

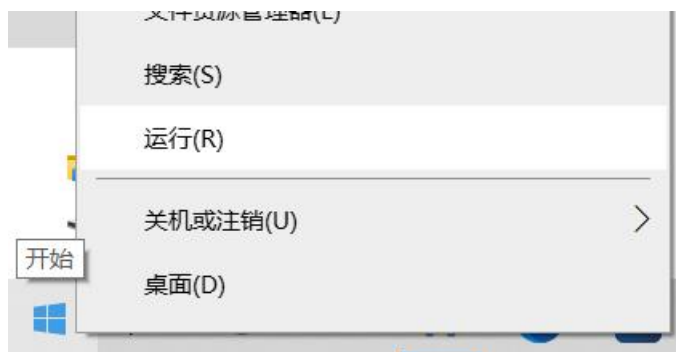
用 pip 安装第三方库(PyQt5 人机接口 GUI 库)安装指南

中原工学院 电信学院 自动化系《高级语言上机实习》ZHF

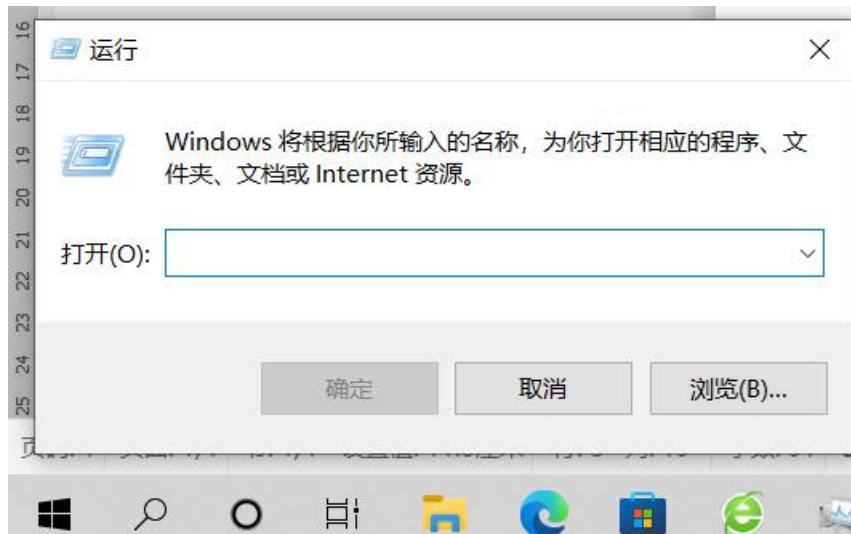
1、联网，有网络。

2、从 Windows 操作系统进入 DOS 操作系统

鼠标放在 Windows 操作系统视窗左下角【开始】位置，单击鼠标右键，弹出以下界面：

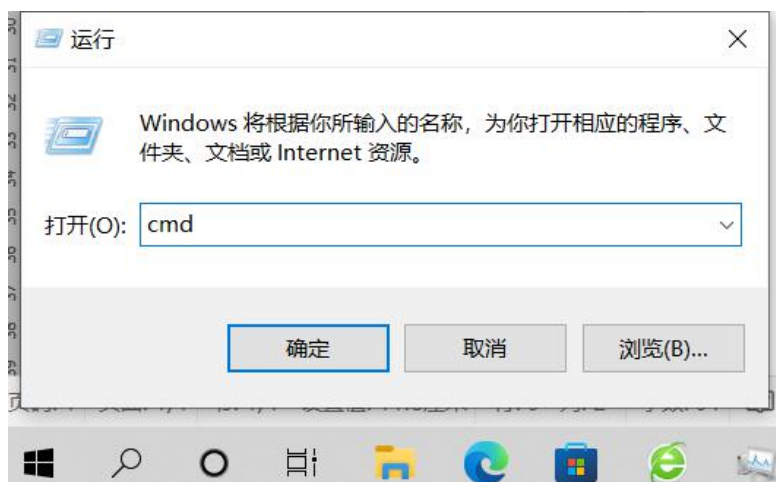


3、鼠标左键单击【运行】，弹出以下界面：

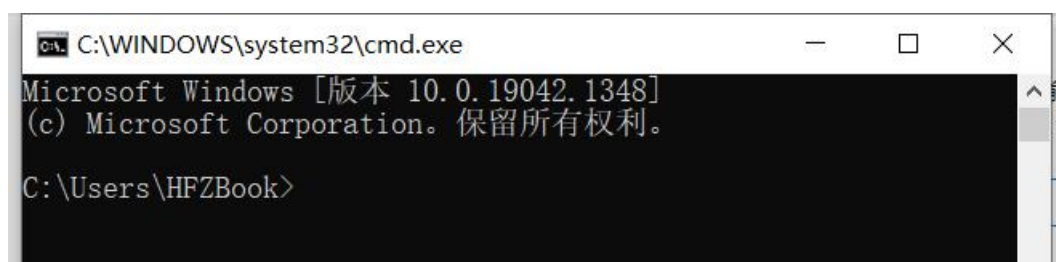


4、键入 cmd

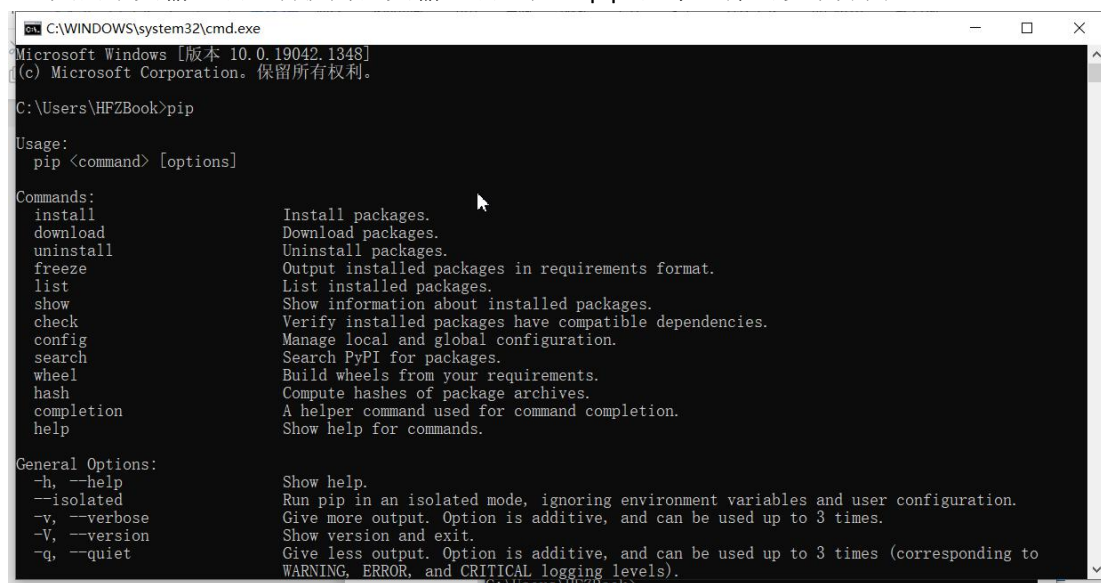
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5、按【回车】键或【确定】，进入 DOS 操作系统，弹出以下界面：



6、关闭中文输入法，切换为西文输入法，键入 pip 回车，弹出以下界面：



说明 Python 的 pip 指令可用。

7、pip 指令最常用的 5 个 command



```
list                                List installed packages.
```

```
show                                Show information about installed packages.
```

```
help                                Show help for commands.
```

8、安装 PyQt5 第三方库

```
C:\Users\HFZBook>pip install PyQt5_
```

```
C:\Users\HFZBook>pip install PyQt5
Collecting PyQt5
  Downloading https://files.pythonhosted.org/packages/3b/27/fd81188a35f
/PyQt5-5.15.6.tar.gz (3.2MB)
    100% | 3.2MB 3.3MB/s
```

```
Command "c:\program files\python37\python.exe" -m pip install --ignore-installed --no-
user --prefix C:\Users\HFZBook\AppData\Local\Temp\pip-build-env-66x8lfyv --no-warn-scri
pt-location --no-binary :none: --only-binary :none: -i https://pypi.org/simple -- "sip
">=6.4, <7" "PyQt-builder >=1.9, <2" failed with error code 1 in None
You are using pip version 18.1, however version 21.3.1 is available.
You should consider upgrading via the 'python -m pip install --upgrade pip' command.

C:\Users\HFZBook>
C:\Users\HFZBook>
```

9、如果安装失败，附加参数--user，尝试重新安装

```
C:\Users\HFZBook>pip install PyQt5 --user
```

```
选择C:\WINDOWS\system32\cmd.exe
copying sipbuild\module\source\13\voidptr.c -> build\lib.win-amd64-3.7\sipbuild\module\source\13
running build_ext
building 'sipbuild.code_generator' extension
error: Microsoft Visual C++ 14.0 or greater is required. Get it with "Microsoft C++ Build Tools": https://visualstudio.microsoft.com/visual-cpp-build-tools/

-----
Command "c:\program files\python37\python.exe" -u -c "import setuptools, tokenize;__file__='C:\Users\HFZBook\AppData\Local\Temp\pip-install-d5y6eceo\sip\setup.py';f=getattr(tokenize, 'open', open)(__file__);code=f.read().replace('\r\n', '\n');f.close();exec(compile(code, __file__, 'exec'))" install --record C:\Users\HFZBook\AppData\Local\Temp\pip-record-quj8xnx8\install-record.txt --single-version-externally-managed --prefix C:\Users\HFZBook\AppData\Local\Temp\pip-build-env-e_y6t836 --compile failed with error code 1 in C:\Users\HFZBook\AppData\Local\Temp\pip-install-d5y6eceo\sip\
You are using pip version 18.1, however version 21.3.1 is available.
You should consider upgrading via the 'python -m pip install --upgrade pip' command.

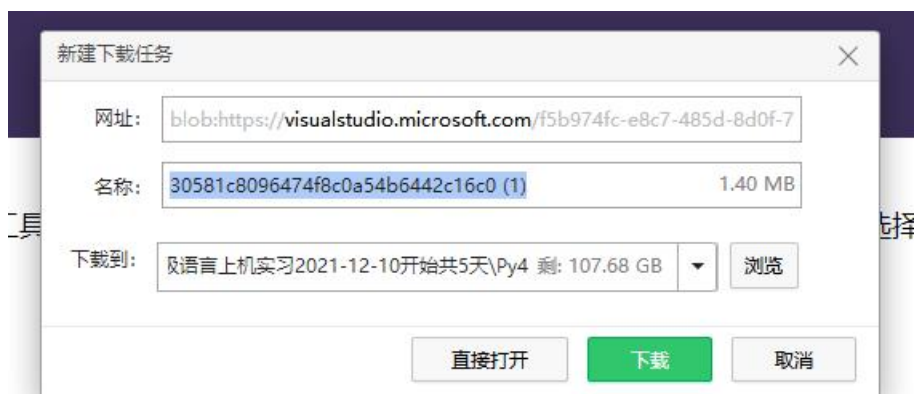
-----
Command "c:\program files\python37\python.exe" -m pip install --ignore-installed --no-user --prefix C:\Users\HFZBook\AppData\Local\Temp\pip-build-env-e_y6t836 --no-warn-script-location --no-binary :none: --only-binary :none: -i https://pypi.org/simple -- "sip" >=6.4, <7 "PyQt-builder" >=1.9, <2" failed with error code 1 in None
You are using pip version 18.1, however version 21.3.1 is available.
You should consider upgrading via the 'python -m pip install --upgrade pip' command.

C:\Users\HFZBook>
```

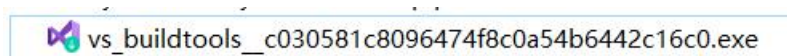
10、如果安装失败，复制 <https://visualstudio.microsoft.com/visual-cpp-build-tools/> 粘贴到浏览器



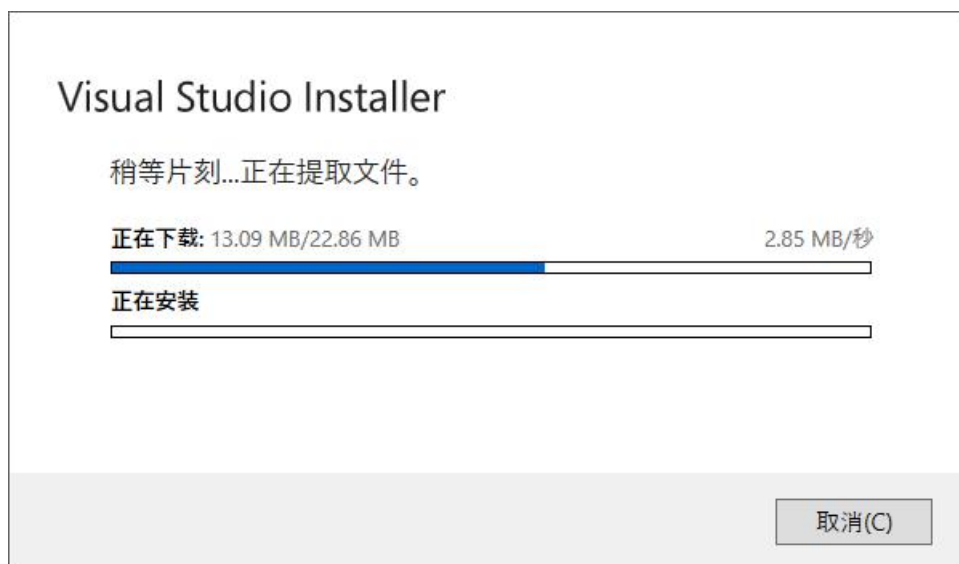
11、单击【下载生成工具】，弹出以下界面：



12、下载到本地硬盘



13、以管理员身份，运行该 exe 文件

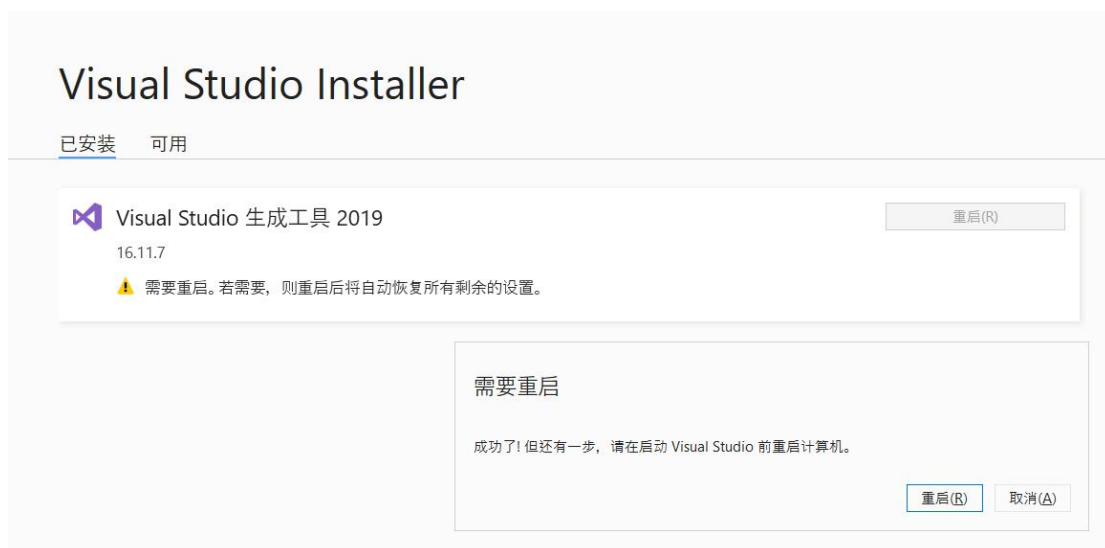


14、单击【修改】，打勾【使用 C++桌面开发】

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15、单击右下角【修改】，安装 VC++桌面开发软件



16、关闭所有应用程序，单击【重启】计算机



17、重新启动计算机后，

18、继续安装第三方库 PyQt5

```
C:\Users\HFZBook>pip install PyQt5 --user_
```

```
C:\Users\HFZBook>pip install PyQt5 --user
Collecting PyQt5
  Using cached https://files.pythonhosted.org/packages/3b/27/fd81188a35f37be9b3b4c2db1654d9439d1418823916fe702ac3658c9c41/PyQt5-5.15.6.tar.gz
  Installing build dependencies ... done
  Complete output from command python setup.py egg_info:
  Traceback (most recent call last):
    File "<string>", line 1, in <module>
    File "c:\program files\python37\lib\tokenize.py", line 447, in open
      buffer = _builtin_open(filename, 'rb')
  FileNotFoundError: [Errno 2] No such file or directory: 'C:\Users\HFZBook\AppData\Local\Temp\pip-install-q4snml0k\PyQt5\setup.py'

-----
Command "python setup.py egg_info" failed with error code 1 in C:\Users\HFZBook\AppData\Local\Temp\pip-install-q4snml0k\PyQt5\
You are using pip version 18.1, however version 21.3.1 is available.
You should consider upgrading via the 'python -m pip install --upgrade pip' command.
```

仍然失败。

19、pip 是 2018 年的版本太低，更新（升级）pip

python -m pip install --upgrade pip

```
-----
Command "python setup.py egg_info" failed with error code 1 in C:\Users\HFZBook\AppData\Local\Temp\pip-install-s3_n0o4p\PyQt5\
You are using pip version 18.1, however version 21.3.1 is available.
You should consider upgrading via the 'python -m pip install --upgrade pip' command.

C:\Users\HFZBook>python -m pip install --upgrade pip
Collecting pip
  Downloading https://files.pythonhosted.org/packages/a4/6d/6463d49a933f547439d6b5b98b46af8742cc03ae83543e4d7688c2420f8b/pip-21.3.1-py3-none-any.whl (1.7MB)
    63% |#####| 1.1MB 63kB/s eta 0:00:10_
```

更新（升级）pip 失败

20、增加--user 之后，python -m pip install --upgrade pip --user

```
C:\Users\HFZBook>python -m pip install --upgrade pip --user
Collecting pip
  Using cached https://files.pythonhosted.org/packages/a4/6d/6463d49a933f547439d6b5b98b46af8742cc03ae83543e4d7688c2420f8b/pip-21.3.1-py3-none-any.whl
Installing collected packages: pip
Successfully installed pip-21.3.1

C:\Users\HFZBook>
```

更新（升级）pip 成功。

21、继续安装第三方库 PyQt5

```
C:\Users\HFZBook>pip install PyQt5 --user_
```



```
C:\Users\HFZBook>pip install PyQt5 --user
WARNING: pip is being invoked by an old script wrapper. This will fail in a future
version of pip.
Please see https://github.com/pypa/pip/issues/5599 for advice on fixing the underl
ying issue.
To avoid this problem you can invoke Python with '-m pip' instead of running pip d
irectly.
Collecting PyQt5
  Downloading PyQt5-5.15.6-cp36-abi3-win_amd64.whl (6.7 MB)
    | 2.8 MB 88 kB/s eta 0:00:45
```


```
C:\WINDOWS\system32\cmd.exe
C:\Users\HFZBook>pip install PyQt5 --user
WARNING: pip is being invoked by an old script wrapper. This will fail in a future
version of pip.
Please see https://github.com/pypa/pip/issues/5599 for advice on fixing the underl
ying issue.
To avoid this problem you can invoke Python with '-m pip' instead of running pip d
irectly.
Collecting PyQt5
  Downloading PyQt5-5.15.6-cp36-abi3-win_amd64.whl (6.7 MB)
    | 6.7 MB 72 kB/s
Collecting PyQt5-Qt5>=5.15.2
  Downloading PyQt5-Qt5-5.15.2-py3-none-win_amd64.whl (50.1 MB)
    | 50.1 MB 501 kB/s
Collecting PyQt5-sip<13,>=12.8
  Downloading PyQt5-sip-12.9.0-cp37-cp37m-win_amd64.whl (62 kB)
    | 62 kB 770 kB/s
Installing collected packages: PyQt5-sip, PyQt5-Qt5, PyQt5
WARNING: The scripts pylupdate5.exe, pyrcc5.exe and pyuic5.exe are installed in
'C:\Users\HFZBook\AppData\Roaming\Python\Python37\Scripts' which is not on PATH.
Consider adding this directory to PATH or, if you prefer to suppress this warnin
g, use --no-warn-script-location.
Successfully installed PyQt5-5.15.6 PyQt5-Qt5-5.15.2 PyQt5-sip-12.9.0
C:\Users\HFZBook>
```

22、看到：**Successfully installed PyQt5-5.15.6 PyQt5-Qt5-5.15.2**
安装成功！

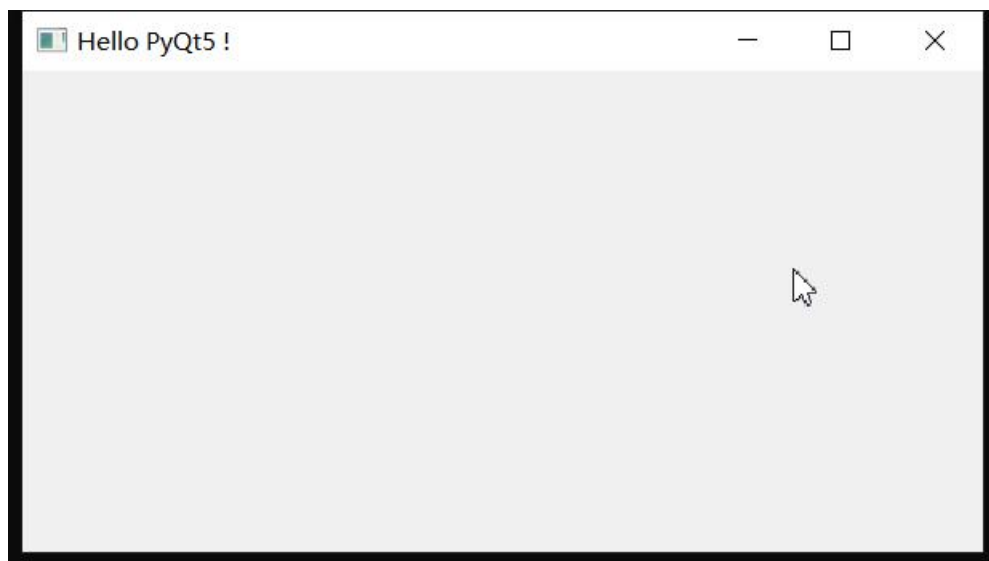
23、键入 exit 回车，退出 DOS 操作系统，返回 Windows

```
C:\Users\HFZBook>exit
```

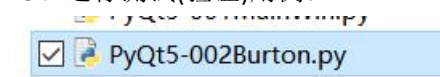
24、运行测试(验证)用例：

 PyQt5-001MainWin.py

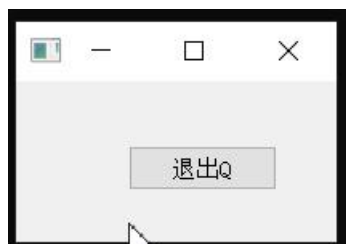
看到以下窗体，说明第三方库 PyQt5 安装成功



25、运行测试(验证)用例：



看到以下窗体，单击【退出】按钮，退出应用程序，返回 Windows 操作系统，说明第三方库 PyQt5 安装成功！



以上，以安装 PyQt5 库为例，介绍了 pip 安装第三方库的方法和可能遇到的问题及解决方法。

祝同学们顺利！

发现错误通过企业微信向老师指正，及时修订，谢谢！