

## Project Structure:

- Project Files
  - **qt\_uebung.pro**: Qt-project file
- C++-Files
  - **cpuinforeader.h**: contains the definition of the class "CPUinfoReader" and all functions necessary to process the file "/proc/info" and to supply the gathered information to QML
  - **main.cpp**: the main file instantiates the application and the CPUinfoReader and connects both objects. Runs the application.
- QML-Files
  - **main.qml**: defines the layout of the application. Contains the path to /proc/cpuinfo as a property. As data is gathered by calling the "Q\_INVOKABLE" functions from cpuinforeader.h
  - **ColorBox.qml**: a styled box containing text, the main element of the layout
  - **StyledButton.qml**: the definition of the buttons used in the project. Uses ColorBox.qml
  - **StatusText.qml**: a text field for displaying information
  - **ListEntryBox.qml**: a preliminary version of the list elements used for displaying the information read from /proc/cpuinfo. Uses ColorBox.qml
  - **ExpandableEntry.qml**: A list element with two different states: The default state is identical to ListEntryBox.qml. By clicking on the element, a "expanded" state is triggered and more information is displayed. Necessary to display information that does not fit into the regular ListEntryBox.qml-layout. Uses ColorBox.qml

## Functions of cpuinforeader.h:

In the following, "property" refers to the individual items of information given in /proc/cpuinfo (e.g. "processor", "bogomips", etc.).

"Label" and "Content" refer to the left and the right side of a individual line in /proc/cpuinfo. I.e. For the line "BogoMIPS : 62.50", "BogoMIPS" is the label and "62.50" the content.

- `Q_INVOKABLE int getNumberOfEntries (int CPUnumber)`  
Returns the number of properties given for the CPU with the number "CPUnumber"
- `Q_INVOKABLE int getNumberOfCPUs ()`  
Returns the number of CPUs described in /proc/cpuinfo
- `Q_INVOKABLE QString getLabelText(int propertyNumber, int processorNumber)`  
Returns the label of the Xth property of the Yth CPU, with X – propertyNumber, Y - processorNumber
- `Q_INVOKABLE QString getContentText(int propertyNumber, int processorNumber)`  
Returns the content of the Xth property of the Yth CPU, with X – propertyNumber, Y - processorNumber
- `Q_INVOKABLE QString readCPUinfoFile(QString Filename)`  
reads and preprocesses the file /proc/cpuinfo