

## 作业要求：

1. 安装Anaconda；安装虚拟环境，删除；
2. 运行课件附带所有的.ipynb文件；

## 实现过程：

### · 安装Anaconda

在官网下载并安装即可 <https://www.anaconda.com/products/distribution>

### · 安装、删除虚拟环境

在终端输入 conda create -n test python=3.9 创建新环境

```

zhanghanwen — conda create -n test python=3.9 — 113x36
To access the notebook, open this file in a browser:
  file:///Users/zhanghanwen/Library/Jupyter/runtime/nbserver-52124-open.html
Or copy and paste one of these URLs:
  http://localhost:8888/?token=9888b34a4608b9b665abd52839d2707fb82c2340e3b0aac7f
  or http://127.0.0.1:8888/?token=9888b34a4608b9b665abd52839d2707fb82c2340e3b0aac7f
[I 16:24:41.162 NotebookApp] Writing notebook-signing key to /Users/zhanghanwen/Library/Jupyter/notebook_secret
[W 16:24:41.163 NotebookApp] Notebook Desktop/CV_2022/Introduction to Python/Python-00.ipynb is not trusted
[I 16:24:41.759 NotebookApp] Kernel started: d6f8f077-1557-4a66-b228-cb89ef5ee85f, name: python3
[W 16:25:48.753 NotebookApp] Notebook Desktop/CV_2022/Introduction to Python/Python-01.ipynb is not trusted
[I 16:25:49.789 NotebookApp] Kernel started: 9a4a248a-0f66-4f9e-91ab-85c99c439150, name: python3
[I 16:26:00.134 NotebookApp] Starting buffering for 9a4a248a-0f66-4f9e-91ab-85c99c439150:85355c0235ae46d1a0f218f921036bf
[W 16:26:02.015 NotebookApp] Notebook Desktop/CV_2022/Introduction to Python/Python-02.ipynb is not trusted
[I 16:26:02.911 NotebookApp] Kernel started: f8591979-8d40-4623-a1be-3c649d0dbc7b, name: python3
[W 16:26:21.623 NotebookApp] Notebook Desktop/CV_2022/Introduction to Python/Python-03.ipynb is not trusted
[I 16:26:23.870 NotebookApp] Kernel started: c718e3c1-8fe9-41aa-a0a6-a17eacff8ae7, name: python3
[I 16:26:36.753 NotebookApp] Starting buffering for c718e3c1-8fe9-41aa-a0a6-a17eacff8ae7:47cc383529594c758fa355d5c380d465
[I 16:26:41.720 NotebookApp] Saving file at /Desktop/CV_2022/Introduction to Python/Python-00.ipynb
[W 16:26:41.723 NotebookApp] Notebook Desktop/CV_2022/Introduction to Python/Python-00.ipynb is not trusted
[C I 16:26:56.076 NotebookApp] 中断
启动 notebooks 在本地路径：/Users/zhanghanwen
4 活跃的服务
Jupyter Notebook 6.4.5 is running at:
http://localhost:8888/?token=9888b34a4608b9b665abd52839d2707fb82c2340e3b0aac7f
  or http://127.0.0.1:8888/?token=9888b34a4608b9b665abd52839d2707fb82c2340e3b0aac7f
关闭服务 /y/[n]y
[ C I 16:26:57.556 NotebookApp] 关闭确定
[I 16:26:57.558 NotebookApp] 关闭 4 服务
[I 16:26:57.767 NotebookApp] Kernel shutdown: d6f8f077-1557-4a66-b228-cb89ef5ee85f
[I 16:26:57.768 NotebookApp] Kernel shutdown: 9a4a248a-0f66-4f9e-91ab-85c99c439150
[I 16:26:57.768 NotebookApp] Kernel shutdown: f8591979-8d40-4623-a1be-3c649d0dbc7b
[I 16:26:57.768 NotebookApp] Kernel shutdown: c718e3c1-8fe9-41aa-a0a6-a17eacff8ae7
[I 16:26:57.768 NotebookApp] Shutting down 0 terminals
zhanghanwen@zhanghanwendeMacBook-Air ~ % conda create -n test python=3.9
Collecting package metadata (current repodata.json): | ]
```

使用 conda env list 查看所有环境，可以发现test环境已经成功创建

```

zhanghanwen — zsh — 113x36
unidecode          1.2.0      pyhd3eb1b0_0
unixodbc           2.3.9      ha1f1e3a3_0
urllib3            1.26.7     pyhd3eb1b0_0
watchdog            2.1.3      py39hd5f6b7e_0
wcwidth             0.2.5      pyhd3eb1b0_0
webencodings       0.5.1      py39hecd8cb5_1
werkzeug            2.0.2      pyhd3eb1b0_0
wheel               0.37.0     pyhd3eb1b0_1
whichcraft          0.6.1      pyhd3eb1b0_0
widgetsnbextension 3.5.1      py39hecd8cb5_0
wrapt               1.12.1     py39h9ed2024_1
wurlitzer           2.1.1      py39hecd8cb5_0
xlrd                2.0.1      pyhd3eb1b0_0
xlsxwriter         3.0.1      pyhd3eb1b0_0
xlwings              0.24.9     py39hecd8cb5_0
xlwt                1.3.0      py39hecd8cb5_0
xmltodict           0.12.0     pyhd3eb1b0_0
xz                  5.2.5      h1de35cc_0
yaml                0.2.5      ha1f1e3a3_0
yapf                0.31.0     pyhd3eb1b0_0
zeromq              4.3.4      h23ab428_0
zfp                 0.5.5      h23ab428_6
zict                2.0.0      pyhd3eb1b0_0
zipp                3.6.0      pyhd3eb1b0_0
zlib                1.2.11     h1de35cc_3
zope                1.0       py39hecd8cb5_1
zope.event          4.5.0      py39hecd8cb5_0
zope.interface      5.4.0      py39h9ed2024_0
zstd                1.4.9      h322a384_0
zhanghanwen@zhanghanwendeMacBook-Air ~ % conda env list
# conda environments:
#
base                  /Users/zhanghanwen/opt/anaconda3
test                  /Users/zhanghanwen/opt/anaconda3/envs/test
zhanghanwen@zhanghanwendeMacBook-Air ~ % ]
```

## 使用 conda install nb\_conda 命令安装 nb\_conda 包

```
[I 16:23:05.245 NotebookApp] Shutting down 0 terminals
zhanghanwen@zhanghanwendeMacBook-Air ~ % conda install nb_conda
Collecting package metadata (current_repodata.json): done
Solving environment: done

## Package Plan ##

environment location: /Users/zhanghanwen/opt/anaconda3

added / updated specs:
- nb_conda

The following packages will be downloaded:

  package          | build
  conda-4.14.0    | py39hecd8cb5_0      925 KB
  nb_conda-2.2.1  | py39hecd8cb5_1      33 KB
  nb_conda_kernels-2.3.1 | py39hecd8cb5_0      33 KB
Total:           991 KB

The following NEW packages will be INSTALLED:

  nb_conda          pkgs/main/osx-64::nb_conda-2.2.1-py39hecd8cb5_1
  nb_conda_kernels   pkgs/main/osx-64::nb_conda_kernels-2.3.1-py39hecd8cb5_0

The following packages will be UPDATED:

  conda             4.10.3-py39hecd8cb5_0 --> 4.14.0-py39hecd8cb5_0

Proceed ([y]/n)?
```

在终端输入 source activate test，进入 test 环境，在test环境安装 jupyter 包

```
zhanghanwen@zhanghanwendeMacBook-Air ~ % conda activate test
CommandNotFoundError: Your shell has not been properly configured to use 'conda activate'.
To initialize your shell, run

  $ conda init <SHELL_NAME>

Currently supported shells are:
- bash
- fish
- tcsh
- xonsh
- zsh
- powershell

See 'conda init --help' for more information and options.
IMPORTANT: You may need to close and restart your shell after running 'conda init'.

zhanghanwen@zhanghanwendeMacBook-Air ~ % source activate test
(test) zhanghanwen@zhanghanwendeMacBook-Air ~ % pip install jupyter -i
Usage:
  pip install [options] <requirement specifier> [package-index-options] ...
  pip install [options] -r <requirements file> [package-index-options] ...
  pip install [options] [-e] <vcs project url> ...
  pip install [options] [-e] <local project path> ...
  pip install [options] <archive url/path> ...

-i option requires 1 argument
(test) zhanghanwen@zhanghanwendeMacBook-Air ~ % pip install jupyter
Collecting jupyter
  Downloading jupyter-1.0.0-py2.py3-none-any.whl (2.7 kB)
Collecting ipywidgets
  Downloading ipywidgets-8.0.2-py3-none-any.whl (134 kB)
```

此时打开 jupyter notebook 可以看到：刚刚创建的 test 环境已经可以在 notebook 使用



使用 conda deactivate 退出 test 环境，输入 conda remove -n test --all，删除 test

```
[C 16:41:41.127 NotebookApp] 关闭确定
[I 16:41:41.130 NotebookApp] 关闭 0 服务
[I 16:41:41.130 NotebookApp] Shutting down 0 terminals
[(test) zhanghanwen@zhanghanwendeMacBook-Air ~ % source deactivate
DeprecationWarning: 'source deactivate' is deprecated. Use 'conda deactivate'.
|zhanghanwen@zhanghanwendeMacBook-Air ~ % conda remove -n test --all
Remove all packages in environment /Users/zhanghanwen/opt/anaconda3/envs/test:

## Package Plan ##

environment location: /Users/zhanghanwen/opt/anaconda3/envs/test

The following packages will be REMOVED:

ca-certificates-2022.07.19-hecd8cb5_0
certifi-2022.6.15-py39hecd8cb5_0
libcxx-14.0.6-h9765a3e_0
libffi-3.3-hb1e8313_2
ncurses-6.3-hca72ff7f_3
openssl-1.1.1q-hca72ff7f_0
pip-22.1.2-py39hecd8cb5_0
python-3.9.13-hdfd78df_1
readline-8.1.2-hca72ff7f_1
setuptools-63.4.1-py39hecd8cb5_0
sqlite-3.39.2-h707629a_0
tk-8.6.12-h5d9f67b_0
tzdata-2022c-h04d1e81_0
wheel-0.37.1-pyhd3eb1b0_0
xz-5.2.5-hca72ff7f_1
zlib-1.2.12-h4dc903c_3

Proceed ([y]/n)?
```

此时使用 conda env list 查看所有环境，已经没有 test 环境了，打开 jupyter notebook，也没有 test 环境，说明已经成功删除 test 环境

```
## Package Plan ##

environment location: /Users/zhanghanwen/opt/anaconda3/envs/test

The following packages will be REMOVED:

ca-certificates-2022.07.19-hecd8cb5_0
certifi-2022.6.15-py39hecd8cb5_0
libcxx-14.0.6-h9765a3e_0
libffi-3.3-hb1e8313_2
ncurses-6.3-hca72ff7f_3
openssl-1.1.1q-hca72ff7f_0
pip-22.1.2-py39hecd8cb5_0
python-3.9.13-hdfd78df_1
readline-8.1.2-hca72ff7f_1
setuptools-63.4.1-py39hecd8cb5_0
sqlite-3.39.2-h707629a_0
tk-8.6.12-h5d9f67b_0
tzdata-2022c-h04d1e81_0
wheel-0.37.1-pyhd3eb1b0_0
xz-5.2.5-hca72ff7f_1
zlib-1.2.12-h4dc903c_3

Proceed ([y]/n)? y

Preparing transaction: done
Verifying transaction: done
Executing transaction: done
[zhanghanwen@zhanghanwendeMacBook-Air ~ % conda env list
# conda environments:
#
base          /Users/zhanghanwen/opt/anaconda3
zhanghanwen@zhanghanwendeMacBook-Air ~ %]
```



- 运行所有 .ipynb 文件

Python-00 – Jupyter Notebook.pdf

Python-01 – Jupyter Notebook.pdf

Python-02 – Jupyter Notebook.pdf

Python-03 – Jupyter Notebook.pdf



文件 编辑 查看 插入 单元格 服务 Widgets 帮助

不可信

Python 3 (ipykernel) ○



```
In [42]: class Animal(object):
    def __init__(self, name):
        self.name = name
    def greet(self):
        print ('Hello, I am %s.' % self.name)

class Dog(Animal):
    def greet(self):
        print ('WangWang..., I am %s.' % self.name)

dog3 = Dog('dog3')
dog3.greet()
```

WangWang..., I am dog3.

```
In [43]: class Animal(object):
    def __init__(self, name):
        self.name = name
    def greet(self):
        print ('Hello, I am %s.' % self.name)

class Dog(Animal):
    def greet(self):
        super(Dog, self).greet()
        print ('WangWang...')

dog3 = Dog('dog3')
dog3.greet()
```

Hello, I am dog3.  
WangWang...

In [ ]:



文件 编辑 查看 插入 单元格 服务 Widgets 帮助

不可信

Python 3 (ipykernel) ○



```
        print("We have 4 even numbers")
        break

# Mosh answer
count = 0
for number in range(1, 10):
    if number % 2 == 0:
        count = count + 1
        print(number)
print(f"we have {count} even number")
```

# In my answer I did not count the numbers

```
2
4
6
8
We have 4 even numbers
2
4
6
8
we have 4 even number
```

In [ ]:

In [ ]:

In [ ]:

In [ ]:

In [ ]: **for**  
 **for**

In [ ]:

In [ ]:



文件 编辑 查看 插入 单元格 服务 Widgets 帮助

不可信

Python [conda env:root] \* ○



```
ValueError: 'h' is not in list
```

```
In [39]: # Example 1
if "d" in letters:
    print(letters.index("d"))

# Exemple 2
print(letters.count("m"))
```

```
3
0
```

```
In [40]: # 07 Sorting Lists

numbers = [5, 51, 2, 15, 6]
print(numbers)

# sort numbers with the sort() method
numbers.sort()
print(numbers)

numbers.sort(reverse=True)
print(numbers)
```

```
[5, 51, 2, 15, 6]
[2, 5, 6, 15, 51]
[51, 15, 6, 5, 2]
```

```
In [41]: numbers = [5, 51, 2, 15, 6]
print(numbers)
# The sort function can be used an it will creat a new list
print(sorted(numbers))
print(sorted(numbers, reverse=True))
print(numbers)
```

```
[5, 51, 2, 15, 6]
[2, 5, 6, 15, 51]
[51, 15, 6, 5, 2]
[5, 51, 2, 15, 6]
```



文件 编辑 查看 插入 单元格 服务 Widgets 帮助

不可信

Python 3 (ipykernel) ○

apple  
banana  
cherry

In [114]: # Using a While Loop  
thistuple = ("apple", "banana", "cherry")  
i = 0  
while i < len(thistuple):  
 print(thistuple[i])  
 i = i + 1

apple  
banana  
cherry

In [115]: # Join Two Tuples  
tuple1 = ("a", "b", "c")  
tuple2 = (1, 2, 3)  
  
tuple3 = tuple1 + tuple2  
print(tuple3)

('a', 'b', 'c', 1, 2, 3)

In [116]: # Multiply Tuples  
fruits = ("apple", "banana", "cherry")  
mytuple = fruits \* 2  
  
print(mytuple)

('apple', 'banana', 'cherry', 'apple', 'banana', 'cherry')

In [ ]: