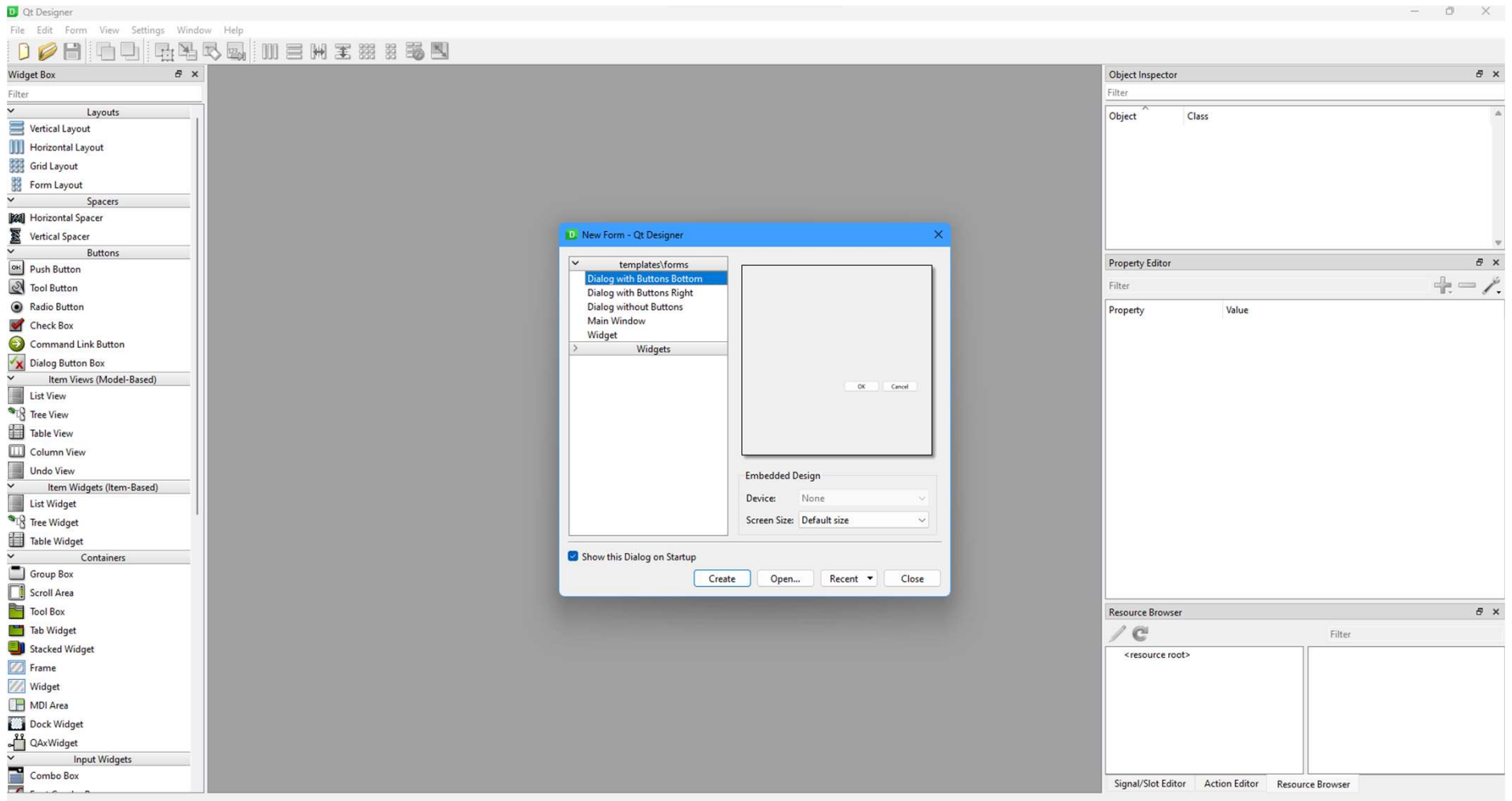


Pemrograman Desktop 7

Yonathan F. Hendrawan

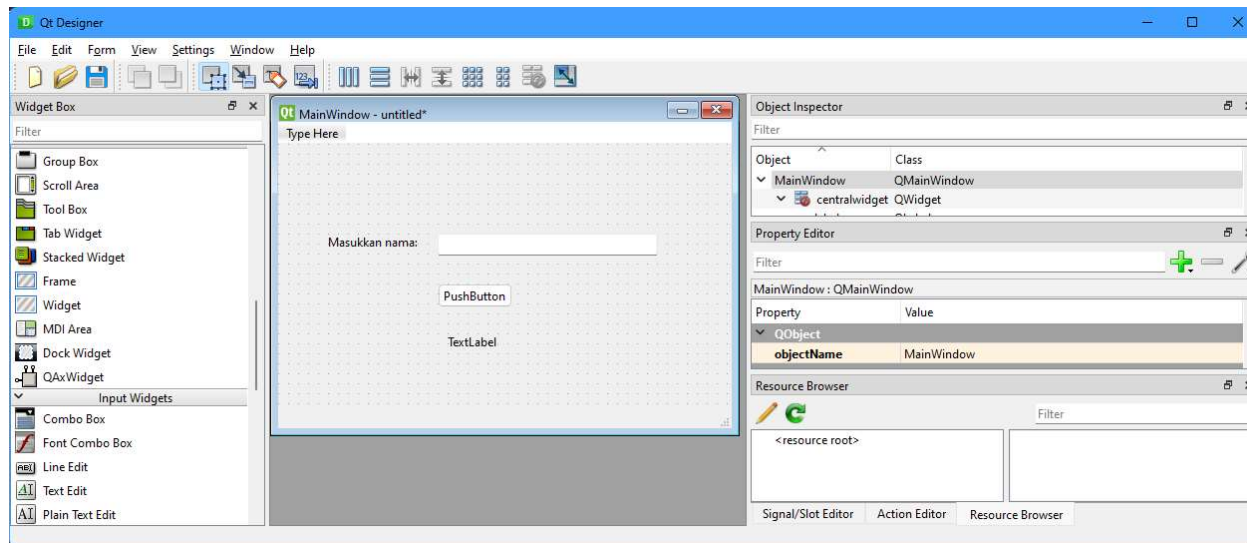
Instalasi

- Instal pyqt6: `pip3 install pyqt6`
- Instal Qt designer: `pip3 install pyqt6-tools`
 - Lokasi Qt designer.exe:
`C:\Users\Yonathan\PycharmProjects\PemrogDesktop\venv\Lib\site-packages\qt6_applications\Qt\bin`



Qt Designer

- Select Main Window untuk pilihan templates/forms
- Akan dibuatkan jendela tempat kita meletakkan widget
 - Jendela bisa di-resize



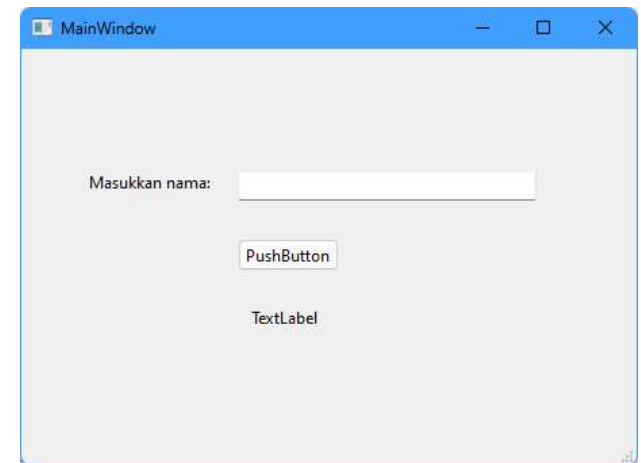
- Tiap komponen bisa diatur attribute-nya

Qt Designer

- Simpan dengan nama: test1.ui
- Copy file test1.ui ke PyCharm
- main.py:

```
import os
import sys
from PyQt6 import QtWidgets, uic
basedir = os.path.dirname(__file__)
```

```
app = QtWidgets.QApplication(sys.argv)
window = uic.loadUi(os.path.join(basedir, "test1.ui"))
window.show()
app.exec()
```



Qt Designer - alternatif

```
import os
import sys
from PyQt6 import QtCore, QtGui, QtWidgets, uic
basedir = os.path.dirname(__file__)

class MainWindow(QtWidgets.QMainWindow):
    def __init__(self, *args, **kwargs):
        super().__init__(*args, **kwargs)
        uic.loadUi(os.path.join(basedir, "mainwindow.ui"), self)

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

Qt Designer - alternatif

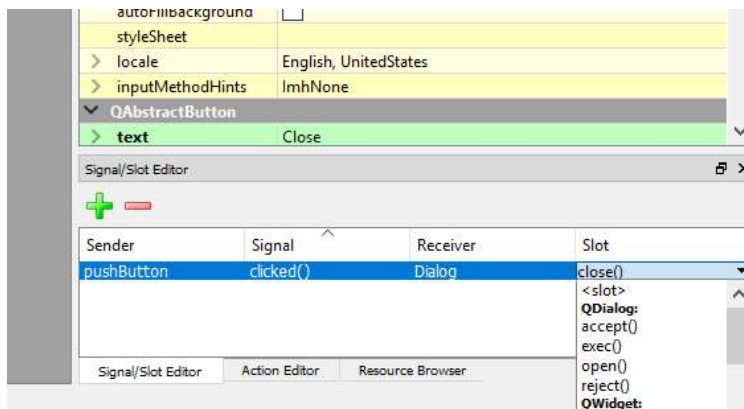
```
import os
import sys
from PyQt6 import QtCore, QtGui, QtWidgets, uic
basedir = os.path.dirname(__file__)

class MainWindow(QtWidgets.QMainWindow):
    def __init__(self, *args, **kwargs):
        super().__init__(*args, **kwargs)
        uic.loadUi(os.path.join(basedir, "mainwindow.ui"), self)

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

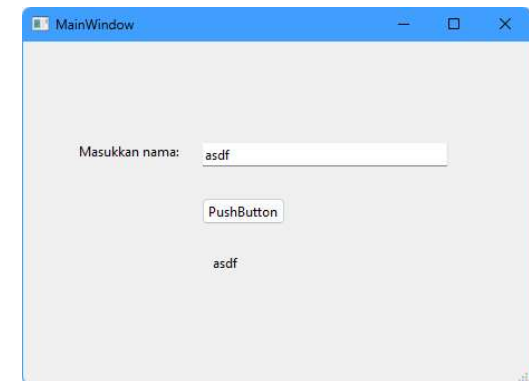
Qt Designer – Signal/Slot

- Mekanisme Signal/Slot di QtDesigner itu sederhana



Qt Designer – Signal/Slot

```
class MainWindow(QMainWindow):  
    def __init__(self, *args, **kwargs):  
        super().__init__(*args, **kwargs)  
        uic.loadUi(os.path.join(basedir, "test1.ui"), self)  
        self.pushButton.clicked.connect(self.btn_clicked)  
  
    def btn_clicked(self):  
        self.label_2.setText(self.lineEdit.text())
```



Converting .ui to .py

- File .ui berformat xml

```
1 <?xml version="1.0" encoding="UTF-8"?>
2 <ui version="4.0">
3   <class>Dialog</class>
4   <widget class="QDialog" name="Dialog">
5     <property name="geometry">
6       <rect>
7         <x>0</x>
8         <y>0</y>
9         <width>350</width>
10        <height>100</height>
11      </rect>
12    </property>
13    <property name="windowTitle">
14      <string>Dialog</string>
15    </property>
16    <widget class="QPushButton" name="pushButton">
17      <property name="geometry">
18        <rect>
19          <x>30</x>
20          <y>40</y>
21          <width>93</width>
22          <height>28</height>
23        </rect>
24      </property>
25      <property name="text">
26        <string>Close</string>
27      </property>
28    </widget>
29  </widget>
30 </resources>
31 <connections>
32 <connection>
```

Converting .ui to .py

- Dapat diubah ke file python:
 - Menggunakan program pyuic6
 - Lokasi:
C:\Users\Yonathan\PycharmProjects\PemrogDesktop\venv\Scripts
- `pyuic6 test1.ui -o test1.py`

Converting .ui to .py

```
import random
import sys
from PyQt6.QtCore import Qt
from PyQt6.QtWidgets import QApplication, QMainWindow
from test1 import Ui_MainWindow

class MainWindow(QMainWindow, Ui_MainWindow):
    def __init__(self):
        super().__init__()
        self.setupUi(self)
        self.show()
        f = self.label.font()
        f.setPointSize(25)
        self.label.setAlignment( Qt.AlignmentFlag.AlignHCenter | Qt.AlignmentFlag.AlignVCenter )
        self.label.setFont(f)
        self.pushButton.pressed.connect(self.update_label)

    def update_label(self):
        n = random.randint(1, 6)
        self.label.setText("%d" % n)

app = QApplication(sys.argv)
w = MainWindow()
app.exec()
```

UTS