

# Open Platform Software

## 開放平台軟體

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Assignment #5: Chat Room (1)

Semester: 106-2

Offered: 2018

Dr. Bo-Hao Chen

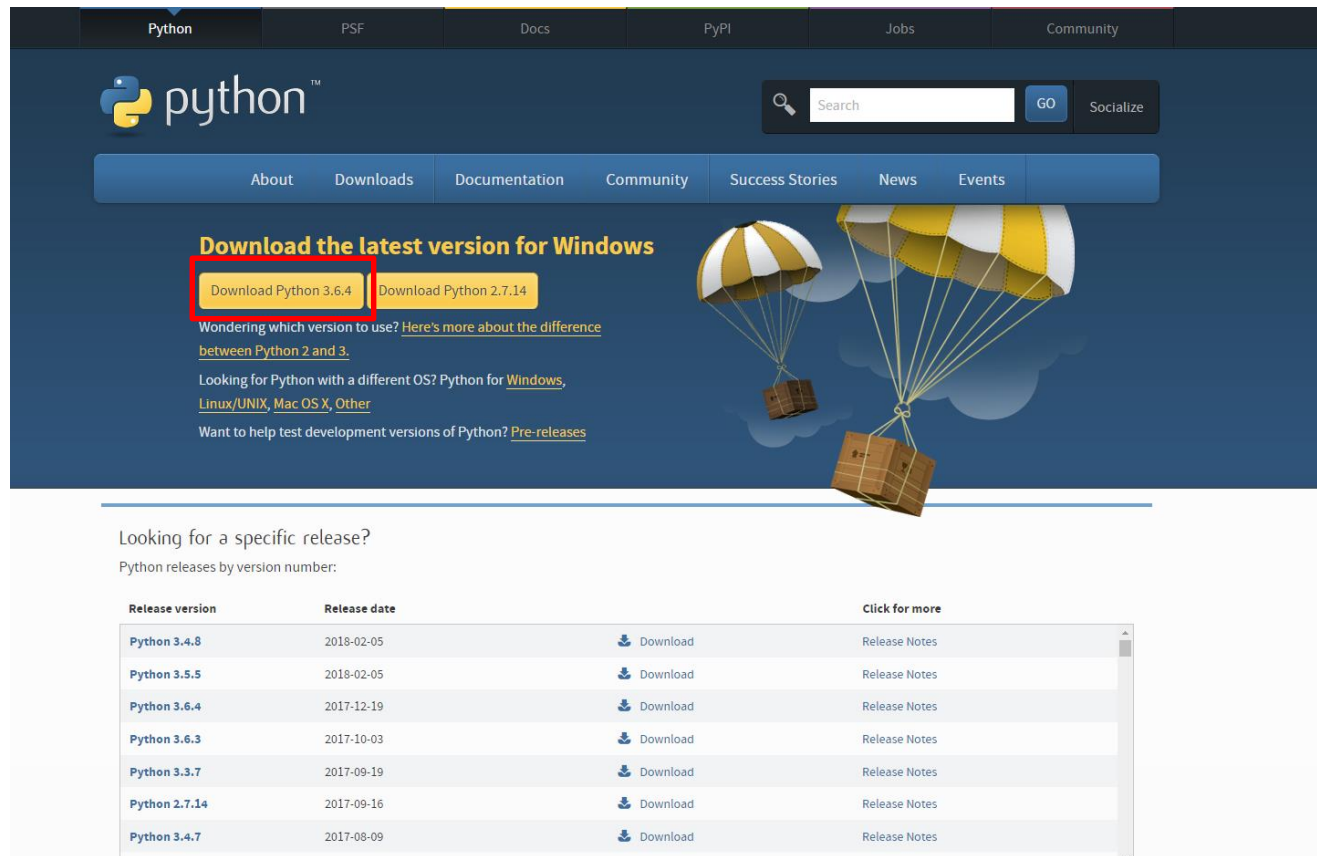
Department of Computer Science and Engineering

Yuan Ze University, Taoyuan, Taiwan

bhchen at saturn.yzu.edu.tw

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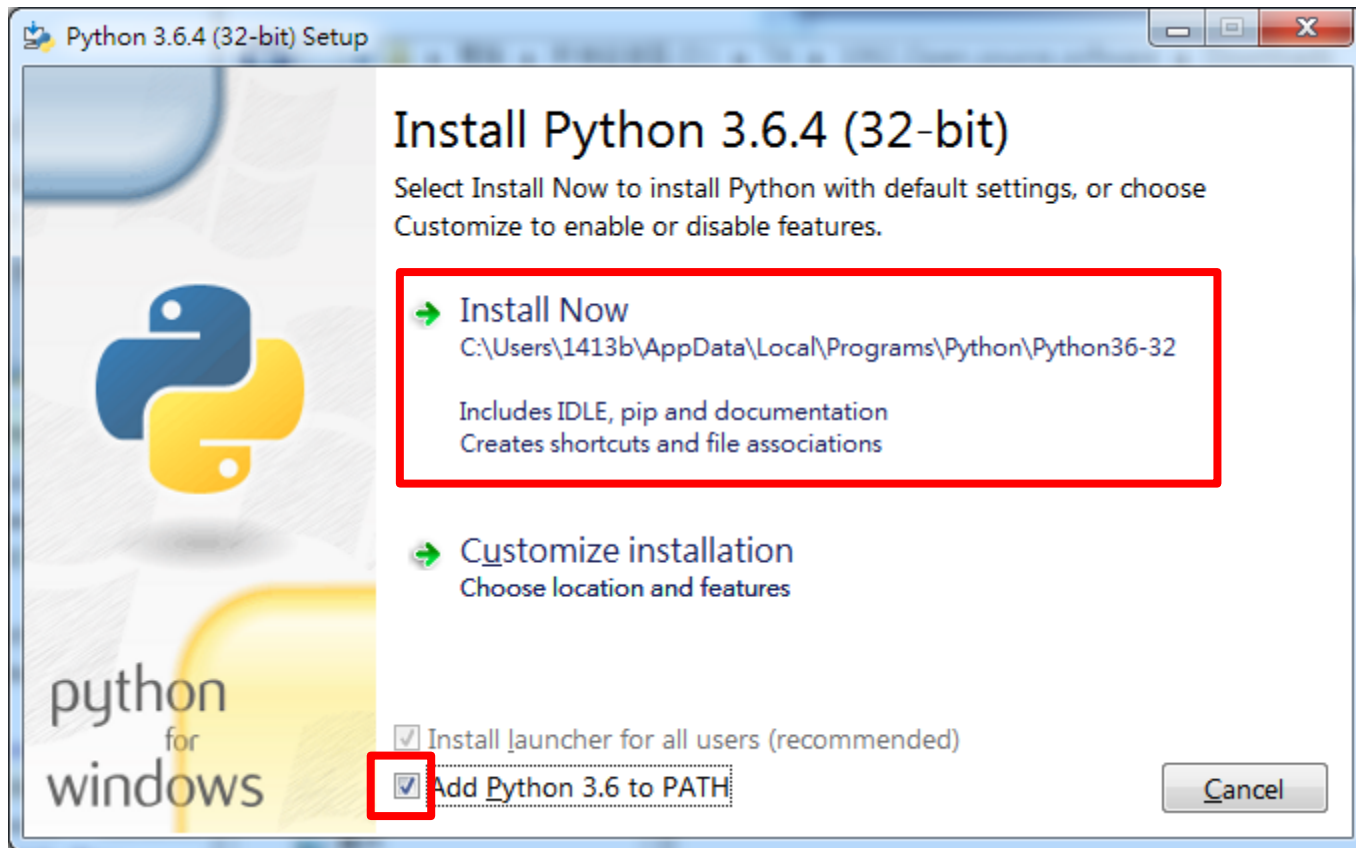
- <https://www.python.org/downloads/>



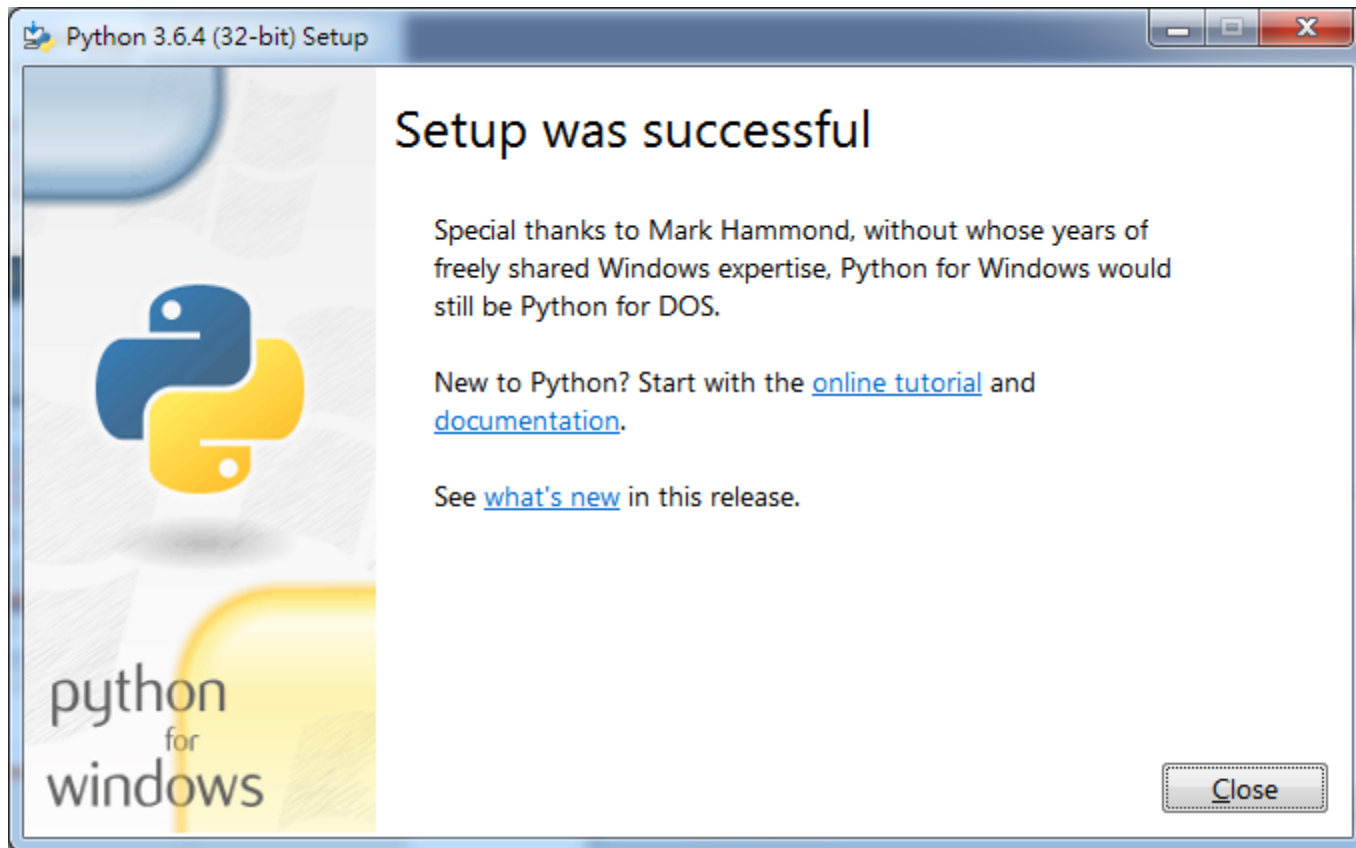
The screenshot shows the Python.org website's download page. The header includes navigation links for Python, PSF, Docs, PyPI, Jobs, and Community. A search bar and a 'Socialize' button are also present. The main content area features a large banner with the text 'Download the latest version for Windows' and two buttons: 'Download Python 3.6.4' (highlighted with a red box) and 'Download Python 2.7.14'. Below the buttons, there are links for more information about the difference between Python 2 and 3, and for downloading Python for other operating systems like Windows, Linux, and Mac OS X. A section titled 'Looking for a specific release?' provides a table of Python releases by version number.

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# Install Python 3

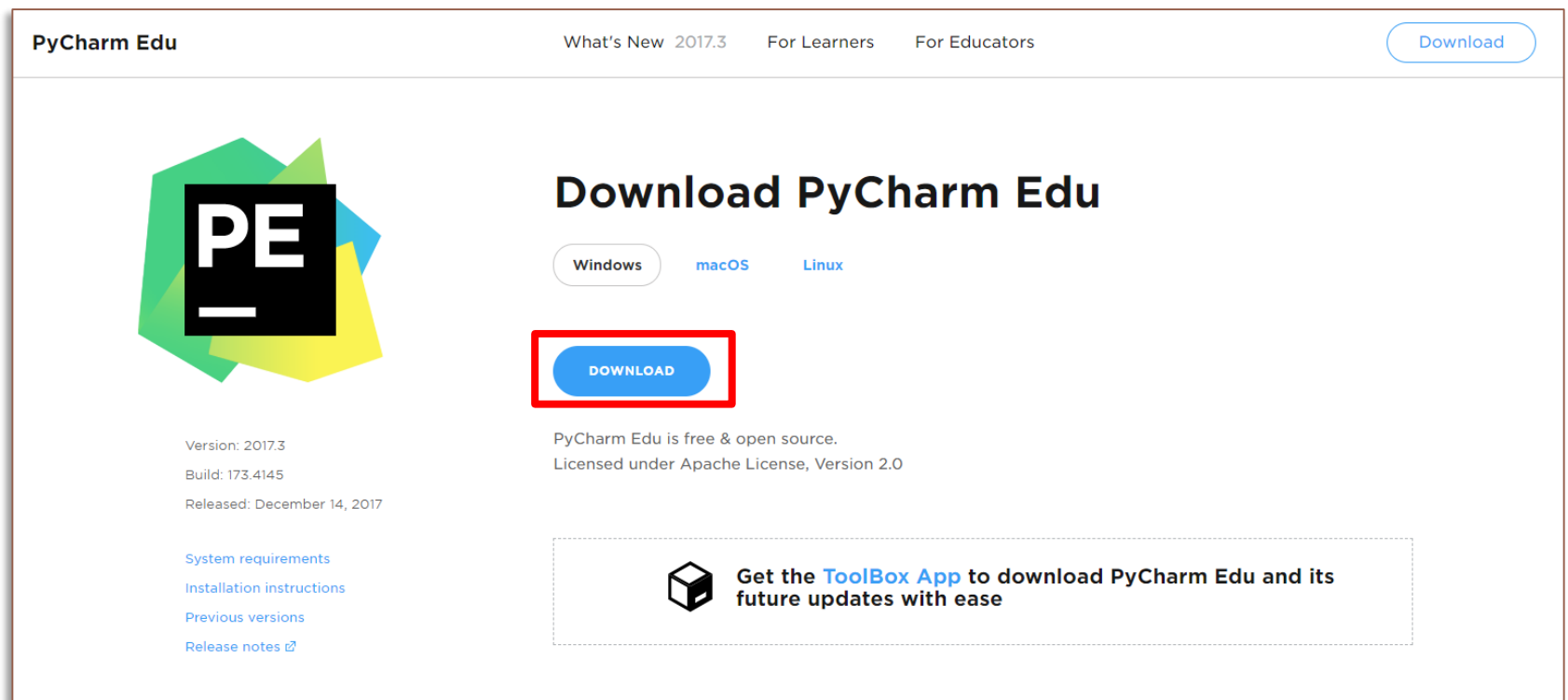


# Install Python 3



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Version: 2017.3  
Build: 173.4145  
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[Previous versions](#)  
[Release notes](#)

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# Install PyCharm

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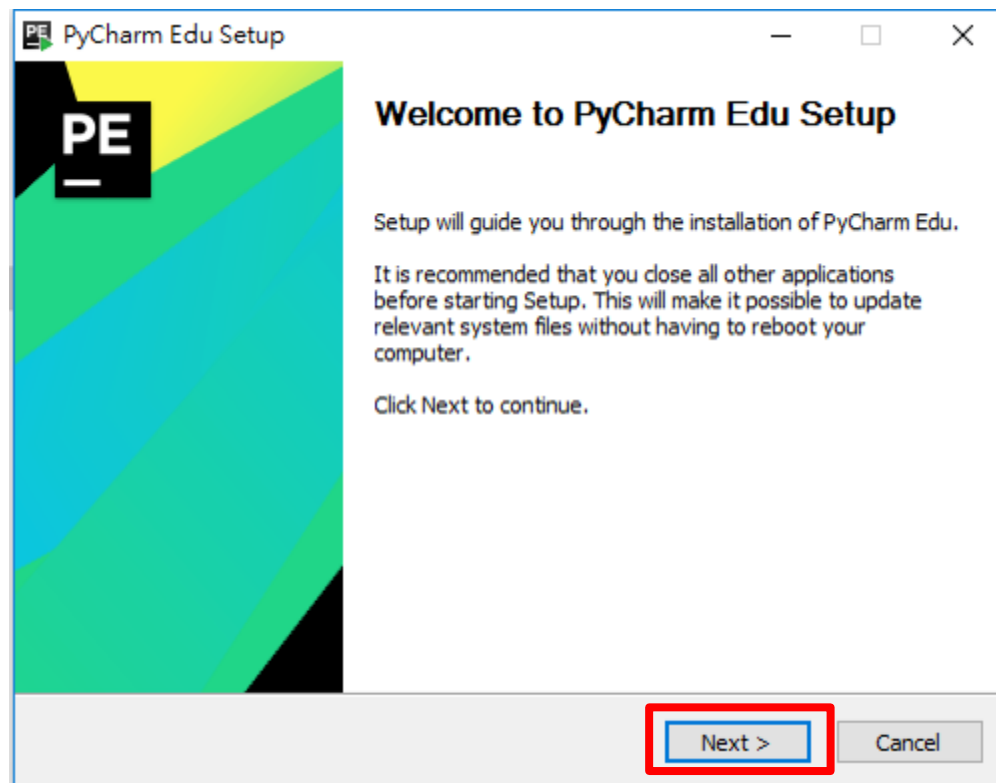


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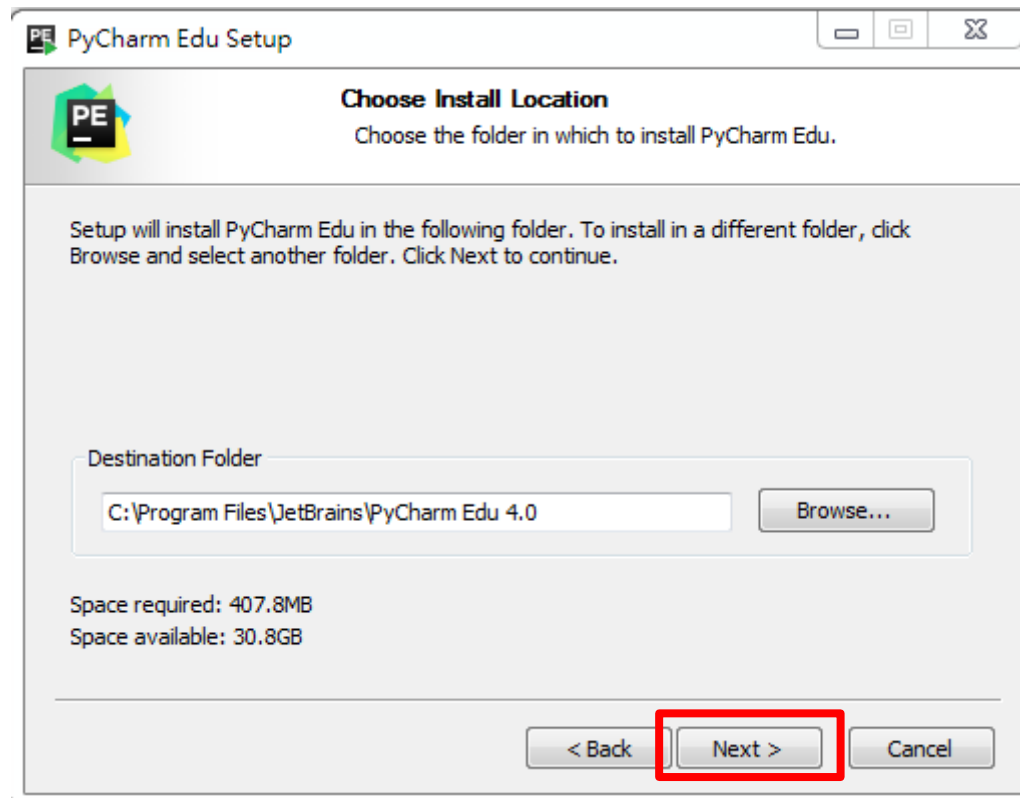


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# Install PyCharm

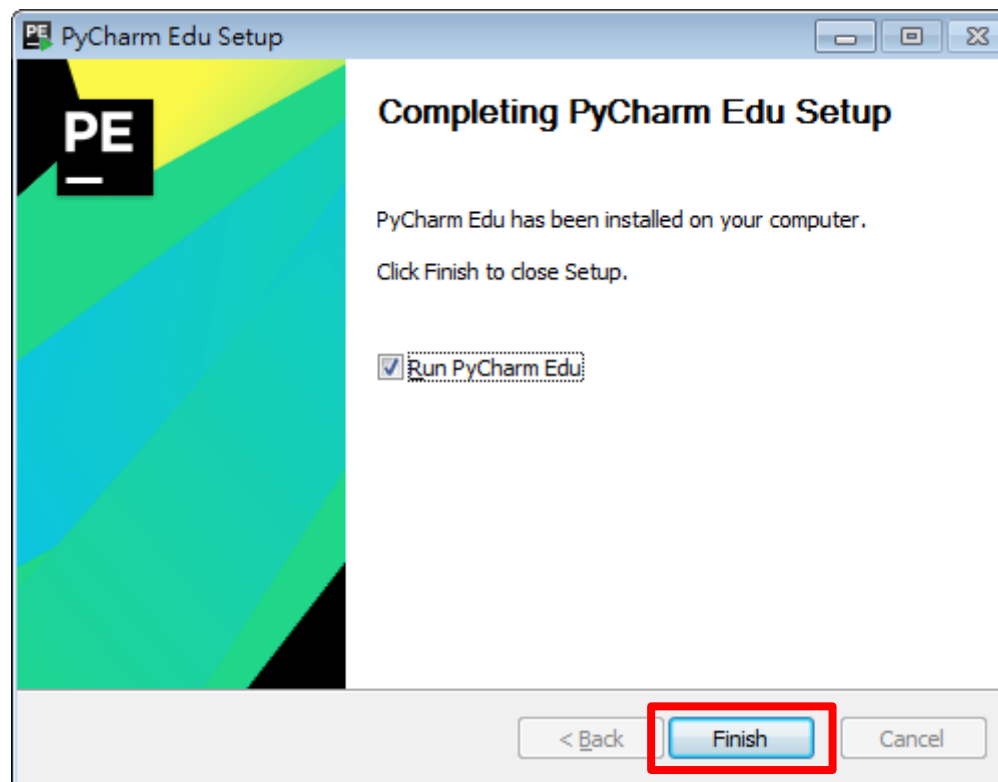


# Install PyCharm

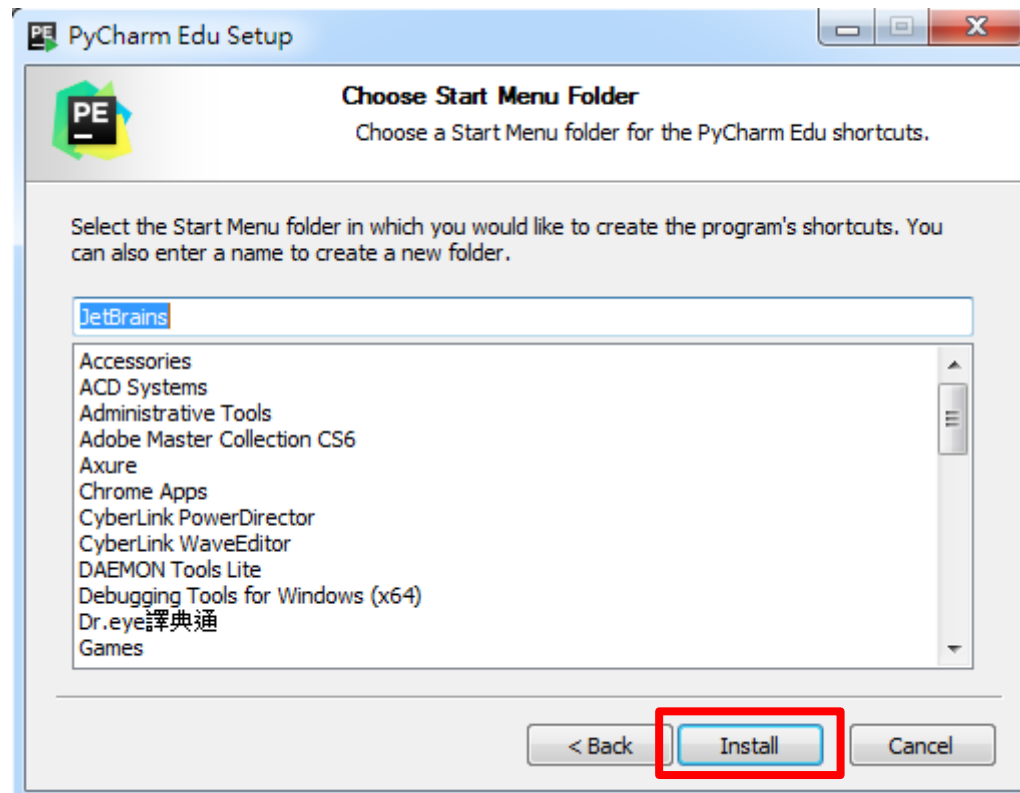




# Install PyCharm

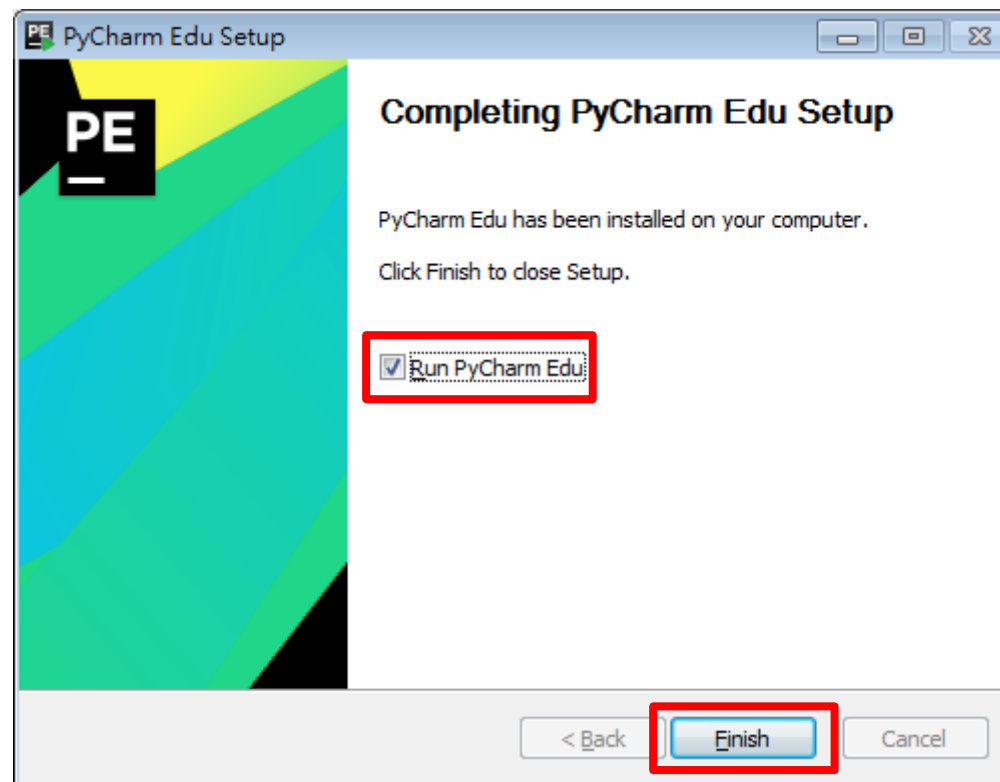


# Install PyCharm

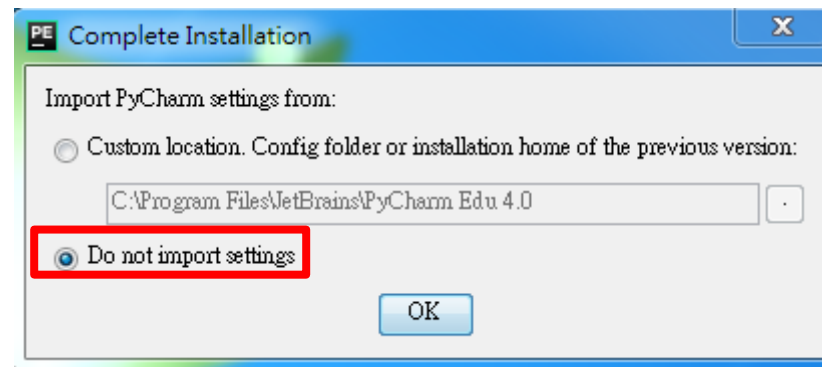


# Install PyCharm

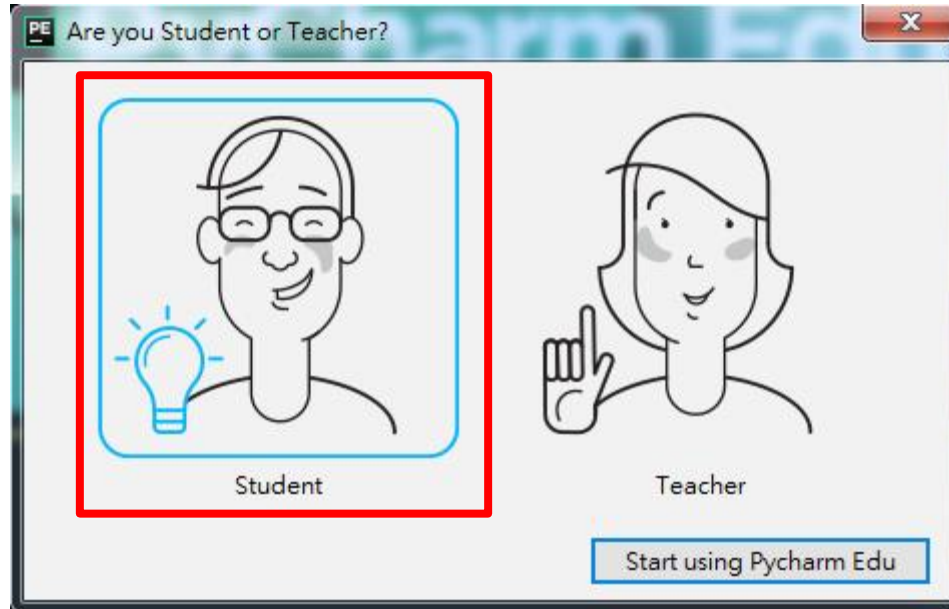
- Finish installation and execute PyCharm Edu



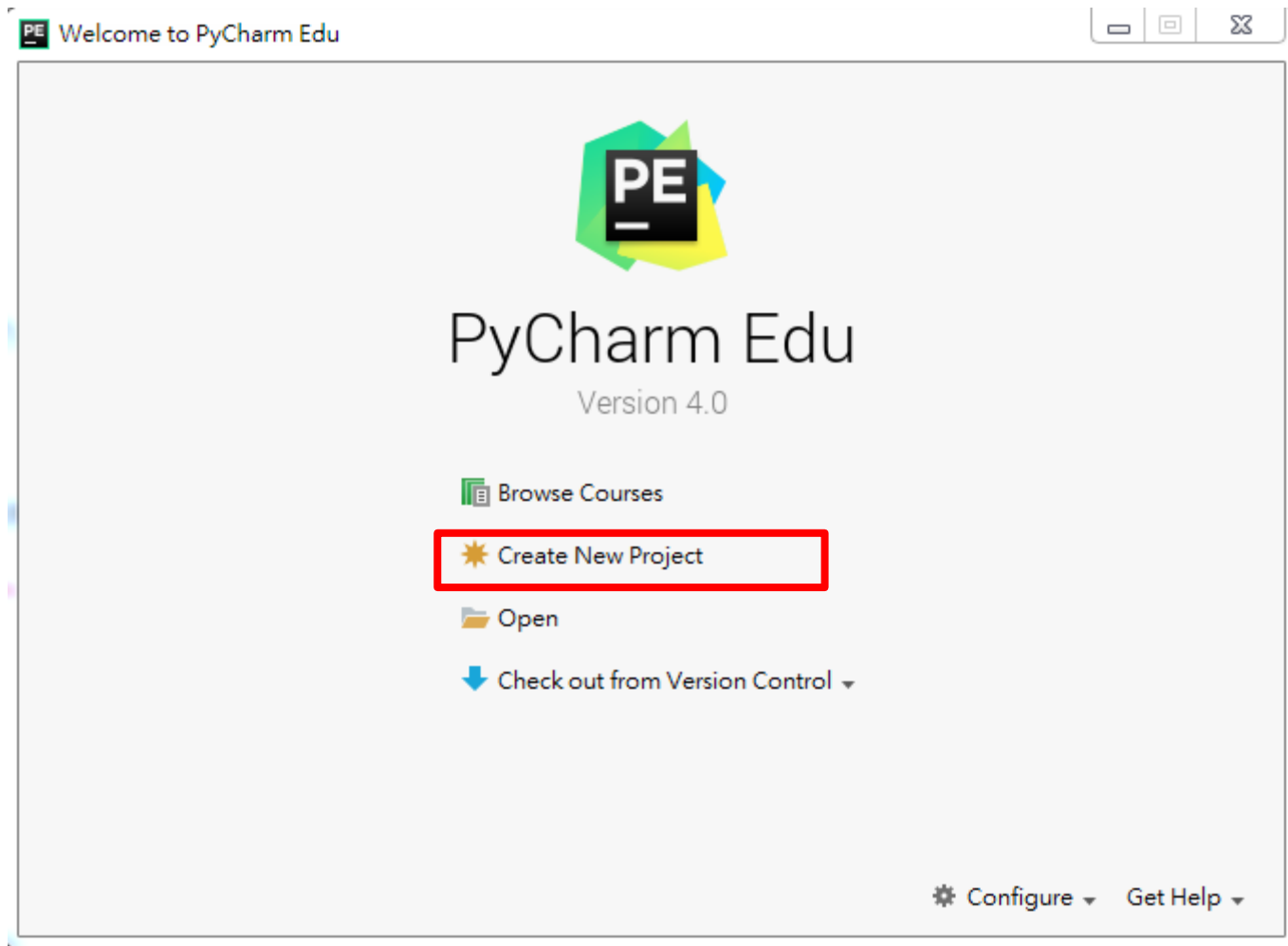
# Install PyCharm



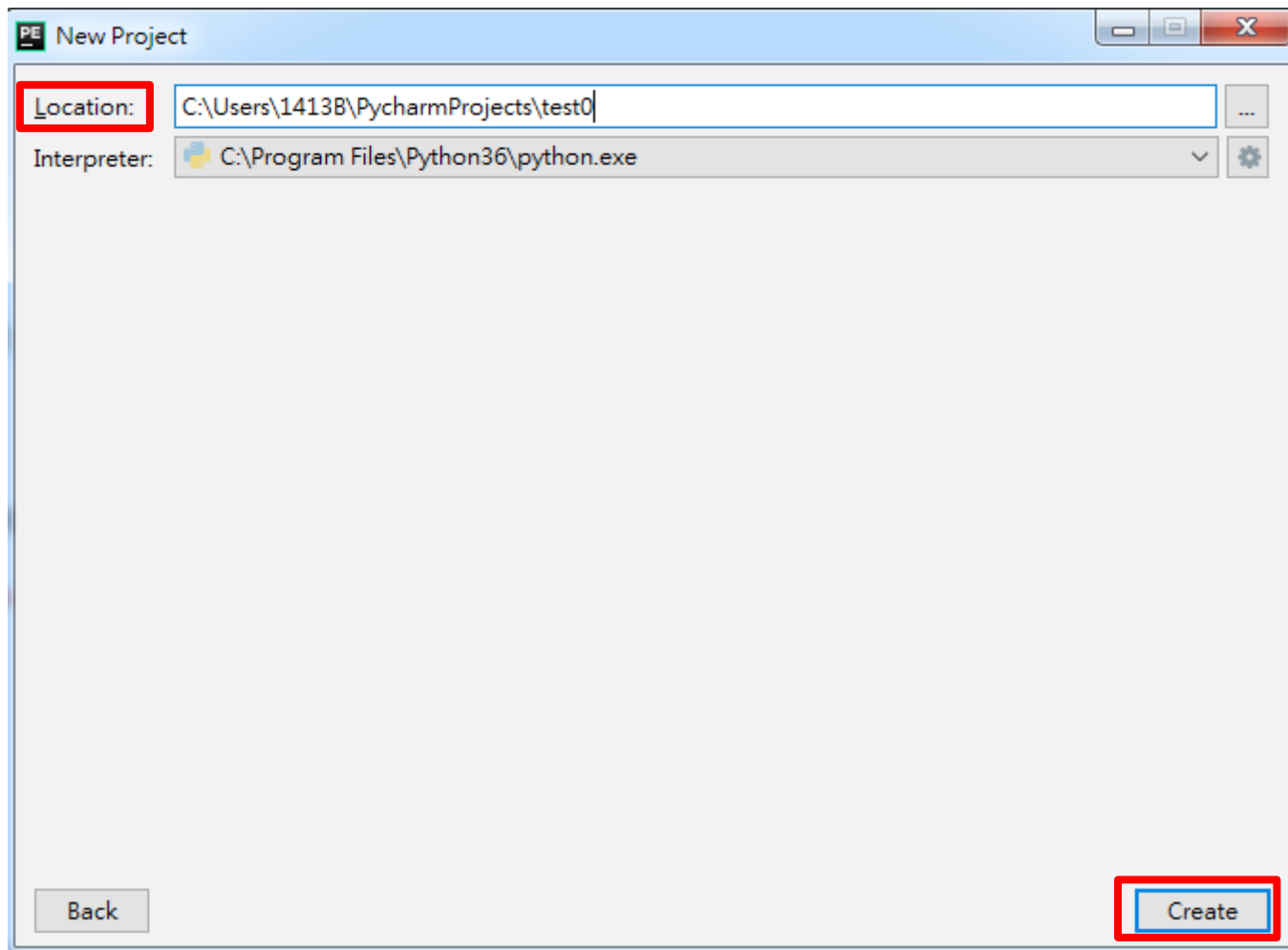
# Install PyCharm



# Install PyCharm

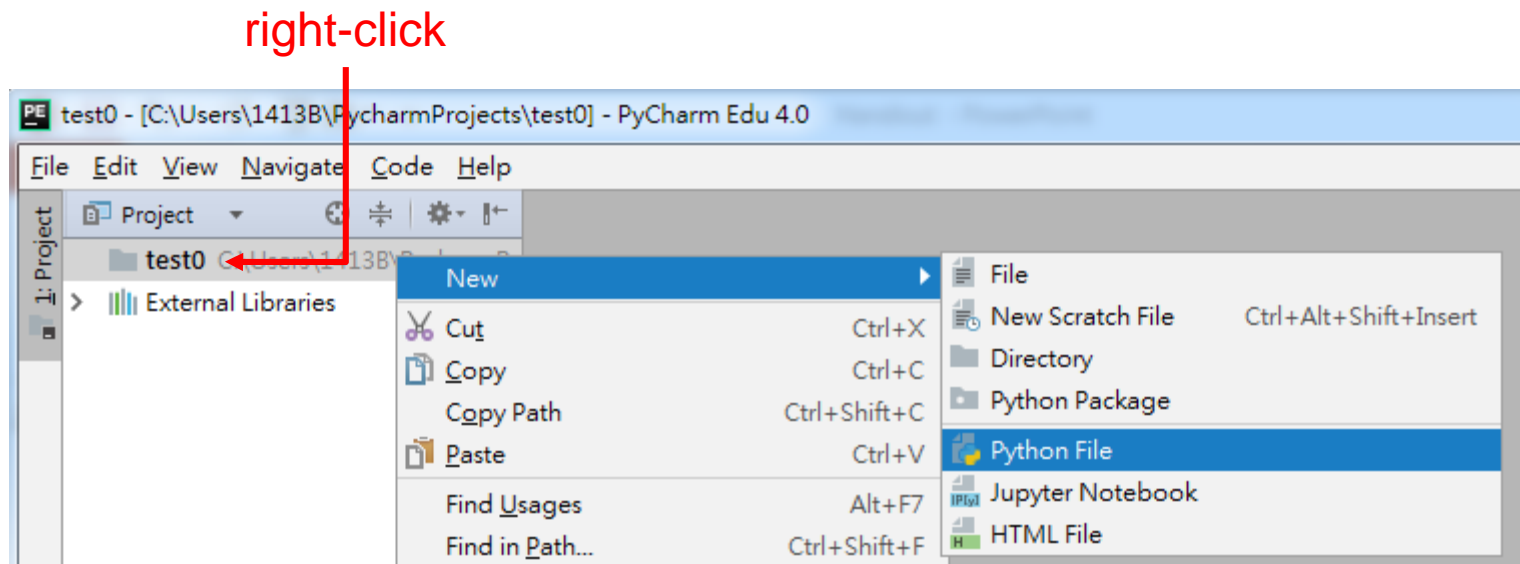


# Install PyCharm



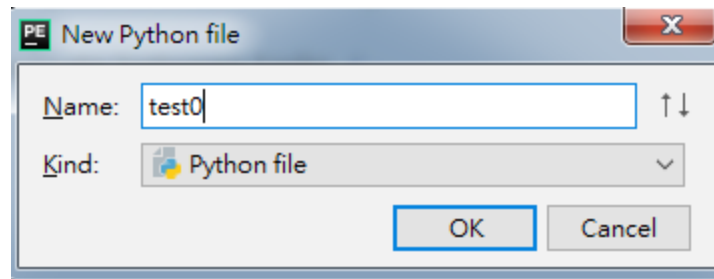
# Install PyCharm

- New File





# Install PyCharm

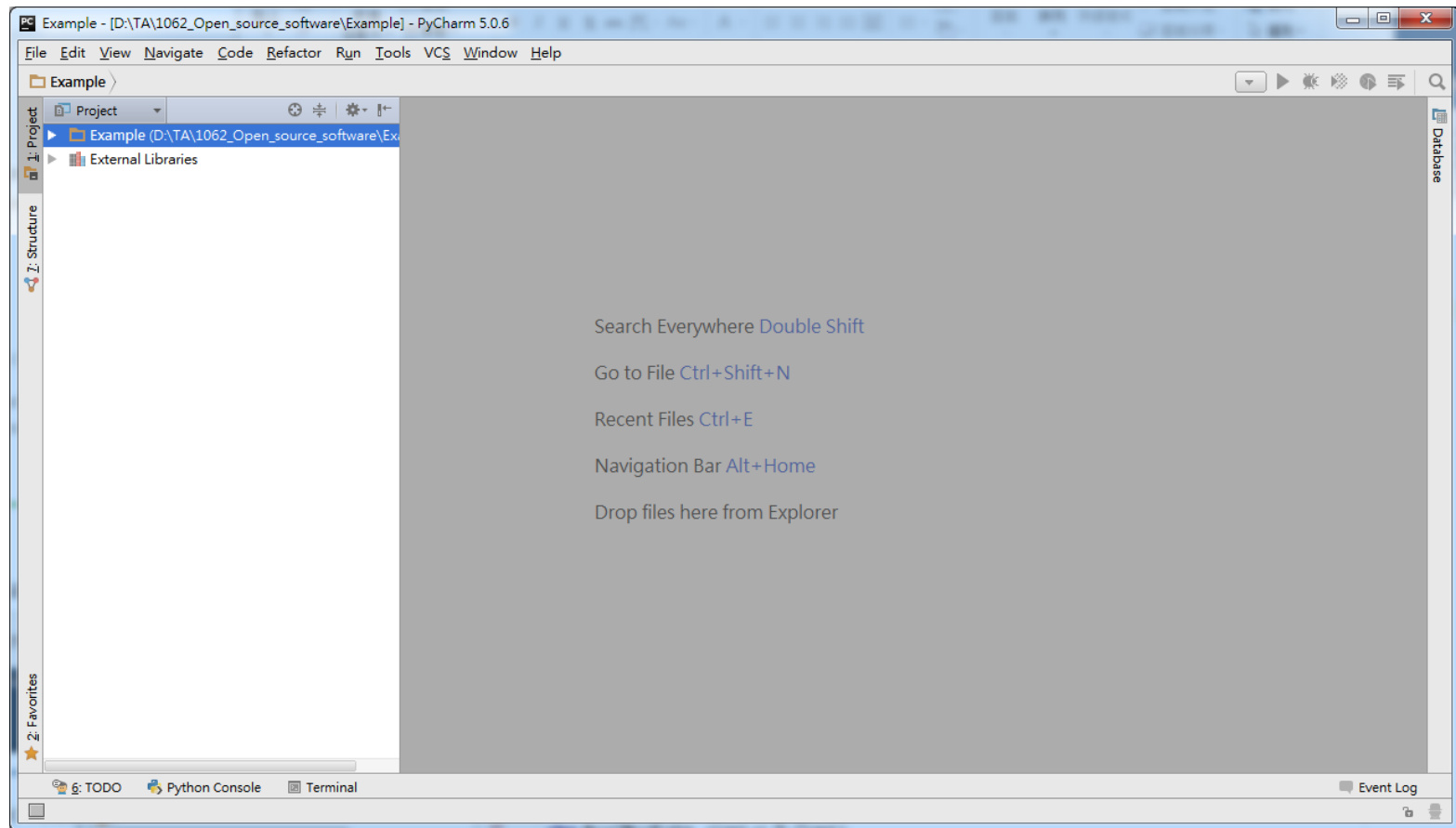


# Install PyCharm



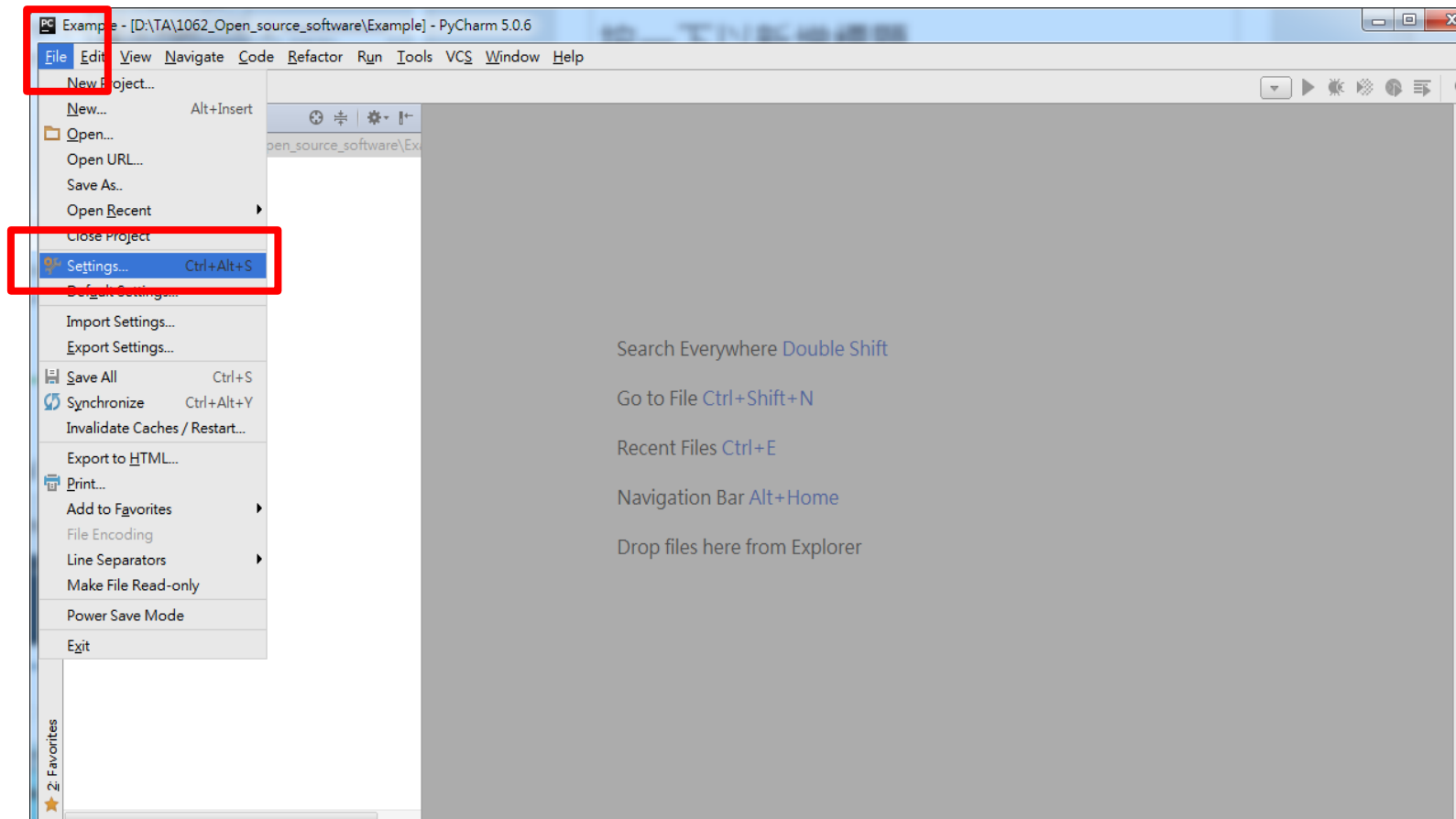
# Setting Interpreter

- Open PyCharm



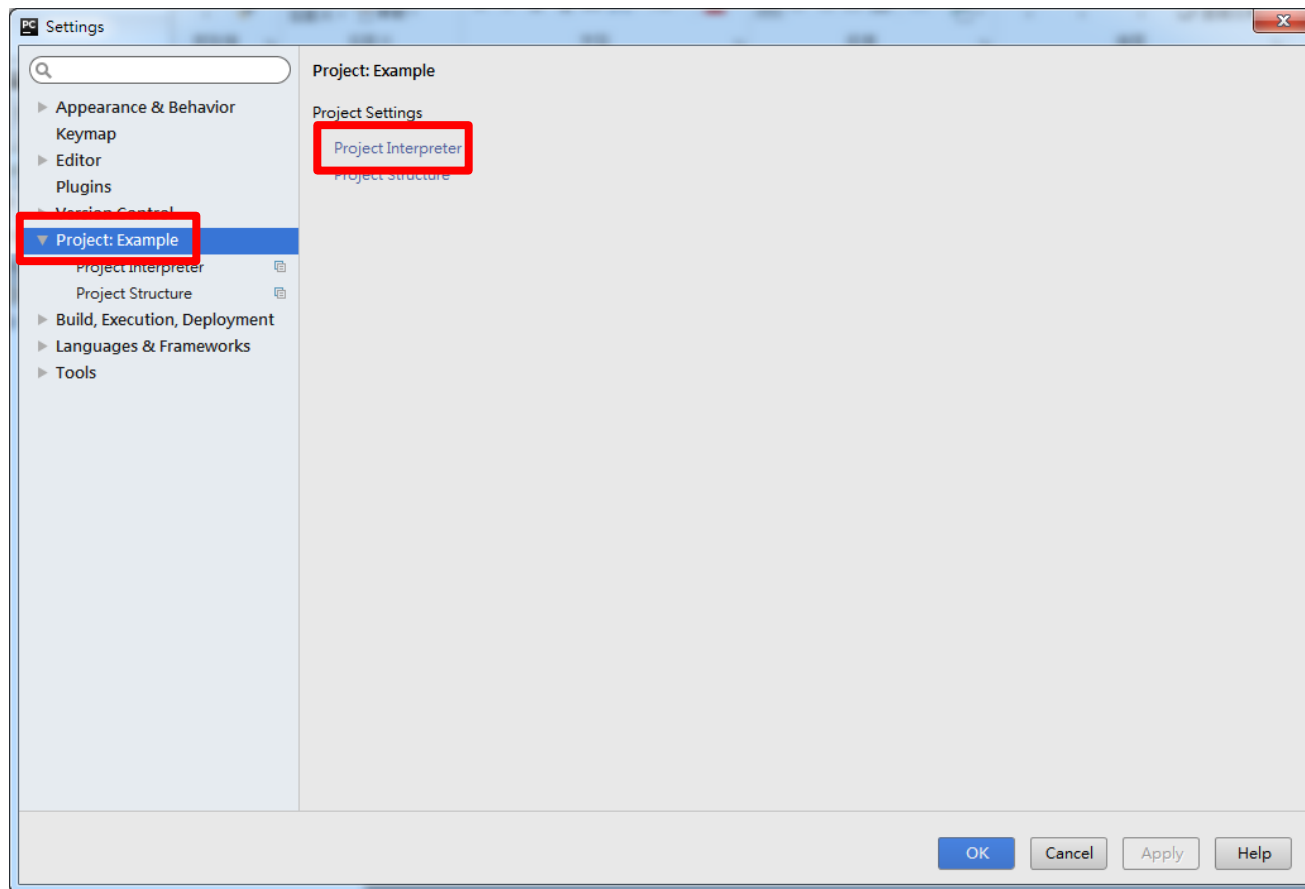
# Setting Interpreter

- File -> Setting



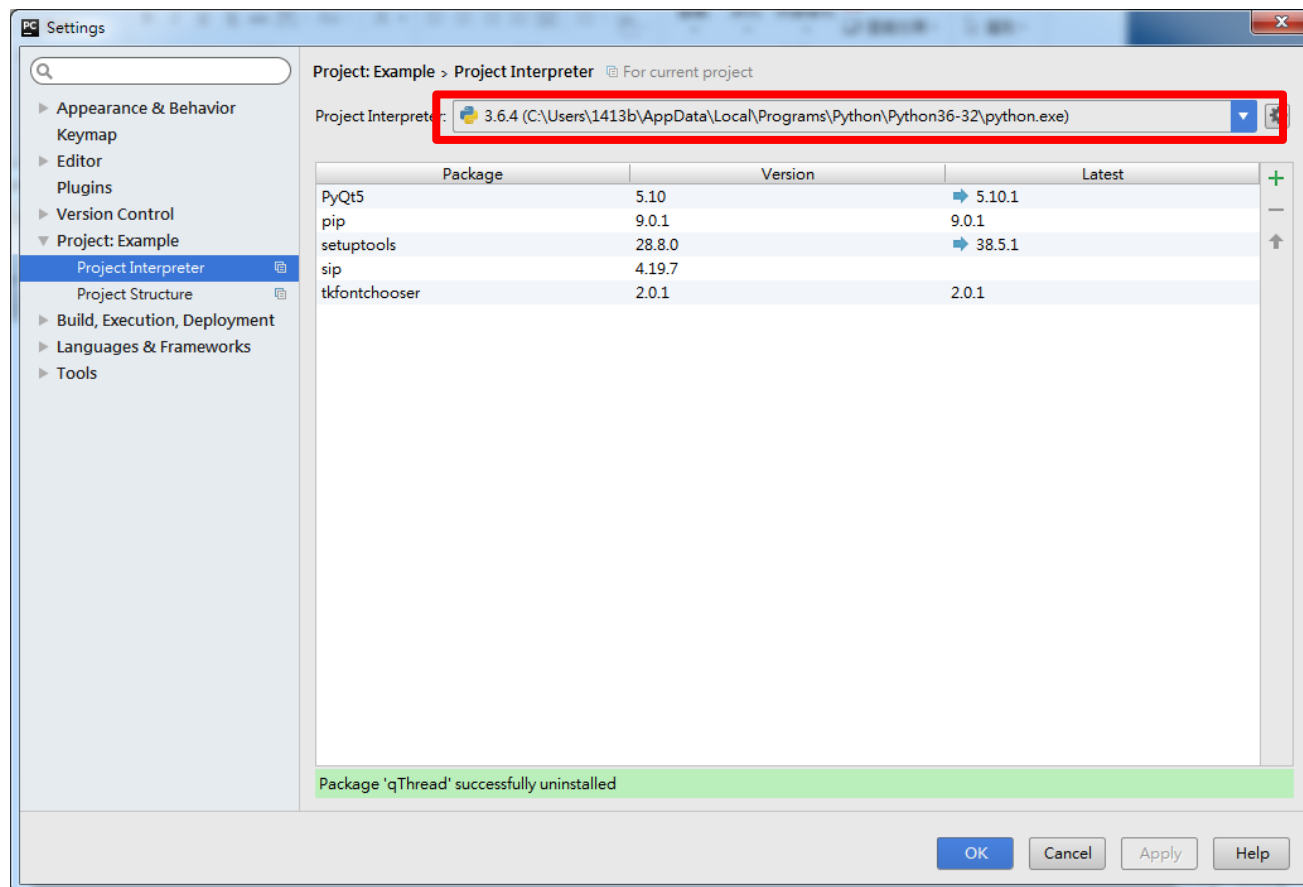
# Setting Interpreter

- Project -> Interpreter



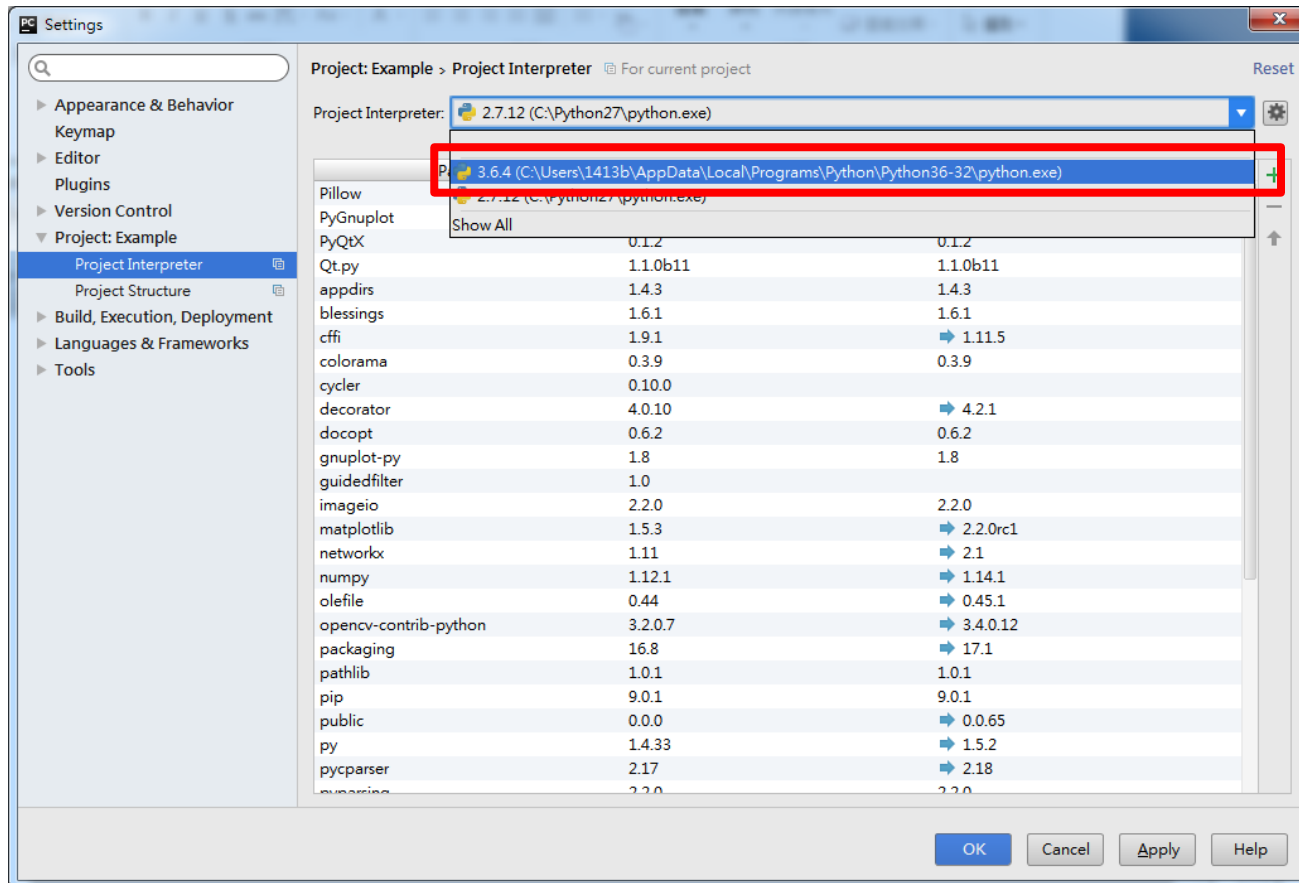
# Setting Interpreter

- Check the interpreter



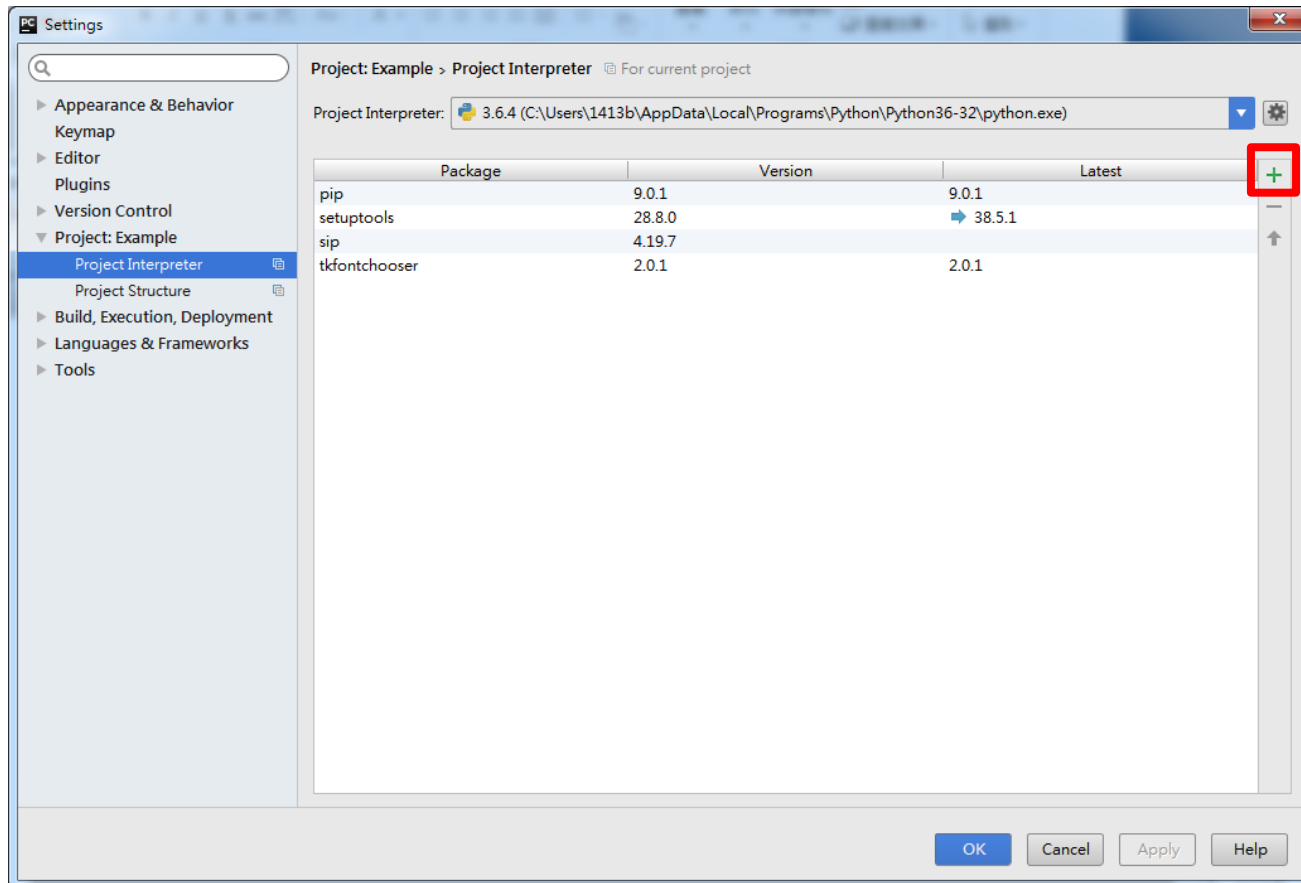
# Setting Interpreter

- Using python 3



# Install PyQt5

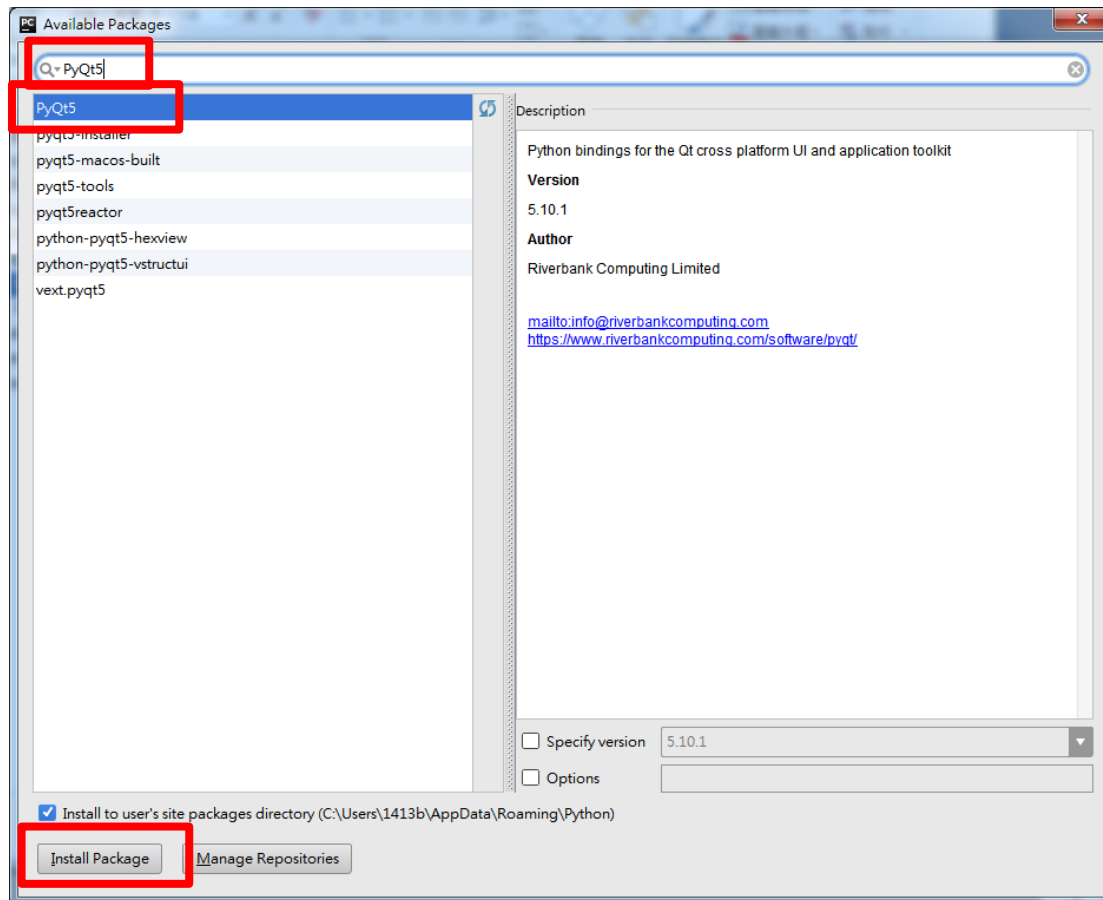
- Install PyQt5





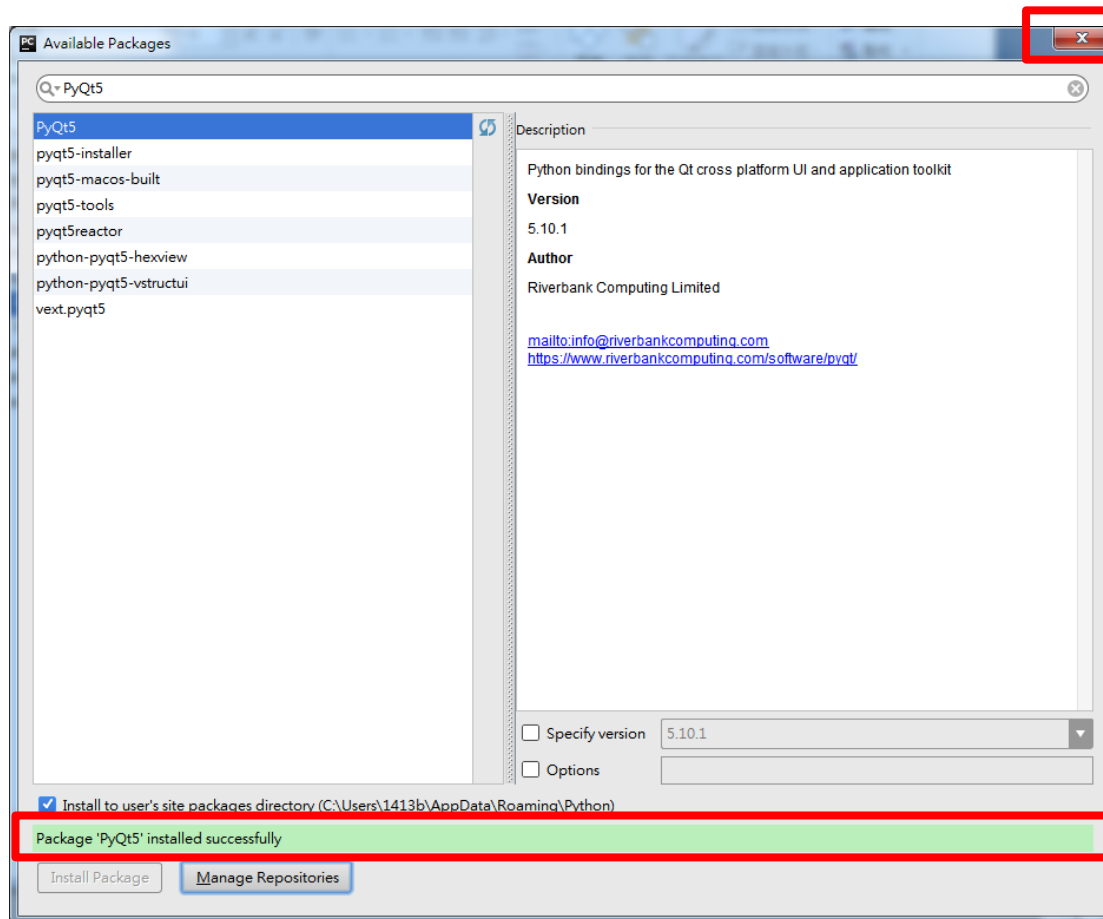
# Install PyQt5

- Install PyQt5



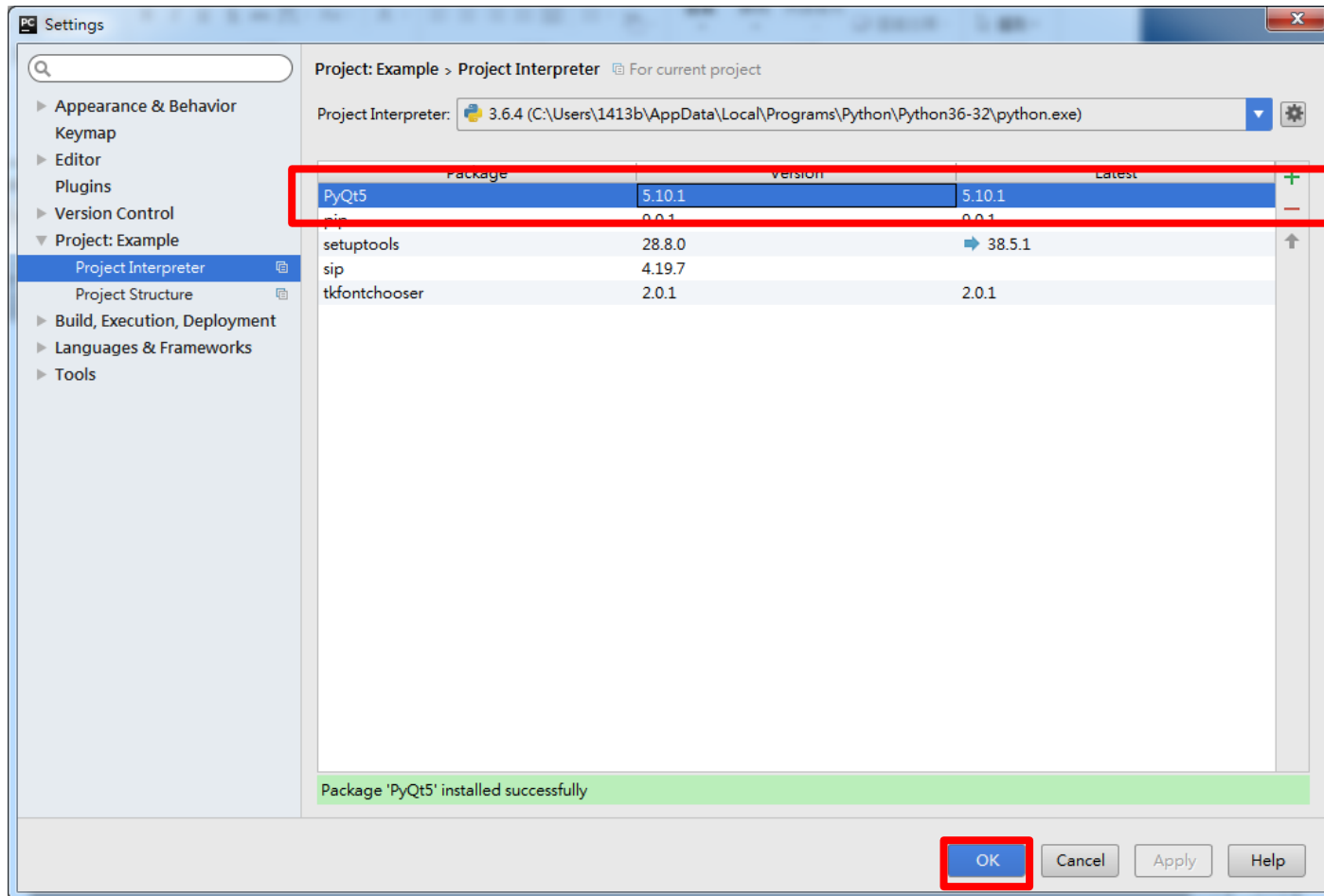
# Install PyQt5

- Install PyQt5



# Install PyQt5

- Install PyQt5



# Online Chat Room

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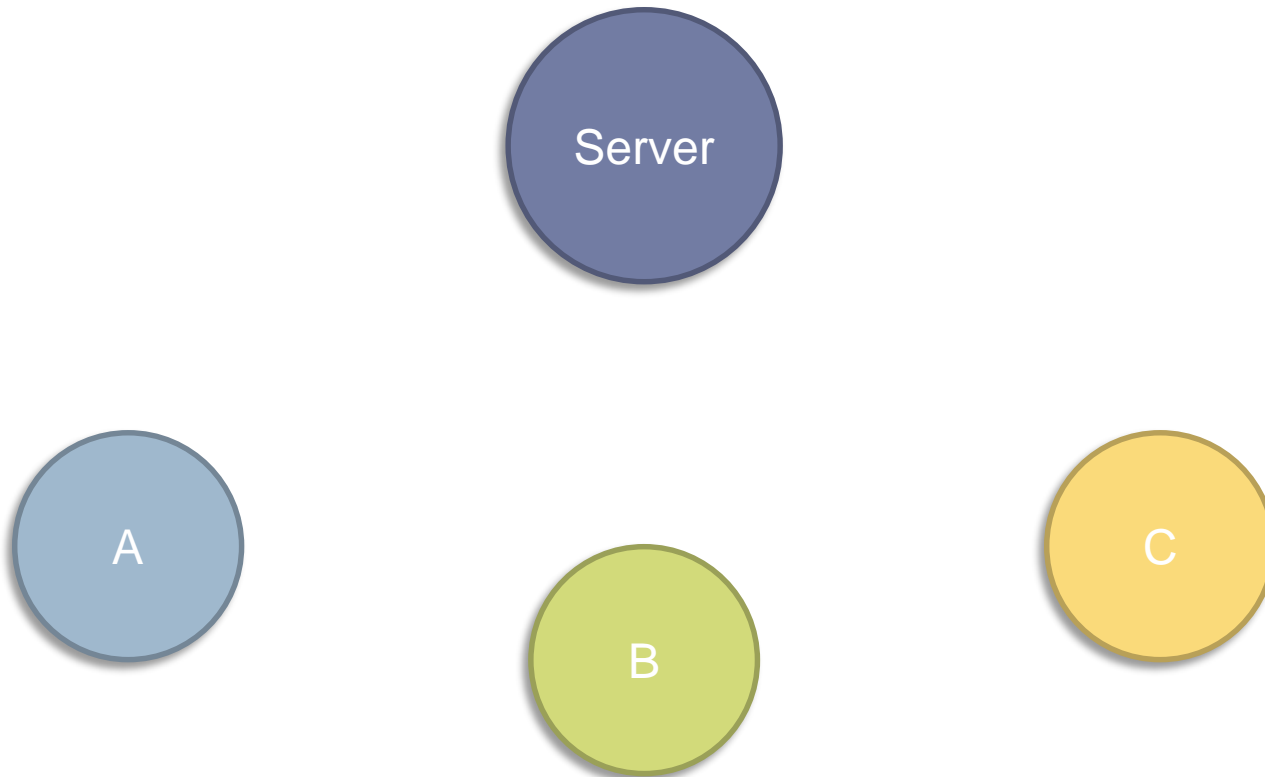
APP下載 運動網    登入

線上 5,796 人 | 觀看 31,222 人

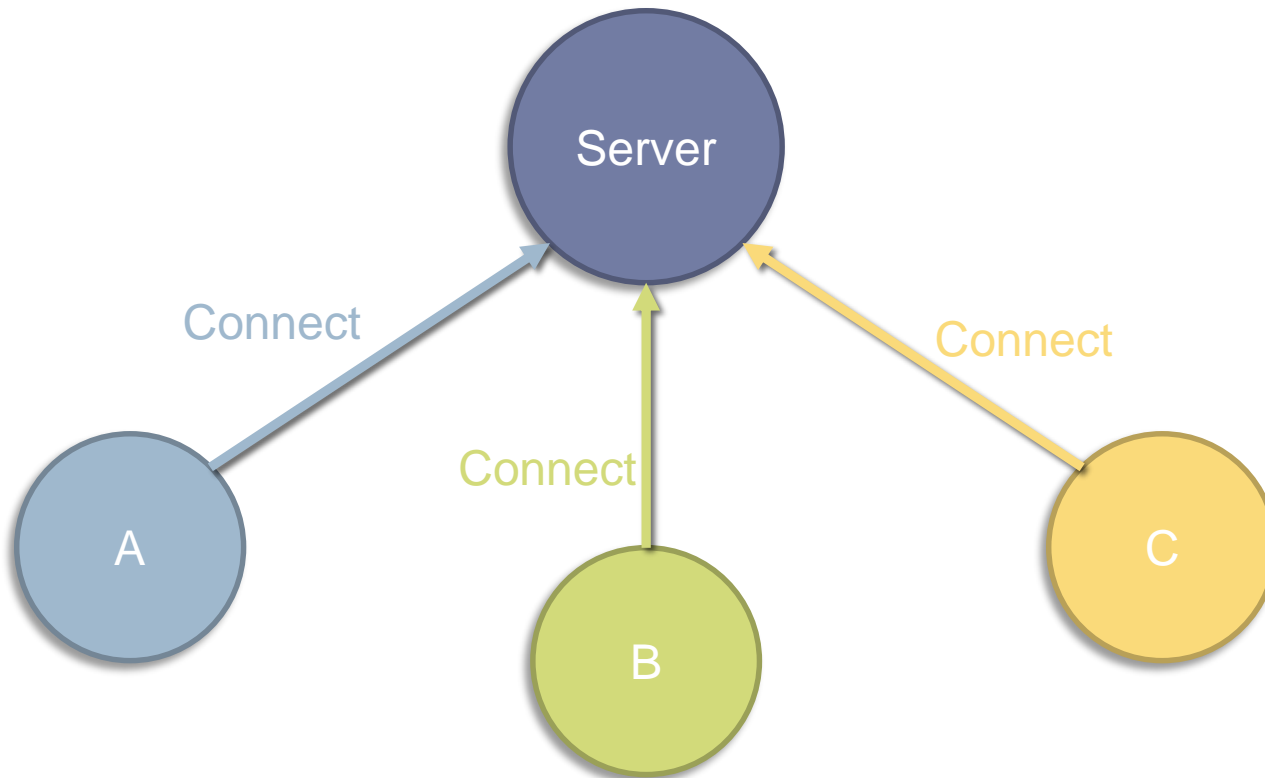
永不放棄：2軍打擊雙冠王  
吹食吸菸：勝波萬觀眾  
吳奕真：新廣告？  
Botolo：新廣告？  
Yao Sheng Hsu：南波萬  
Wu Egg：桃陽又輸就有可能，但也買紙一贏  
說候笑話 中職守備：邦邦新廣告？  
Li Jonny：陳文杰二軍開季打擊率第1成多，已經拉到快3成  
南波萬沒有極限：佔地為王  
地瓜萬打葉：新莊外野蠻爛的阿  
吳奕真：休息室感覺很棒  
小張：有錢真好

 尚未登入

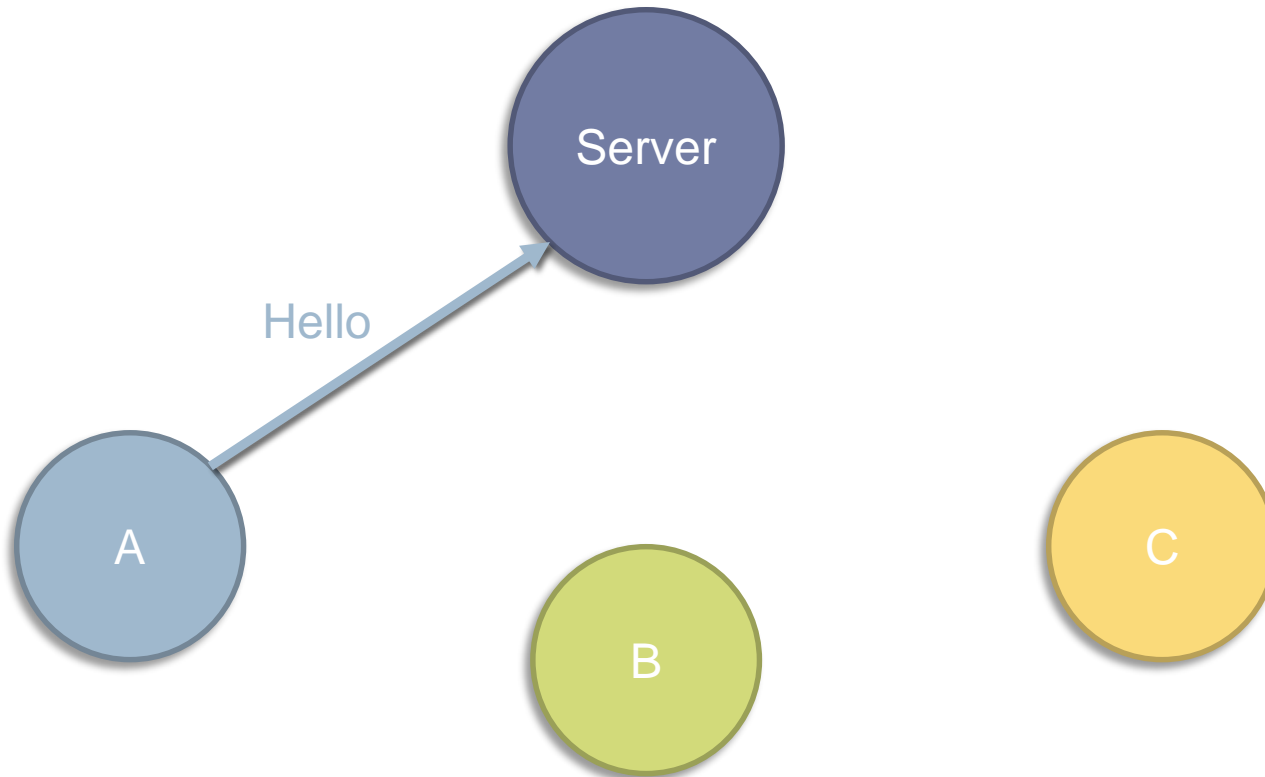
# Online Chat Room



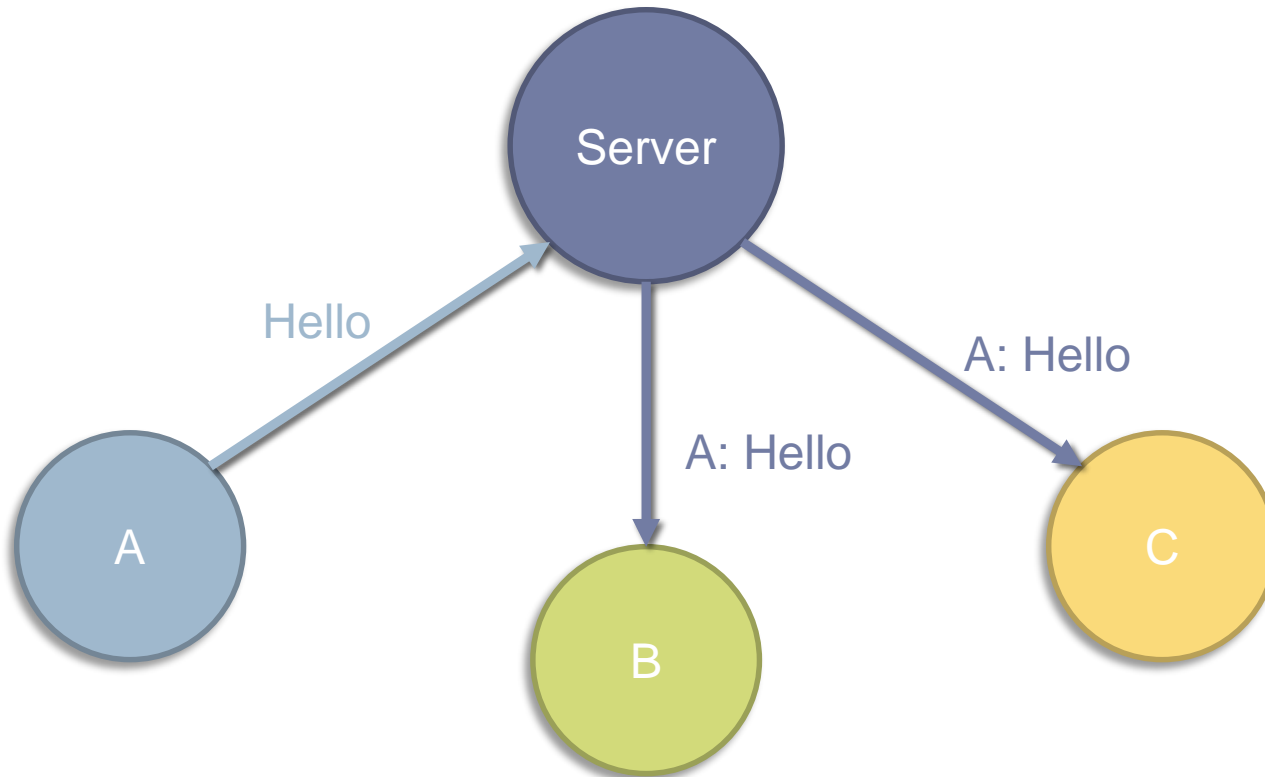
# Online Chat Room



# Online Chat Room



# Online Chat Room





# class Client

```
1 class Client:
2     def __init__(self, host, port):
3         sock = socket.socket(socket.AF_INET, socket.SOCK_STREAM)
4         self.sock = sock
5         self.sock.connect((host, port))
6         self.sock.send(b'1')
7
8     def sendThreadFunc(self):
9         while True:
10             try:
11                 myword = input()
12                 self.sock.send(myword.encode())
13             except ConnectionAbortedError:
14                 print('Server closed this connection!')
15             except ConnectionResetError:
16                 print('Server is closed!')
```

# class Client

```
17
18     def recvThreadFunc(self):
19         while True:
20             try:
21                 otherword = self.sock.recv(1024) # socket.recv(recv_size)
22                 print(otherword.decode())
23             except ConnectionAbortedError:
24                 print('Server closed this connection!')
25
26             except ConnectionResetError:
27                 print('Server is closed!')
```

# class Client

```
28
29 def main():
30     c = Client('localhost', 5550)
31     th1 = threading.Thread(target=c.sendThreadFunc)
32     th2 = threading.Thread(target=c.recvThreadFunc)
33     threads = [th1, th2]
34     for t in threads:
35         t.setDaemon(True)
36         t.start()
37     t.join()
38
39 if __name__ == "__main__":
40     main()
```

# class Server

```
1  #-*- encoding: utf-8 -*-
2  import socket
3  import threading
4  from time import gmtime, strftime
5
6
7  class Server:
8      def __init__(self, host, port):
9          sock = socket.socket(socket.AF_INET, socket.SOCK_STREAM)
10         self.sock = sock
11         self.sock.bind((host, port))
12         self.sock.listen(5) # Allow queue of 5 connections
13         print('Server', socket.gethostbyname(host), 'listening ...')
14         self.mylist = list()
15
```

# class Server

```
16     def checkConnection(self):
17         connection, addr = self.sock.accept()
18         print('Accept a new connection', connection.getsockname(),
19 connection.fileno())
20
21     try:
22         buf = connection.recv(1024).decode()
23         if buf == '1':
24             # start a thread for new connection
25             mythread = threading.Thread(target=self.subThreadIn,
26                                         args=(connection, connection.fileno()))
27             mythread.setDaemon(True)
28             mythread.start()
29         else:
30             connection.send(b'please go out!')
31             connection.close()
32     except:
33         pass
```

# class Server

```
34     def tellOthers(self, exceptNum, whatToSay):
35         for c in self.mylist:
36             if c.fileno() != exceptNum:
37                 try:
38                     c.send(whatToSay.encode())
39             except:
40                 pass
41
```

# class Server

```
42     def subThreadIn(self, myconnection, connNumber):
43         self.mylist.append(myconnection)
44         while True:
45             try:
46                 recvedMsg = myconnection.recv(1024).decode()
47                 if recvedMsg:
48                     self.tellOthers(connNumber, recvedMsg)
49             else:
50                 pass
51
52         except (OSError, ConnectionResetError):
53             try:
54                 self.mylist.remove(myconnection)
55             except:
56                 pass
57
58         myconnection.close()
59         return
```

# class Server

```
60
61 def main():
62     s = Server('localhost', 5550)
63     while True:
64         s.checkConnection()
65
66
67 if __name__ == "__main__":
68     main()
```



# Exercise – Chat Room



```
Run: Server (1) Client Client
/usr/bin/python3.5 "/home/hyc/code/Qt/Week 1/newCode/Client.py"
Welcome to chat room! 歡迎到聊天室
Input your nickname: A Nickname
Now Lets Chat, A 歡迎自己

SYSTEM: B in the chat room 歡迎別人SYSTEM: other in the chat room
A:
hello

B :hi [10:04:10] 聊天時間 (Server's time)
A:
加分題：某人離開聊天室提示語
```