**БИН2003**

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Calc.py

import sys

from PyQt5.QtWidgets import QApplication, QWidget, QLineEdit, QHBoxLayout, QVBoxLayout, QPushButton

class Calculator(QWidget):

    def \_\_init\_\_(self):

        super(Calculator, self).\_\_init\_\_()

        self.setWindowTitle('Calculator')

        self.input= QLineEdit()

        self.b\_1=QPushButton('1')

        self.b\_2 = QPushButton('2')

        self.b\_3 = QPushButton('3')

        self.b\_4 = QPushButton('4')

        self.b\_5 = QPushButton('5')

        self.b\_6 = QPushButton('6')

        self.b\_7 = QPushButton('7')

        self.b\_8 = QPushButton('8')

        self.b\_9 = QPushButton('9')

        self.b\_0 = QPushButton('0')

        self.b\_toch = QPushButton('.')

        self.b\_plus = QPushButton('+')

        self.b\_multiply = QPushButton('\*')

        self.b\_divide = QPushButton('/')

        self.b\_minus = QPushButton('-')

        self.b\_result = QPushButton('=')

        self.b\_clc = QPushButton('clc')

        self.main\_box=QVBoxLayout()

        self.input\_box=QHBoxLayout()

        self.first\_box=QHBoxLayout()

        self.second\_box = QHBoxLayout()

        self.third\_box = QHBoxLayout()

        self.fourth\_box = QHBoxLayout()

        self.main\_box.addLayout(self.input\_box)

        self.main\_box.addLayout(self.first\_box)

        self.main\_box.addLayout(self.second\_box)

        self.main\_box.addLayout(self.third\_box)

        self.main\_box.addLayout(self.fourth\_box)

        self.input\_box.addWidget(self.input)

        self.first\_box.addWidget(self.b\_1)

        self.first\_box.addWidget(self.b\_2)

        self.first\_box.addWidget(self.b\_3)

        self.first\_box.addWidget(self.b\_plus)

        self.second\_box.addWidget(self.b\_4)

        self.second\_box.addWidget(self.b\_5)

        self.second\_box.addWidget(self.b\_6)

        self.second\_box.addWidget(self.b\_minus)

        self.third\_box.addWidget(self.b\_7)

        self.third\_box.addWidget(self.b\_8)

        self.third\_box.addWidget(self.b\_9)

        self.third\_box.addWidget(self.b\_toch)

        self.third\_box.addWidget(self.b\_multiply)

        self.fourth\_box.addWidget(self.b\_result)

        self.fourth\_box.addWidget(self.b\_0)

        self.fourth\_box.addWidget(self.b\_clc)

        self.fourth\_box.addWidget(self.b\_divide)

        self.setLayout(self.main\_box)

        self.b\_1.clicked.connect(lambda: self.\_addNum('1'))

        self.b\_2.clicked.connect(lambda: self.\_addNum('2'))

        self.b\_3.clicked.connect(lambda: self.\_addNum('3'))

        self.b\_4.clicked.connect(lambda: self.\_addNum('4'))

        self.b\_5.clicked.connect(lambda: self.\_addNum('5'))

        self.b\_6.clicked.connect(lambda: self.\_addNum('6'))

        self.b\_7.clicked.connect(lambda: self.\_addNum('7'))

        self.b\_8.clicked.connect(lambda: self.\_addNum('8'))

        self.b\_9.clicked.connect(lambda: self.\_addNum('9'))

        self.b\_0.clicked.connect(lambda: self.\_addNum('0'))

        self.b\_toch.clicked.connect(lambda: self.\_addNum('.'))

        self.b\_plus.clicked.connect(lambda: self.\_operation('+'))

        self.b\_minus.clicked.connect(lambda: self.\_operation('-'))

        self.b\_multiply.clicked.connect(lambda: self.\_operation('\*'))

        self.b\_result.clicked.connect(self.\_result)

        self.b\_clc.clicked.connect(self.\_clc)

        self.b\_divide.clicked.connect(lambda: self.\_operation('/'))

    def \_addNum(self, param):

        line=self.input.text()

        self.input.setText(line+param)

    def \_operation(self,op):

        try:

            self.num1 = float(self.input.text())

            self.input.setText('')

        except:

            self.input.setText('Вы ввели текст')

        self.op=op

    def \_result(self):

        try:

            self.num2 = float(self.input.text())

            self.input.setText('')

        except:

            self.input.setText('Вы ввели текст')

        if self.num2 == 0 and self.op == '/':

            self.input.setText('На ноль делить нельзя!')

        else:

            if self.op == '+':

                self.input.setText(str(self.num1+self.num2))

            if self.op == '-':

                self.input.setText(str(self.num1 - self.num2))

            if self.op == '\*':

                self.input.setText(str(self.num1 \* self.num2))

            if self.op == '/':

                self.input.setText(str(self.num1 / self.num2))

    def \_clc(self):

        self.input.setText('')

app = QApplication(sys.argv)

win = Calculator()

win.show()

sys.exit(app.exec\_())

Результат работы:

