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QT CALCULATOR

Project Description

In this project we are expected to implement a calculator using QT that can work in hexadecimal and decimal mode. When you press “Hex” button, our calculator should operate in hexadecimal mode. When “Dec” is pressed, it should work in decimal mode. We assumed all inputs are non-negative and division operates as integer division.

Project Implementation

In this project we use QT forms for user interface. There are several fields for keeping track of the operations. Ishexa is for determining the mode of the calculator, sumSoFar is for addition operations, factorSoFar is for multiplication operations, pendingAdditiveOperator and pendingMultiplicativeOperator are for operations that come in a sequence. When the calculator is in hex mode, our calculator converts hexadecimal numbers to decimal numbers and operates in that way. It converts the result to hexadecimal and prints it. Our calculator cares about the process priority. It clears the screen when clr pressed and prints the result when equal clicked. It resets itself to zero when either hex or decimal pressed. Our algorithm is really basic, when additive operator pressed it checks if there’s any multiplicative waiting and if there is, it executes that operation first.

Conclusion and Assessment

While coding this project, we realized user interface is really important and essential for any project. Qt makes it easy to interact with the user and connect the code part to frontend part. Operations are written in C++ which is familiar to us. Our calculator cannot do any parentheses operation or any calculation in negative numbers but works very well in positive numbers. It can also be improved and be a full functioning calculator.

How To Compile & Run

In macos, open the terminal in file directory and type in;

qmake -project “QT+=widgets”

qmake calculator.pro

make

open calculator.app