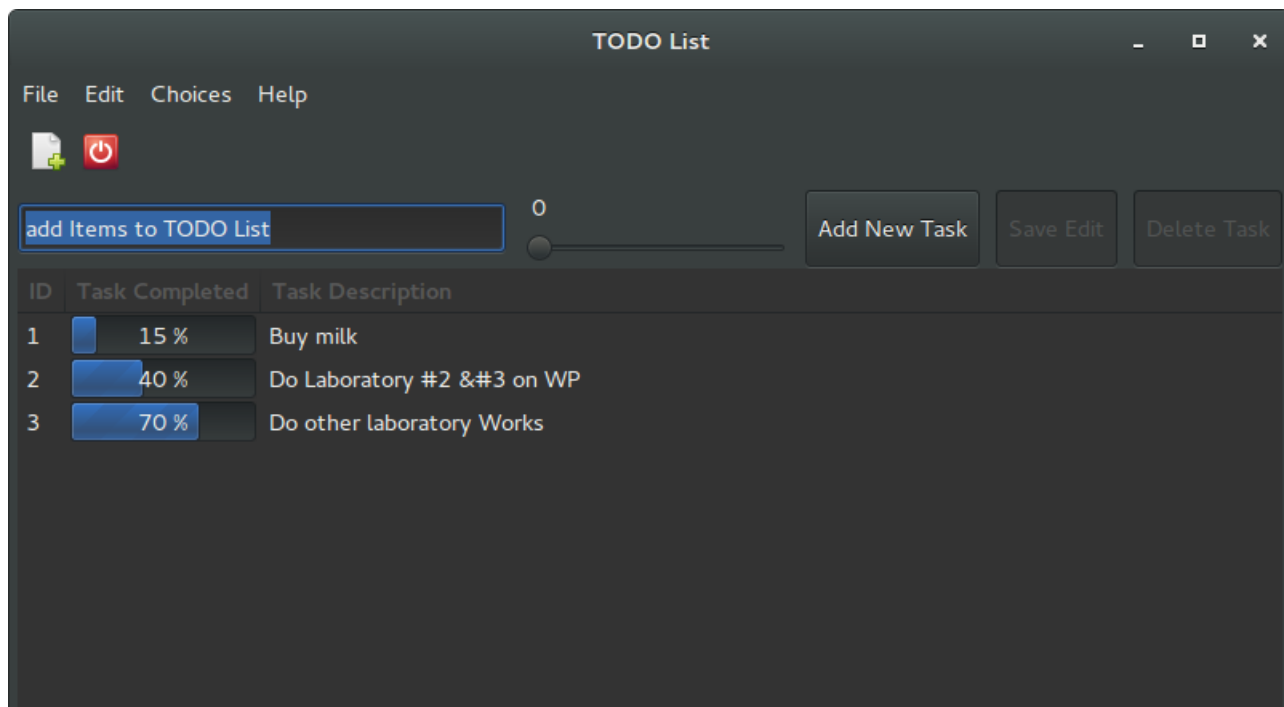**Laboratory Work #2 on Windows Programming**

Mandatory Objectives

- Display a dialog box on some event (ex. on clicking some button)
- Add a system menu to your application with at least 3 items (add actions to that items)
- Add a scroll bar that will change any visible parameter of any other element (color of a text)
- Hook keyboard input. Add 2 custom events for 2 different keyboard combinations (ex. change window background on ctrl+space)

Objectives With Points

- Add a listbox and attach some events when any element is accessed (clicked) **(2 pt)**
- Add 2 scroll bars that will manage main window size or position **(1 pt)**
- Customize your application by adding an icon and using different cursor in application **(1 pt)**
- Use a scroll bar to scroll through application working space. Scroll should appear only when necessary (eg. when window width is smaller than 300px) **(1 pt)**
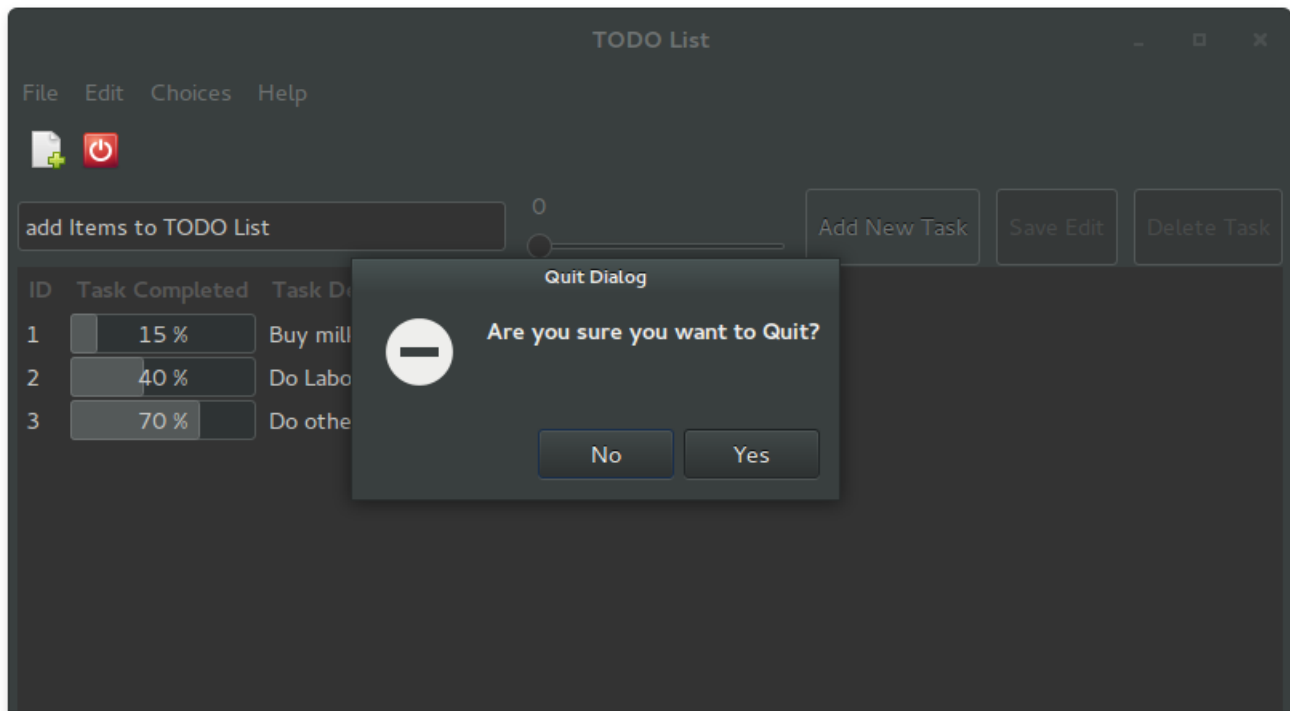
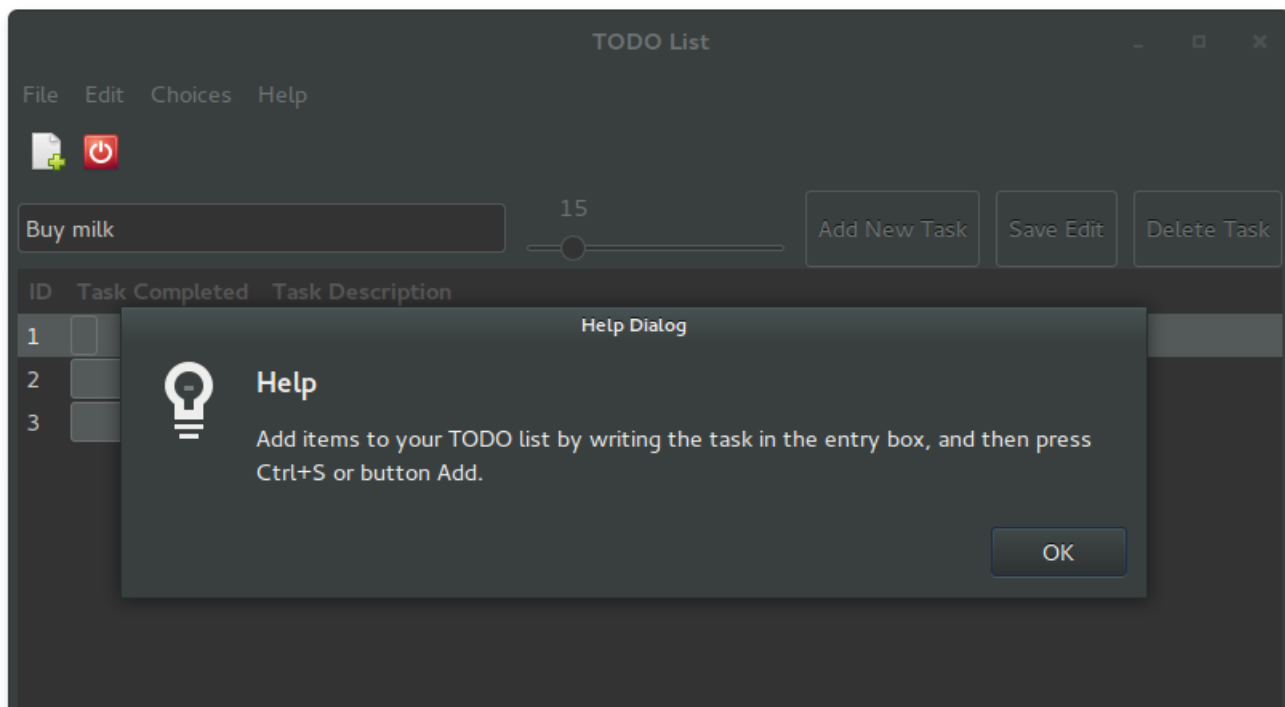**Here is a screenshot of main application window:**

Display a dialog box on some event & add a system menu with actions to items & Hook keyboard input

I implemented an "Are you sure you want to Quit?" dialog. It is triggered on:

- File > Quit
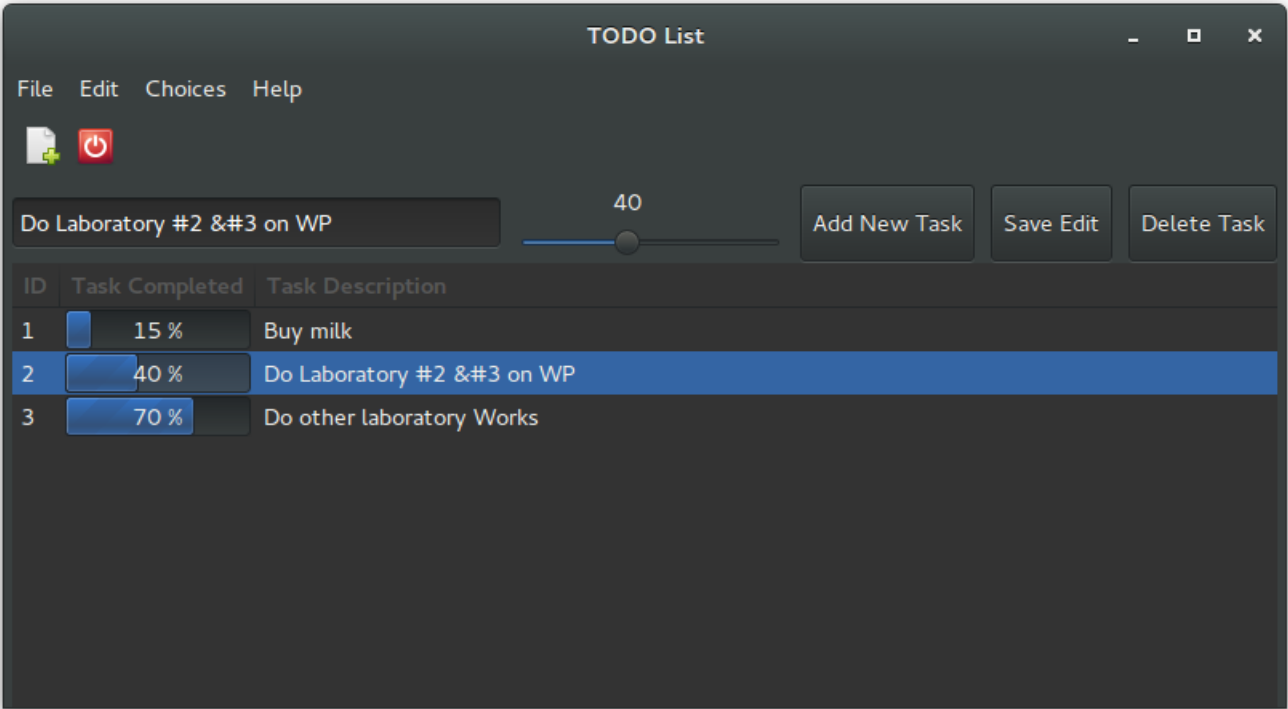- Ctrl + Q
- Click on red quit button

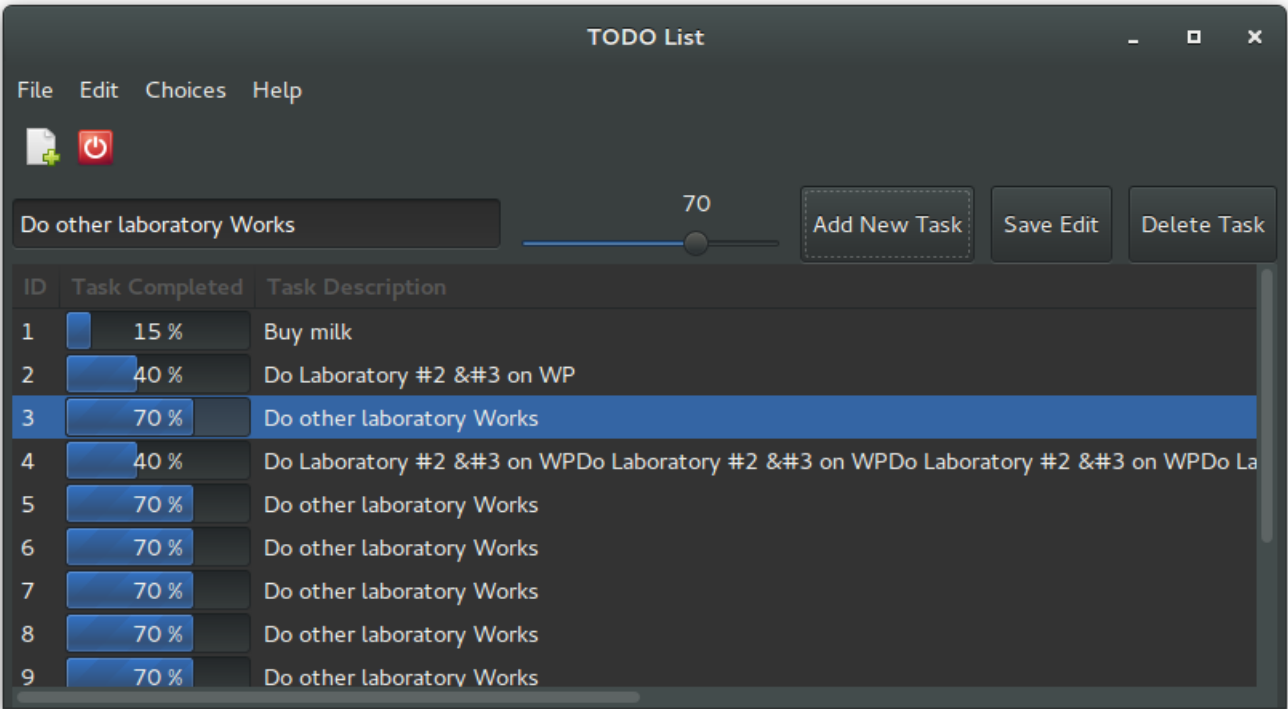Also the Help Dialog, which is triggered from top menu or F1:

Add a listbox and attach some events when any element is accessed

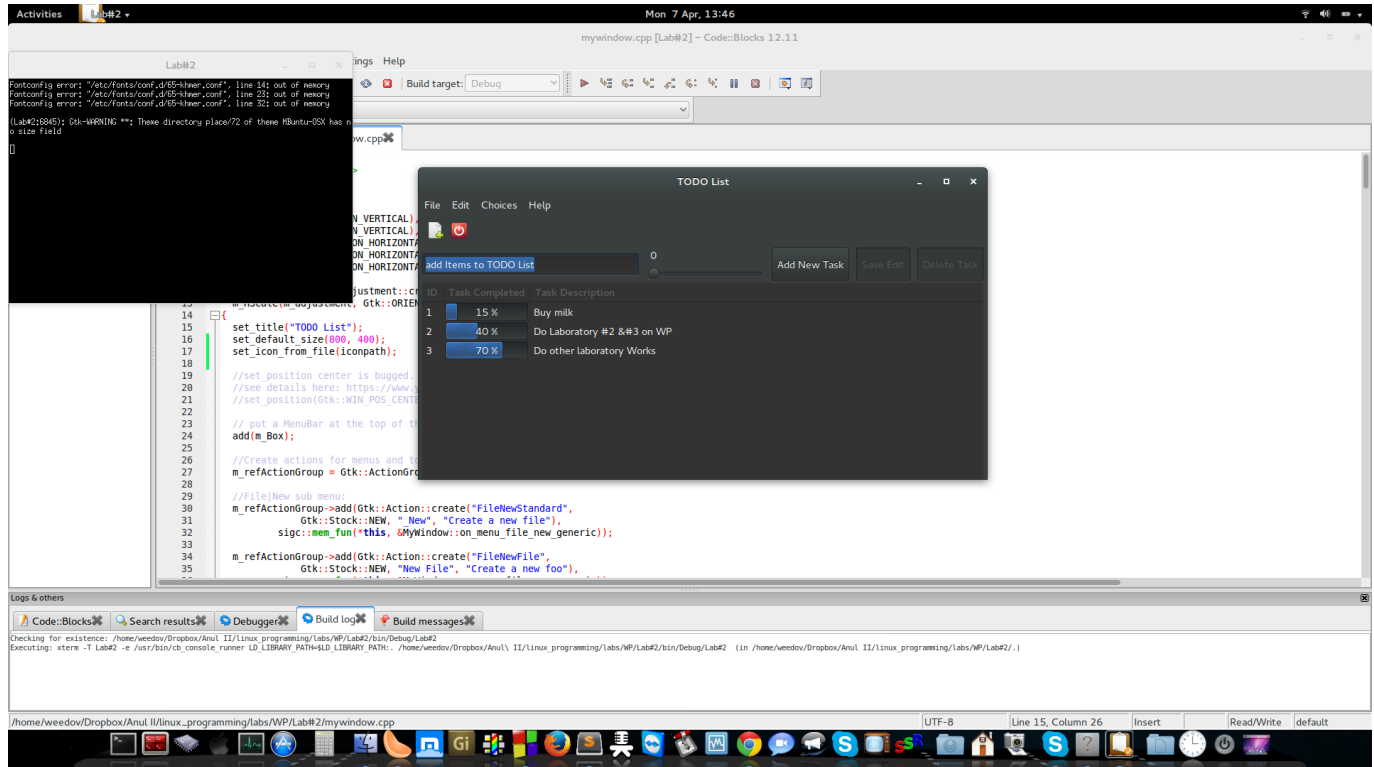The Selected Task is shown in the entry box together with the percentage when selected.

Use a scroll bar to scroll through application working space. Scroll should appear only when necessary

Scrollbars appear when items do not fit inside the window

Add icon to application

There is a icon in the top left corner, as well as in the bottom dock.

Additional Features

There are more features which could not be shown in screenshots, so here is a video:

https://www.youtube.com/watch?v=ob12A8gjJHI

Conclusion

In this laboratory work I understood how to implement more specific features to an application in gtkmm. Unfortunatelly, gtk's support is extremely awful, so I had to read a lot of documentation in order to understand how things work rather than implementing the solution already found by someone else before me. In this application I arranged the elements better, in another way, which gives the possibility to position the elements and write their properties easier.