

Cmpe 230

Documentation for project 3:
Hexadecimal Calculator

Name: Serkan Özel

Id:2015400123

Introduction:

In this project I have written a qt based calculator. Qt is a c++ graphical user interface development environment and used widely.

Concepts:

The calculator can:

1. Work with 5 digit numbers
2. Sum, subtract, multiply, divide 2 numbers
3. Work in hexadecimal and decimal mode

Compilation:

There should be .cpp files, .h files, a .ui file and a .pro file in supplied files. You can use qt creator and qmake.

Qmake:

First, install qt on your system. Then for linux systems:

```
qmake calculator.pro  
make  
./calculator
```

That's it.

User Interface & Workflow:

Workflow:

Select a mode.

Enter a number up to 5 digits.

Press an operator button.

Enter second number.

Press = button to calculate result.

If you divide by zero or exceed the limit of the integer you get an error message box saying the situation and then you can continue.

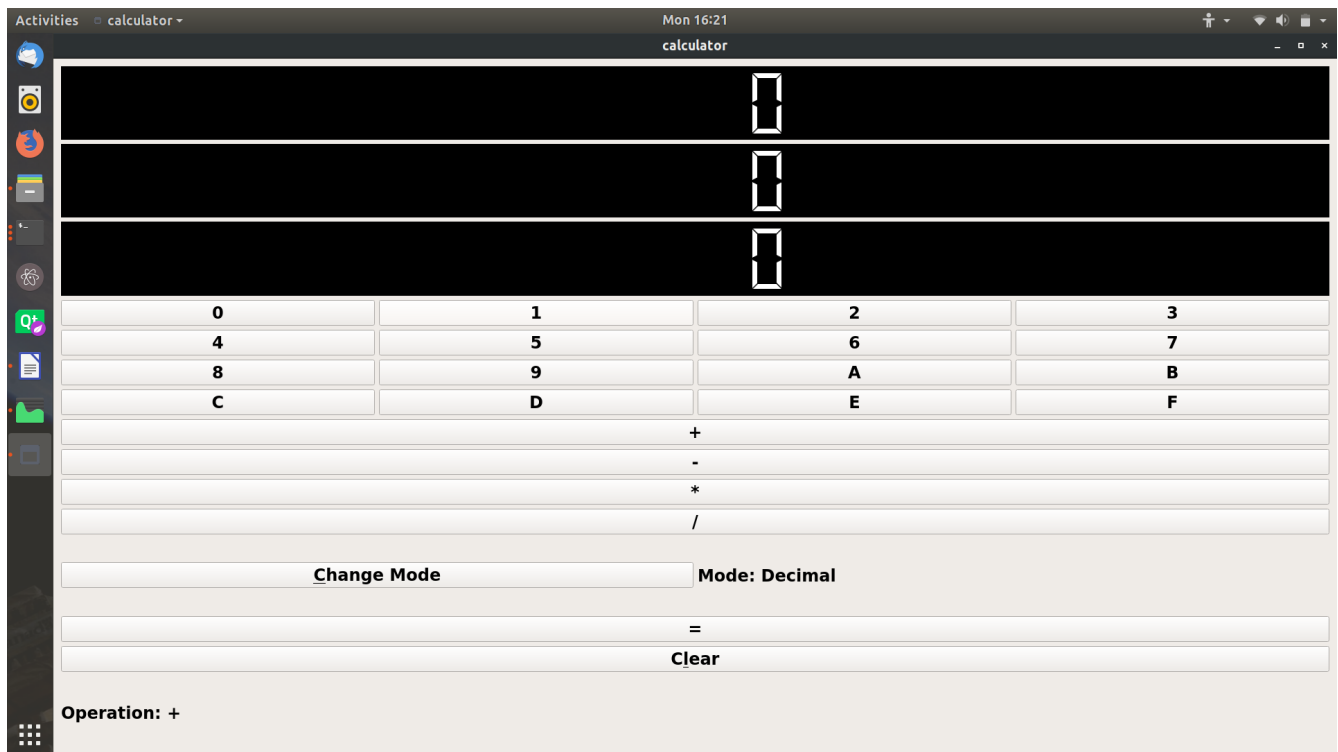
After pressing = button, number1, number2 and the operation will be resetted to 0,0,+ respectively.

You can press clear if you typed wrong. It is like equal button, also it resets the output screen.

Once you changed the mode to hexadecimal by pressing

change mode button, you can use hexadecimal digits and get result in hexadecimal form.

Current operation is shown by a label: "Operation: +"



You can close the program whenever you want by pressing the cross symbol top right. Then you need to do `./calculator` again from the terminal.

Difficulties:

Connect, signal, slot and subclassing demands a user to be get used to it. Once I get used to it, it

became faster.

Conclusion:

In this project I learned the code qt gui based programs and how qt works behind the scenes. I.e the connect system and event loop.