Ejercicios Desarrollo de Interfaces
27-9-24   Mario Serradilla Penido

1) Ejemplo:

2) Layout 1:

```python
import sys

from PyQt6.QtWidgets import QApplication, QMainWindow, QWidget, QVBoxLayout, QPushButton, QCheckBox

from PyQt6.QtGui import QPalette, QColor


class Color(QWidget):

    def __init__(self, color):
        super(Color, self).__init__()
        self.setAutoFillBackground(True)

        palette = self.palette()
        palette.setColor(QPalette.ColorRole.Window, QColor(color))
        self.setPalette(palette)


class MainWindow(QMainWindow):

    def __init__(self):
```

```python
        super(MainWindow, self).__init__()

        self.setWindowTitle("My App")

        layout = QVBoxLayout()

        layout.addWidget(QPushButton('red'))
        layout.addWidget(QPushButton('green'))
        layout.addWidget(QPushButton('blue'))

        widget = QWidget()
        widget.setLayout(layout)
        self.setCentralWidget(widget)

app = QApplication(sys.argv)
window = MainWindow()
window.show()

app.exec()
```
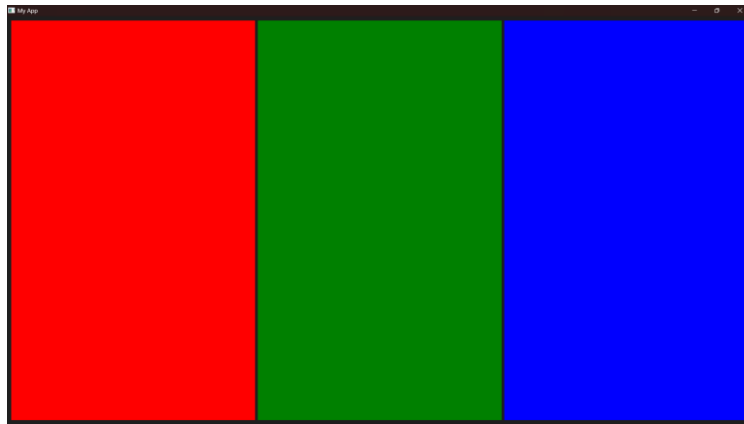
3)Ejemplo 2:

4) Layout 2:

```python
import sys

from PyQt6.QtWidgets import QApplication, QMainWindow, QWidget,
QHBoxLayout, QPushButton, QCheckBox, QLineEdit, QLabel, QVBoxLayout

from PyQt6.QtGui import QPalette, QColor


class Color(QWidget):

    def __init__(self, color):

        super(Color, self).__init__()

        self.setAutoFillBackground(True)


        palette = self.palette()

        palette.setColor(QPalette.ColorRole.Window, QColor(color))

        self.setPalette(palette)

        self.setFixedSize(20,20)


class MainWindow(QMainWindow):

    def __init__(self):

        super(MainWindow, self).__init__()
```
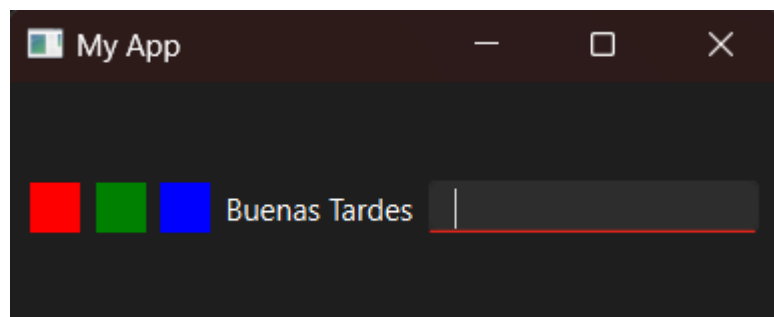
```python
        self.setWindowTitle("My App")


        layout = QHBoxLayout()

        layout.addWidget(Color('red'))

        layout.addWidget(Color('green'))

        layout.addWidget(Color('blue'))

        layout.addWidget(QLabel("Buenas Tardes"))

        layout.addWidget(QLineEdit())


        widget = QWidget()

        widget.setLayout(layout)

        self.setCentralWidget(widget)


app = QApplication(sys.argv)

window = MainWindow()

window.show()


app.exec()
```
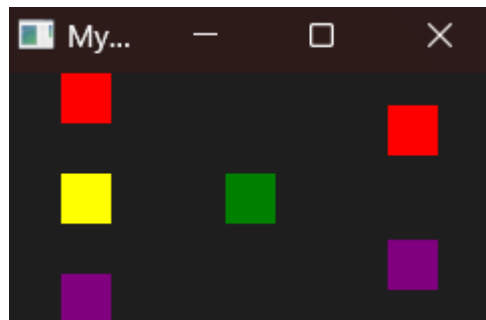
5) Ejemplo 3:

6) Layout 3:

```python
import sys

from PyQt6.QtWidgets import QApplication, QMainWindow, QWidget,
QHBoxLayout, QPushButton, QCheckBox, QLineEdit, QLabel, QVBoxLayout

from PyQt6.QtGui import QPalette, QColor


class Color(QWidget):

    def __init__(self, color):

        super(Color, self).__init__()

        self.setAutoFillBackground(True)


        palette = self.palette()

        palette.setColor(QPalette.ColorRole.Window, QColor(color))

        self.setPalette(palette)

        self.setFixedSize(20,20)


class MainWindow(QMainWindow):

    def __init__(self):

        super(MainWindow, self).__init__()
```

```python
        self.setWindowTitle("My App")

        layout1 = QVBoxLayout()
        layout2 = QHBoxLayout()
        layout3 = QVBoxLayout()

        layout1.setContentsMargins(10,10,10,10)
        layout1.setSpacing(10)

        layout2.addWidget(Color('yellow'))
        layout2.addWidget(Color('purple'))
        layout2.addWidget(Color('red'))

        layout1.addLayout(layout2)
        layout3.addWidget(Color('blue'))
        layout3.addWidget(Color('pink'))
        layout3.addWidget(Color('gray'))

        layout1.addLayout(layout3)

        widget = QWidget()
        widget.setLayout(layout1)
        self.setCentralWidget(widget)

app = QApplication(sys.argv)
window = MainWindow()
window.show()
```
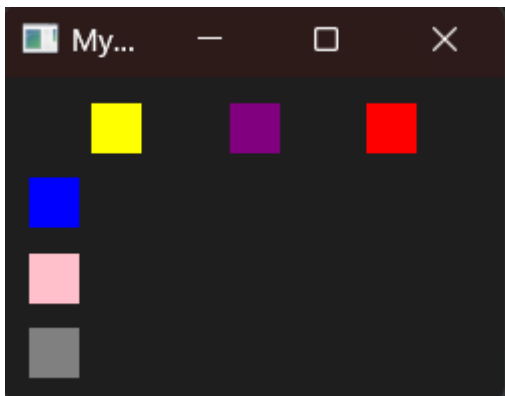
app.exec()

7) Ejemplo 4:

8) Layout 4:

```python
import sys

from PyQt6.QtWidgets import QApplication, QMainWindow, QWidget,
QHBoxLayout, QPushButton, QCheckBox, QLineEdit, QLabel, QVBoxLayout,
QGridLayout

from PyQt6.QtGui import QPalette, QColor


class Color(QWidget):


    def __init__(self, color):

        super(Color, self).__init__()

        self.setAutoFillBackground(True)


        palette = self.palette()

        palette.setColor(QPalette.ColorRole.Window, QColor(color))
```

```python
        self.setPalette(palette)


class MainWindow(QMainWindow):

    def __init__(self):
        super(MainWindow, self).__init__()

        self.setWindowTitle("My Enhanced App")

        main_layout = QVBoxLayout()

        button = QPushButton("Haz Click")
        checkbox = QCheckBox("Accepta las cookies mostro")
        text_input = QLineEdit()
        label = QLabel("¿Nombre?:")

        main_layout.addWidget(label)
        main_layout.addWidget(text_input)
        main_layout.addWidget(checkbox)
        main_layout.addWidget(button)

        color_layout = QGridLayout()
        color_layout.addWidget(Color('red'), 0, 0)
        color_layout.addWidget(Color('green'), 1, 0)
        color_layout.addWidget(Color('blue'), 1, 1)
        color_layout.addWidget(Color('purple'), 2, 1)

        main_layout.addLayout(color_layout)
```

```python
        container = QWidget()

        container.setLayout(main_layout)

        self.setCentralWidget(container)


app = QApplication(sys.argv)

window = MainWindow()

window.show()


app.exec()
```
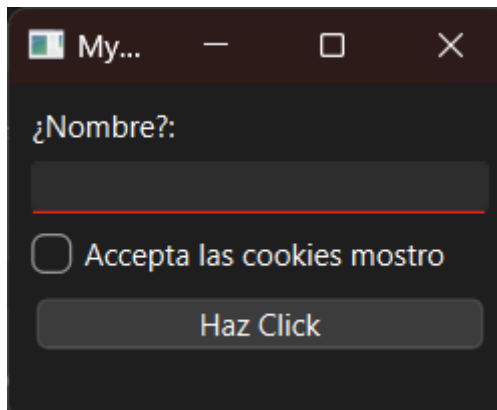

9) Layout 5:

```python
import sys

from PyQt6.QtWidgets import QApplication, QMainWindow, QWidget,
QHBoxLayout, QVBoxLayout, QPushButton

from PyQt6.QtGui import QPalette, QColor


class Color(QWidget):

    def __init__(self, color):

        super(Color, self).__init__()

        self.setAutoFillBackground(True)
```

```python
        palette = self.palette()

        palette.setColor(QPalette.ColorRole.Window, QColor(color))

        self.setPalette(palette)


class MainWindow(QMainWindow):


    def __init__(self):

        super(MainWindow, self).__init__()


        self.setWindowTitle("Vertical y Horizontal")


        main_layout = QVBoxLayout()


        button_layout = QHBoxLayout()


        button1 = QPushButton("Boton 1")

        button2 = QPushButton("Boton 2")

        button3 = QPushButton("Boton 3")


        button_layout.addWidget(button1)

        button_layout.addWidget(button2)

        button_layout.addWidget(button3)


        main_layout.addLayout(button_layout)


        color_widget = Color('cyan')

        main_layout.addWidget(color_widget)
```

```python
        container = QWidget()

        container.setLayout(main_layout)

        self.setCentralWidget(container)


app = QApplication(sys.argv)

window = MainWindow()

window.show()


app.exec()
```