

運算思維與程式設計

主題：小騷包之騙取企業老董遺產大作戰

組員：陳昱宇 蔡齊恩 林楷哲 陳晉揚



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動機

現在網路科技發達，許多作業都必須透過網路執行，而安全就成了一大疑慮，因此想模擬做出一道密碼鎖，自己設定帳號密碼並執行登入



使用說明



選擇註冊

輸入欲設定的
帳號密碼

選擇登入

輸入您已註冊
的帳號及密碼

即可登入

參考內容

參考內容為一組已設定好的帳號及密碼，並有三次嘗試的機會，若成功則登入而失敗則登出

```
Implementation(製作)/login_lock.py
1 AC="a123";
2 PW="b456";
3
4 count=3
5 for x in range(count):
6     count-=1; #8
7     acc=input("輸入帳號:");
8     pwd=input("請輸入密碼:");
9
10    if(acc == AC and pwd == PW):
11        print("登入成功");
12        break
13    else:
14        if(count==0):
15            print("帳號已鎖定，請找管理員");
16            exit()
17        else:
18            print("帳號密碼錯誤，剩餘"+str(count)+"次機會，將鎖定帳號");
19
20
21 op=eval(input("請輸入您要執行的程式:0.離開 1.RMI 2.華氏轉攝氏 3.其他程式"))
22 #可繼續再往下寫
```



程式執行結果

```
AC="a123";
PW="b456";


count=3
for x in range(count):
    count-=1; #8
    acc=input("輸入帳號:");
    pwd=input("請輸入密碼:");

    if(acc == AC and pwd == PW):
        print("登入成功");
        break
    else:
        if(count==0):
            print("帳號已鎖定，請找管理員");
            exit()
        else:
            print("帳號密碼錯誤，剩餘"+str(count)+"次機會，將鎖定帳號");
```

```
Console Shell
~/PyClass/Implementation(製作) $ python login_lock.py
輸入帳號:a122233
請輸入密碼:445566
帳號密碼錯誤，剩餘2次機會，將鎖定帳號
輸入帳號:445566
請輸入密碼:4444
帳號密碼錯誤，剩餘1次機會，將鎖定帳號
輸入帳號:1111
請輸入密碼:2222
帳號已鎖定，請找管理員
~/PyClass/Implementation(製作) $ python login_lock.py
輸入帳號:123
請輸入密碼:456
帳號密碼錯誤，剩餘2次機會，將鎖定帳號
輸入帳號:a123
請輸入密碼:b456
登入成功
請輸入您要執行的程式:0.離開 1.RMI 2.華氏轉攝氏 3.其他程
式[]
```



延伸閱讀



自訂帳號密碼

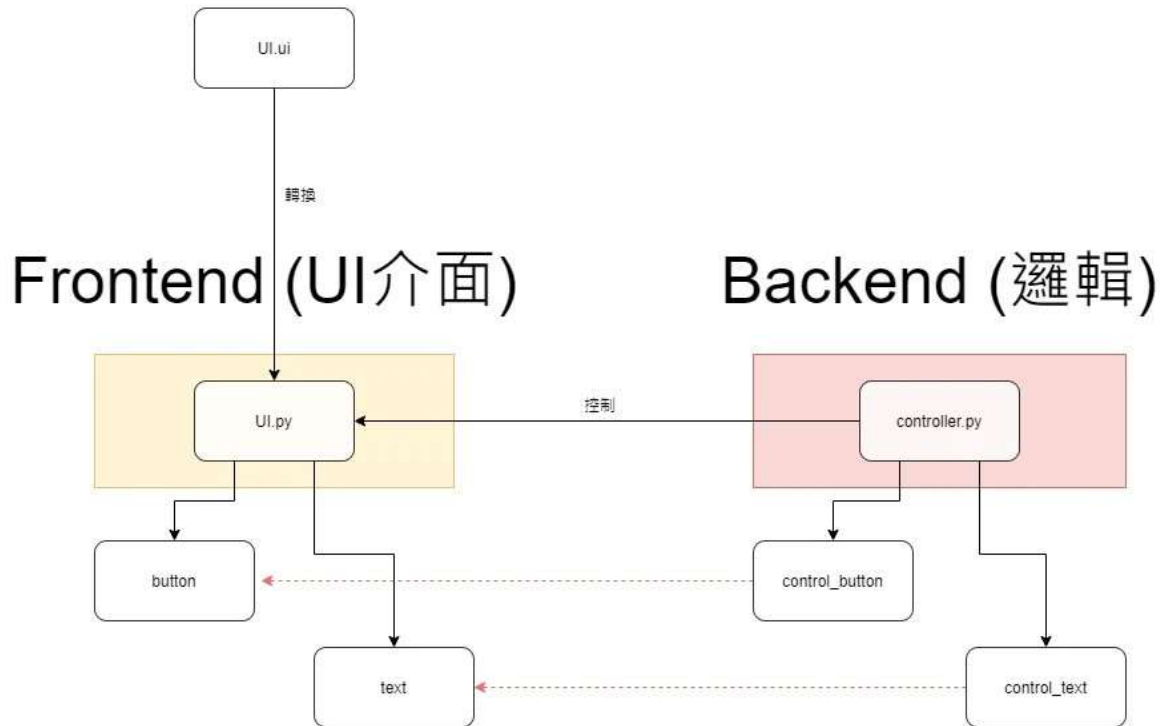


結合qt designer



概念示意圖

用 Qt designer 製作 UI 介面



圖源

<https://www.wongwonggoods.com/python/pyqt5-4/>

程式碼



```
one.py > mainWindow > register
1  #import ui_denglu as dl
2  #import ui_zhuce as zc
3
4  # from PyQt5 import QDialog
5  # from PyQt5 import QMainWindow
6  from PyQt5.QtWidgets import QDialog, QMainWindow, QApplication, QMessageBox
7  from PyQt5 import uic
8  import sys
9
10 class mainWindow(QMainWindow):
11     def __init__(self):
12         QMainWindow.__init__(self)
13         uic.loadUi('ui_zhuce.ui', self)
14         self.blogin.clicked.connect(self.login)
15         self.bRegister.clicked.connect(self.register)
16         self.registerlist = [[]]
17         # self.main_ui = dl.Ui_submit_user()
18         # self.main_ui.setupUi(self)
19     def login(self):
20         self.lw = loginWindow()
21         self.lw.exec_()
22         #print(self.lw.eUsername.text())
23         #print(self.lw.ePassword.text())
24
25         if [self.lw.eUsername.text(), self.lw.ePassword.text()] in self.registerlist:
```


程式碼



```
one.py > mainWindow > register

24
25     if [self.lw.eUsername.text(), self.lw.ePassword.text()] in self.registerlist:
26         QMessageBox.information(None, 'Login', 'Success!')
27     else:
28         QMessageBox.information(None, 'Login', 'Fail!')
29
30     def register(self):
31         self.lw = regisnerWindow()
32         self.lw.exec_()
33         if self.lw.eUsername1.text() == self.lw.eUsername2.text() and self.lw.ePassword1.text() == self.lw.ef
34             self.registerlist.append([self.lw.eUsername1.text(), self.lw.ePassword1.text()])
35         #print(self.lw.eUsername1.text())
36         #print(self.lw.eUsername2.text())
37         #print(self.lw.ePassword1.text())
38         #print(self.lw.ePassword2.text())
39         if self.lw.eUsername1.text() == self.lw.eUsername2.text() and self.lw.ePassword1.text() == self.lw.ef
40             QMessageBox.information(None, 'register', '註冊成功!')
41         else:
42             QMessageBox.information(None, 'register', '註冊失敗!')
43
44     class loginWindow(QDialog):
45         def __init__(self):
46             QDialog.__init__(self)
47             uic.loadUi('ui_login.ui', self)
48             self.bOKK.clicked.connect(self.close)
```

程 式 碼



```
one.py > mainWindow > register
43
44 class loginWindow(QDialog):
45     def __init__(self):
46         QDialog.__init__(self)
47         uic.loadUi('ui_login.ui', self)
48         self.bOKK.clicked.connect(self.close)
49         # self.child = zc.Ui_MainWindow()
50         # self.child.setupUi(self)
51
52 class regisnerWindow(QDialog):
53     def __init__(self):
54         QDialog.__init__(self)
55         uic.loadUi('ui_denglu.ui', self)
56         self.bOK.clicked.connect(self.close)
57
58 if __name__ == '__main__':
59     app = QApplication(sys.argv)
60     window = mainWindow()
61     # child = childWindow()
62     # 透過toolButton將兩個窗體關聯
63     # btn = window.main_ui.Ui_submit_user
64     # btn.clicked.connect(child.show)
65     # 顯示
66     window.show()
67     sys.exit(app.exec_())
```

主 頁 面 程 式 碼

```
01 from PyQt5 import QtCore, QtGui, QtWidgets
02
03
04 class Ui_QtDesigner(object):
05     def setupUi(self, QtDesigner):
06         QtDesigner.setObjectName("QtDesigner")
07         QtDesigner.resize(761, 581)
08         QtDesigner.setStyleSheet("background: ivory; color: blue; border: 2px solid green;")
09         self.bOK = QtWidgets.QPushButton(QtDesigner)
10         self.bOK.setGeometry(QtCore.QRect(349, 559, 121, 31))
11         self.bOK.setStyleSheet("background:white; color: green; border: 2px solid green;")
12
13         "Font: 12pt 'Agency FB';")
14         self.bOK.setObjectName("bOK")
15         self.username1 = QtWidgets.QLineEdit(QtDesigner)
16         self.username1.setGeometry(QtCore.QRect(258, 526, 286, 26))
17         self.username1.setStyleSheet("background:white; color: green; border: 2px solid green;")
18
19         "Font: 12pt 'Agency FB';")
20         self.username1.setObjectName("username1")
21         self.password1 = QtWidgets.QLineEdit(QtDesigner)
22         self.password1.setGeometry(QtCore.QRect(258, 559, 286, 26))
23         self.password1.setStyleSheet("background:white; color: green; border: 2px solid green;")
24
25         "Font: 12pt 'Agency FB';")
26         self.password1.setObjectName("password1")
27         self.username2 = QtWidgets.QLineEdit(QtDesigner)
28         self.username2.setGeometry(QtCore.QRect(258, 592, 286, 26))
29         self.username2.setStyleSheet("background:white; color: green; border: 2px solid green;")
30
31         "Font: 12pt 'Agency FB';")
32         self.username2.setObjectName("username2")
33         self.password2 = QtWidgets.QLineEdit(QtDesigner)
```

```
33         "Font: 12pt 'Agency FB';")
34         self.label_2.setObjectName("label_2")
35         self.label_3 = QtWidgets.QLabel(QtDesigner)
36         self.label_3.setGeometry(QtCore.QRect(150, 200, 111, 31))
37         self.label_3.setStyleSheet("background: ivory; color: black;border:white;\n")
38
39         "Font: 12pt 'Agency FB';")
40         self.label_3.setObjectName("label_3")
41         self.label_4 = QtWidgets.QLabel(QtDesigner)
42         self.label_4.setGeometry(QtCore.QRect(250, 250, 101, 41))
43         self.label_4.setStyleSheet("background: ivory; color: black;border:white;\n")
44
45         "Font: 12pt 'Agency FB';")
46         self.label_4.setObjectName("label_4")
47
48
49         self.retranslateUi(QtDesigner)
50         QtCore.QMetaObject.connectSlotsByName(QtDesigner)
51
52     def retranslateUi(self, QtDesigner):
53         _translate = QtCore.QCoreApplication.translate
54         QtDesigner.setWindowTitle(_translate("QtDesigner", "Form"))
55         self.bOK.setText(_translate("QtDesigner", "確認"))
56         self.label.setText(_translate("QtDesigner", "帳號"))
57         self.label_2.setText(_translate("QtDesigner", "密碼"))
58         self.label_3.setText(_translate("QtDesigner", "確認帳號"))
59         self.label_4.setText(_translate("QtDesigner", "確認密碼"))
```

```
01 from PyQt5 import QtCore, QtGui, QtWidgets
02
03
04 class Ui_MainWindow(object):
05     def setupUi(self, MainWindow):
06         MainWindow.setObjectName("MainWindow")
07         MainWindow.resize(761, 581)
08         MainWindow.setStyleSheet("background: ivory; color: green; border: 2px solid green;")
09
10         "Font: 12pt 'Agency FB';")
11         self.username1.setObjectName("username1")
12         self.password1 = QtWidgets.QLineEdit(MainWindow)
13         self.password1.setGeometry(QtCore.QRect(150, 200, 111, 31))
14         self.password1.setStyleSheet("background:white; color: green; border: 2px solid green;")
15
16         "Font: 12pt 'Agency FB';")
17         self.password1.setObjectName("password1")
18         self.label = QtWidgets.QLabel(MainWindow)
19         self.label.setGeometry(QtCore.QRect(250, 250, 101, 41))
20         self.label.setStyleSheet("background: ivory; color: black;border:white;\n")
21
22         "Font: 12pt 'Agency FB';")
23         self.label.setObjectName("label")
24         self.label_2 = QtWidgets.QLabel(MainWindow)
25         self.label_2.setGeometry(QtCore.QRect(150, 250, 101, 41))
26         self.label_2.setStyleSheet("background: ivory; color: black;border:white;\n")
27
28         "Font: 12pt 'Agency FB';")
29         self.label_2.setObjectName("label_2")
30         self.label_3 = QtWidgets.QLabel(MainWindow)
31         self.label_3.setGeometry(QtCore.QRect(250, 300, 101, 41))
32         self.label_3.setStyleSheet("background: ivory; color: black;border:white;\n")
33
34         "Font: 12pt 'Agency FB';")
35         self.label_3.setObjectName("label_3")
36
37         self.retranslateUi(MainWindow)
```


登入程式碼

```

10 from PySide import QtCore, QtGui, QtDesigner
11
12
13
14 class UI(QtDesigner.QDesigner):
15     def setupUi(self, QDesigner):
16         QDesigner.setObjectName("QDesigner")
17         QDesigner.resize(500, 578)
18         QDesigner.setStyleSheet("background: ivory; color: blue; border: 1px solid green;\n")
19         self.label_2 = QtGui.QLabel(QDesigner)
20         self.label_2.setGeometry(QtCore.QRect(170, 130, 81, 31))
21         self.label_2.setStyleSheet("background: ivory; color: black;border:white;\n")
22         "Font: Lpt V'Agency FB,\"")
23         self.label_2.setObjectName("label_2")
24         self.label_3 = QtGui.QLabel(QDesigner)
25         self.label_3.setGeometry(QtCore.QRect(170, 160, 81, 31))
26         self.label_3.setStyleSheet("background: ivory; color: black;border:white;\n")
27         "Font: Lpt V'Agency FB,\"")
28         self.label_3.setObjectName("label_3")
29         self.silvername = QtGui.QLabel(QDesigner)
30         self.silvername.setGeometry(QtCore.QRect(300, 130, 140, 41))
31         self.silvername.setStyleSheet("background:white; color: green; border: 2px solid green;\n")
32         "Font: Lpt V'Agency FB,\"")
33         self.silvername.setObjectName("silvername")
34         self.spassword = QtGui.QLabel(QDesigner)
35         self.spassword.setGeometry(QtCore.QRect(300, 160, 140, 41))
36         self.spassword.setStyleSheet("background:white; color: green; border: 2px solid green;\n")
37         "Font: Lpt V'Agency FB,\"")
38         self.spassword.setObjectName("spassword")
39         self.silvername.setGeometry(QtCore.QRect(300, 190, 140, 41))
40         self.silvername.setStyleSheet("background:white; color: green; border: 2px solid green;\n")
41         "Font: Lpt V'Agency FB,\"")
42         self.silvername.setObjectName("silvername")
43         self.spassword = QtGui.QLabel(QDesigner)
44         self.spassword.setGeometry(QtCore.QRect(300, 190, 140, 41))
45         self.spassword.setStyleSheet("background:white; color: green; border: 2px solid green;\n")
46         "Font: Lpt V'Agency FB,\"")
47         self.spassword.setObjectName("spassword")
48         self.silvername.setGeometry(QtCore.QRect(320, 231, 121, 31))
49         self.silvername.setStyleSheet("background:white; color: green; border: 2px solid green;\n")
50         "Font: Lpt V'Agency FB,\"")
51         self.silvername.setObjectName("silvername")
52         self.spassword.setGeometry(QtCore.QRect(320, 231, 121, 31))
53         self.spassword.setStyleSheet("background:white; color: green; border: 2px solid green;\n")
54         "Font: Lpt V'Agency FB,\"")
55         self.spassword.setObjectName("spassword")
56         self.retranslateUi(QDesigner)
57         QtCore.QMetaObject.connectSlotsByName(QDesigner)
58
59     def retranslateUi(self, QDesigner):
60         _translate = QtCore.QtCoreApplication.translate
61         QDesigner.setWindowTitle(_translate("QDesigner", "Form"))
62         self.label_2.setText(_translate("QDesigner", "ID#"))
63         self.label_3.setText(_translate("QDesigner", "DOB"))
64         self.silvername.setText(_translate("QDesigner", "SILVERNAME"))
65         self.spassword.setText(_translate("QDesigner", "SPASSWORD"))

```

註冊程式碼

```

11 from PyQt5 import QtCore, QtGui, QtWidgets
12
13 class Ui_QtDesigner(object):
14     def setupUi(self, QtDesigner):
15         QtDesigner.setObjectName("QtDesigner")
16         QtDesigner.resize(758, 577)
17         QtDesigner.setStyleSheet("background: ivory; color: blue; border: 1px solid green;")
18         self.bRegister = QtWidgets.QPushButton(QtDesigner)
19         self.bRegister.setGeometry(QtCore.QRect(300, 350, 151, 71))
20         self.bRegister.setStyleSheet("background:white; color: green; border: 2px solid green;\n"
21 "font: 12pt \"Agency FB\";")
22         self.bRegister.setObjectName("bRegister")
23         self.bLogin = QtWidgets.QPushButton(QtDesigner)
24         self.bLogin.setGeometry(QtCore.QRect(300, 260, 151, 71))
25         self.bLogin.setStyleSheet("background:white; color: green; border: 2px solid green;\n"
26 "font: 12pt \"Agency FB\";")
27         self.bLogin.setObjectName("bLogin")
28         self.label = QtWidgets.QLabel(QtDesigner)
29         self.label.setGeometry(QtCore.QRect(130, 70, 491, 131))
30         self.label.setStyleSheet("background: ivory; color: black;border:white;\n"
31 "font: 7S 16pt \"Arial\";")
32         self.label.setObjectName("label")
33         self.retranslateUi(QtDesigner)
34         QtCore.QMetaObject.connectSlotsByName(QtDesigner)
35
36     def retranslateUi(self, QtDesigner):
37         _translate = QtCore.QCoreApplication.translate
38         QtDesigner.setWindowTitle(_translate("QtDesigner", "Form"))
39         self.bRegister.setText(_translate("QtDesigner", "注册"))

```


執行結果



https://www.youtube.com/watch?v=UKT-kxme4_Q

5.

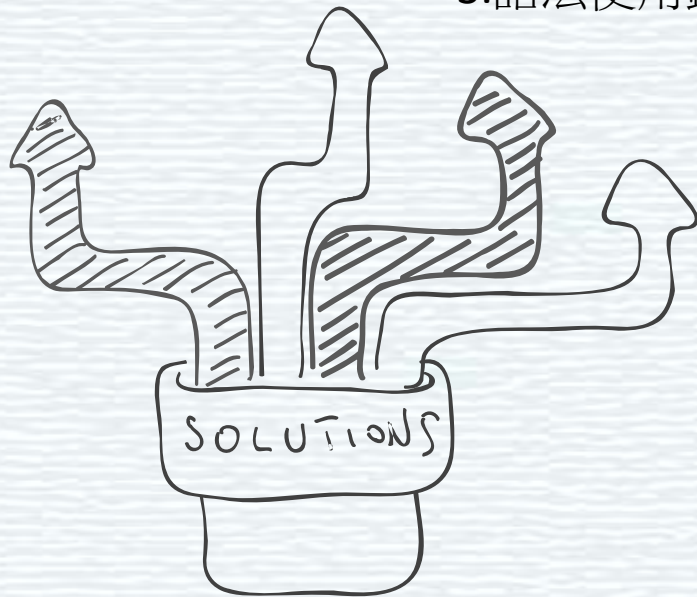
問題與解法

1. Py檔存錯位置

2. 環境設置錯誤

3. 語法使用錯誤

4. 如何由母視窗
叫出子視窗



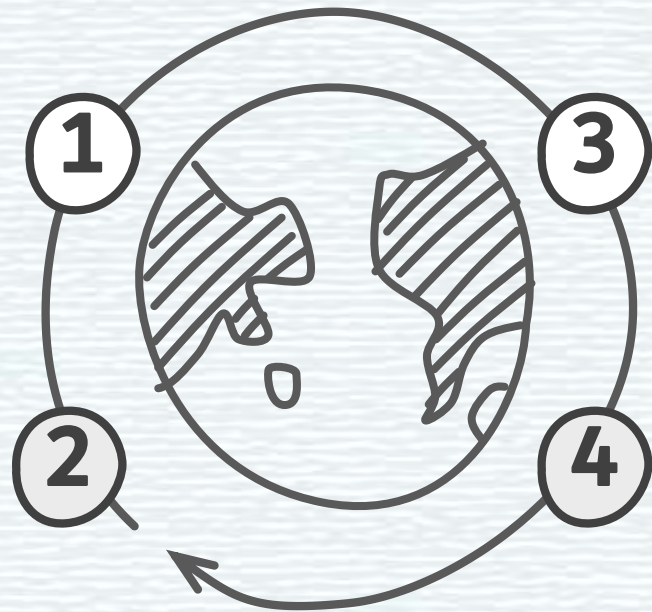
結果與討論

我們做了pyqt5 Qt Designer進階應用，使用者可以透過註冊鍵設定帳號密碼，利用登入鍵登入帳號密碼，應用py的雙階層、連結子母視窗，利用觸發條件改變狀態



學習心得

經過本次專題製作學習到最多的是團隊合作的解題能力，整合組員不同的創新想法並訂定方向，在解題過程中互相分享自己的看法並透過多方查詢資料得到確的結論，經由多次嘗試整合才能完成這次的專題報告。





組員分工



01

程式發想

陳昱宇



02

PPT製作

蔡齊恩



03

報告與分享

陳晉揚 林楷哲

THE END

謝謝大家