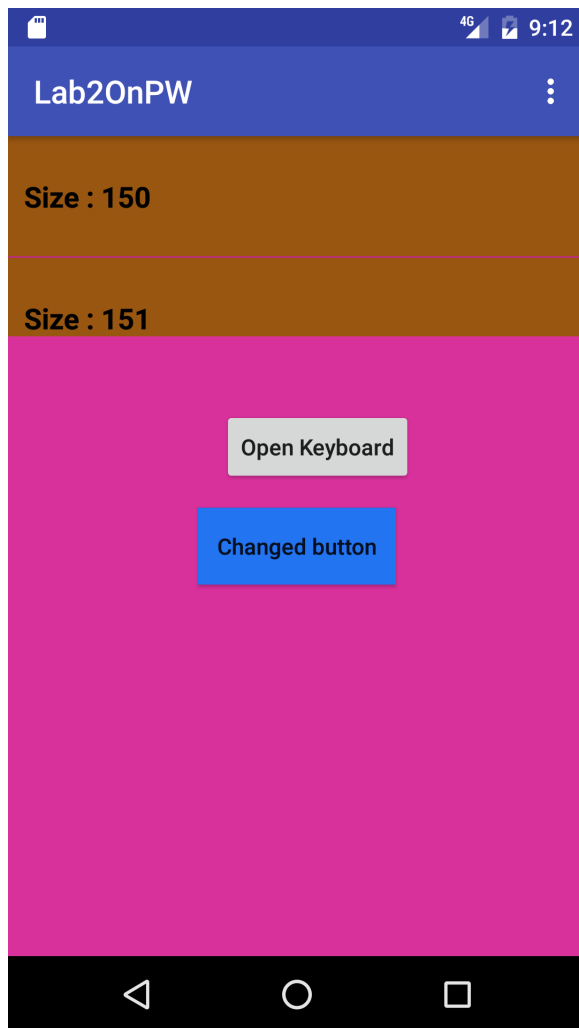
My application has following features : it has two buttons centered in the middle of the application, on clicking one of these buttons open a dialog another one hooks keyboard input, pressing key "q" will the color of 1 of the buttons, pressing key "w" will do the same thing, it also has a custom menu with 3 buttons, one changes the text, another one changes the color of the button and the last one changes the background of the application, also i have developed a list-view which displays the info about the sizes of an object.

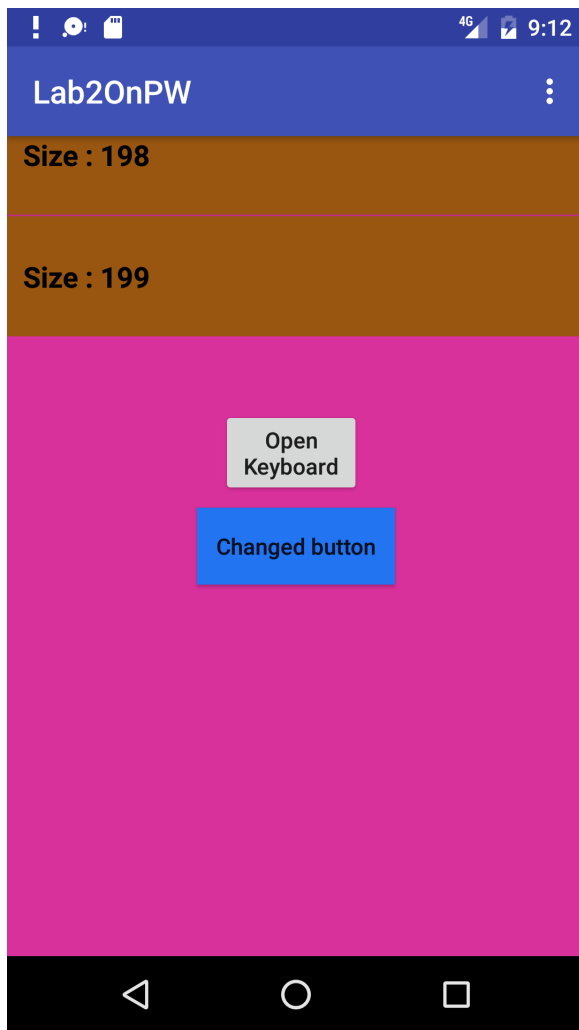
3.3 Prove your work with screens

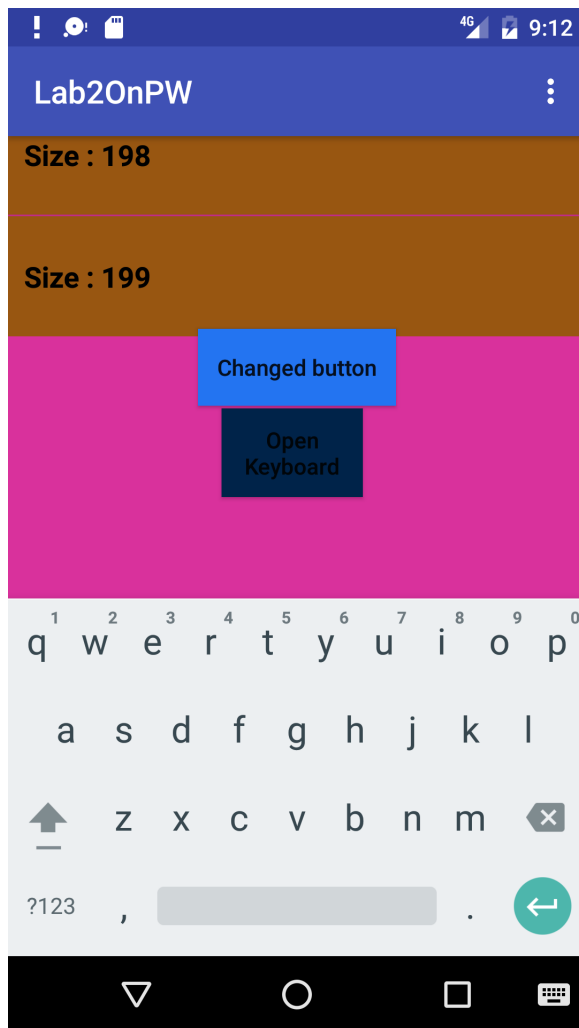


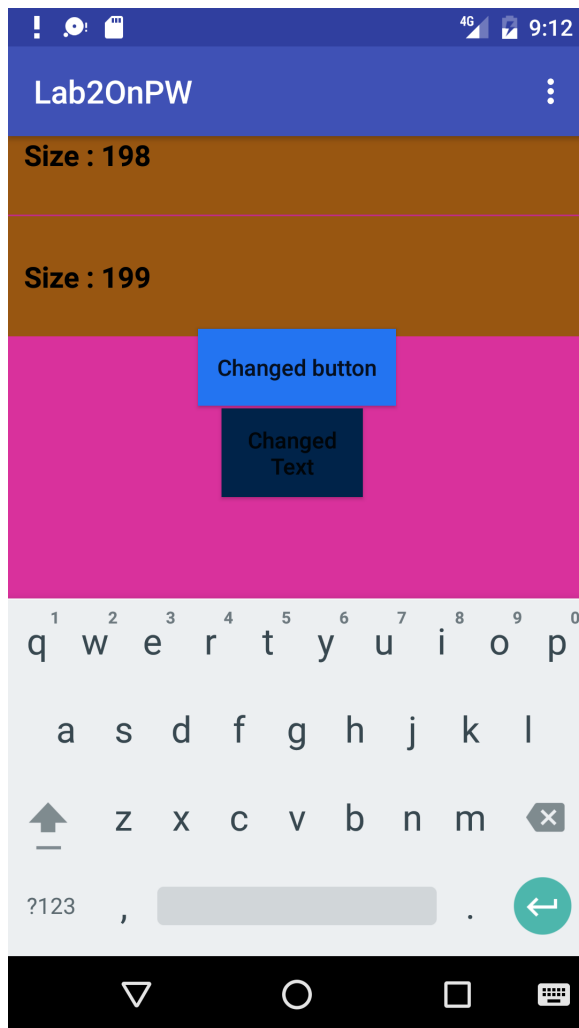












Conclusions

In this laboratory work i have improved my previous skills gathered in laboratory work n.1 and have show some preety useful features that are present in Android such as menu button ,list-view and so on , after this work i can tell that progress in application development has increased considerably offering developers a big variety of possibilities to operate with.

References

- 1 Android Developers Guide, *official page*, <https://developer.android.com/guide/index.html>
- 2 StackOverflow, *official page* , <http://stackoverflow.com/>
- 3 LaTeX Tutorial, *youtube page*, <https://www.youtube.com/watch?v=SoDv0qhyysQ>