

31-1-6 Hroznýšovo okno

Úkol 1

```
from PyQt5.QtCore import QTimer
from PyQt5.QtWidgets import QApplication, QMessageBox
```

```
import sys
```

```
def timeEvent():
    box.setText("Budík už zvoní.")
    timer2.start(2000)
```

```
app = QApplication(sys.argv)
```

```
box = QMessageBox(text="Budík začal zvonit")
box.show()
```

```
timer = QTimer(singleShot=True)
timer.timeout.connect(timeEvent)
timer.start(2000)
```

```
timer2 = QTimer(singleShot=True)
timer2.timeout.connect(box.close)
```

```
app.exec_()
```

Úkoly 2, 3 a 4

```
from PyQt5.QtCore import QTimer
from PyQt5.QtWidgets import \
    QApplication, QWidget, QLabel, \
    QPushButton, QVBoxLayout

import sys

class Stopky(QWidget):
    def __init__(self, *args, **kwargs):

        # Inicializace QWidgetu samotného
        super().__init__(*args, **kwargs)

        # Výroba ovládacích prvků
        self.label = QLabel(self)

        self.labelStep = QLabel(self)

        self.buttonStart = QPushButton(self,
text="Start")

        self.buttonStart.clicked.connect(self.start)

        self.buttonStop = QPushButton(self,
text="Stop")
        self.buttonStop.clicked.connect(self.stop)

        self.buttonUp = QPushButton(self,
text="*10")

        self.buttonUp.clicked.connect(self.higherStep
)

        self.buttonDonw = QPushButton(self,
text="/10")

        self.buttonDonw.clicked.connect(self.lowerSt
ep)

        # Umístění ovládacích prvků
        self.layout = QVBoxLayout(self)
        self.layout.addWidget(self.label)
        self.layout.addWidget(self.buttonStart)
        self.layout.addWidget(self.buttonStop)
        self.layout.addWidget(self.labelStep)
        self.layout.addWidget(self.buttonUp)
        self.layout.addWidget(self.buttonDonw)
```

```
# Zobrazení stopek
self.setLayout(self.layout)
self.show()

def start(self):
    self.step = 1000
    self.timer = QTimer(singleShot=True)
    self.timer.timeout.connect(self.tick)
    self.timer.start(self.step)

    self.elapsed = 0
    self.updateLabel()

def stop(self):
    self.timer.stop()

def higherStep(self):
    self.updateTimer
    self.step *= 10
    self.timer.start(self.step)
    self.updateLabel

def lowerStep(self):
    self.updateTimer
    self.step /= 10
    self.timer.start(self.step)
    self.updateLabel

def updateTimer(self):
    self.timer.stop()
    self.elapsed += self.step

def tick(self):
    self.elapsed += self.step
    self.updateLabel()
    self.timer.start(self.step)

def updateLabel(self):
    self.label.setText(str(self.elapsed / 1000))
    self.labelStep.setText(str(self.step /
1000))

app = QApplication(sys.argv)
stopky = Stopky()
app.exec_()
```