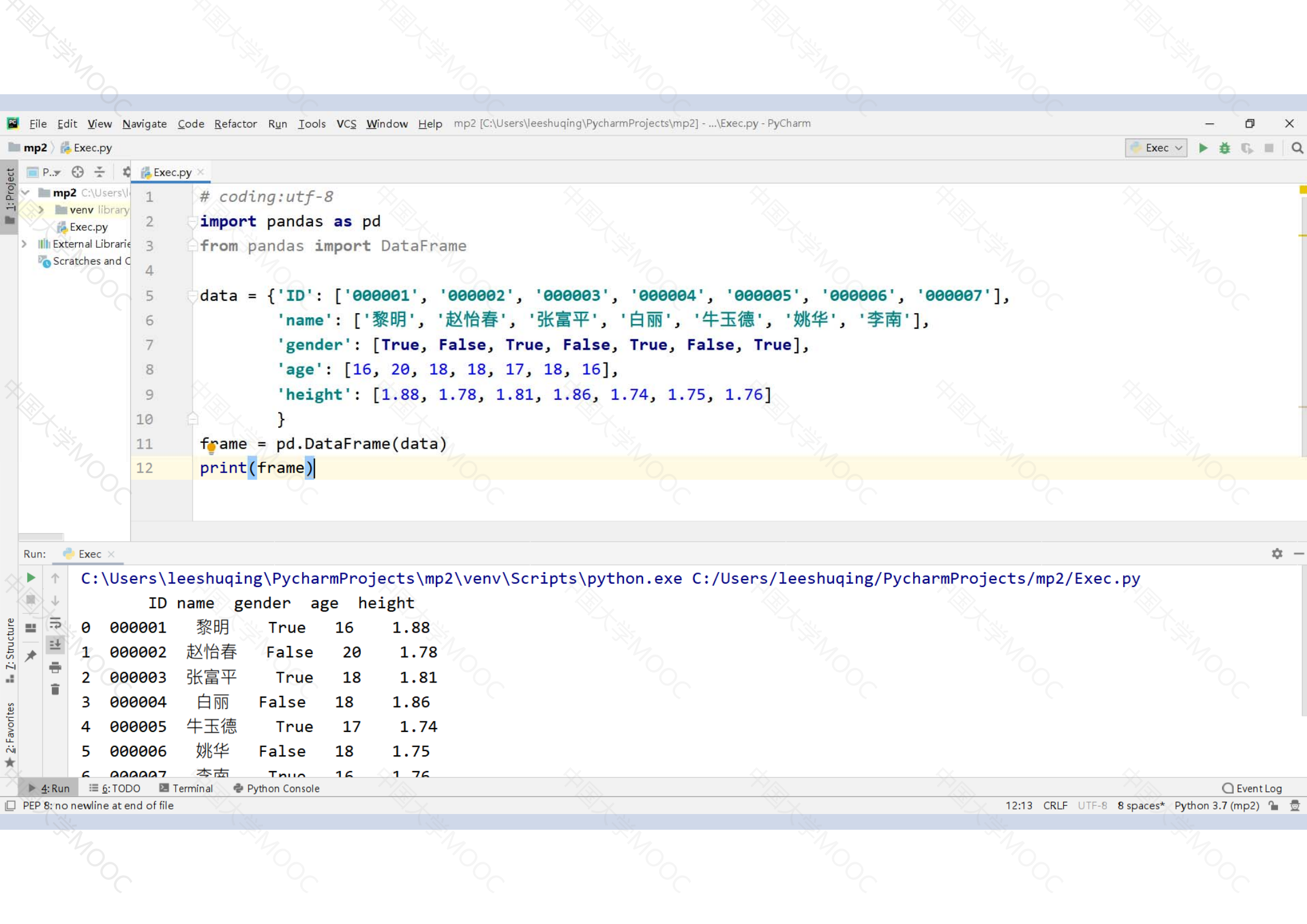


# Python大数据分析

## 五、数据的排序



```
1 # coding:utf-8
2 import pandas as pd
3 from pandas import DataFrame
4
5 data = {'ID': ['000001', '000002', '000003', '000004', '000005', '000006', '000007'],
6         'name': ['黎明', '赵怡春', '张富平', '白丽', '牛玉德', '姚华', '李南'],
7         'gender': [True, False, True, False, True, False, True],
8         'age': [16, 20, 18, 18, 17, 18, 16],
9         'height': [1.88, 1.78, 1.81, 1.86, 1.74, 1.75, 1.76]}
10
11 frame = pd.DataFrame(data)
12 print(frame)
```

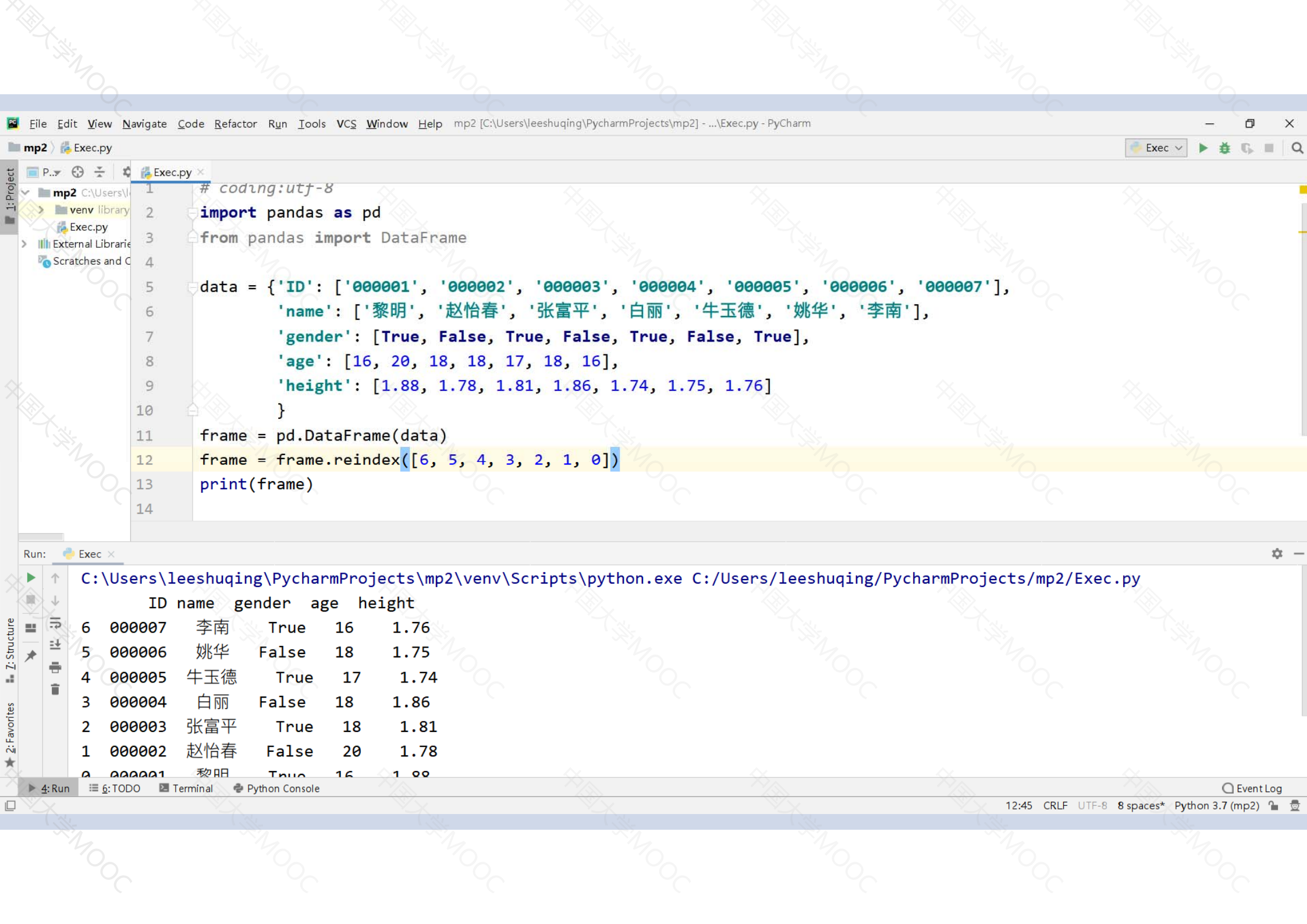
C:\Users\leeshuqing\PycharmProjects\mp2\venv\Scripts\python.exe C:/Users/leeshuqing/PycharmProjects/mp2/Exec.py

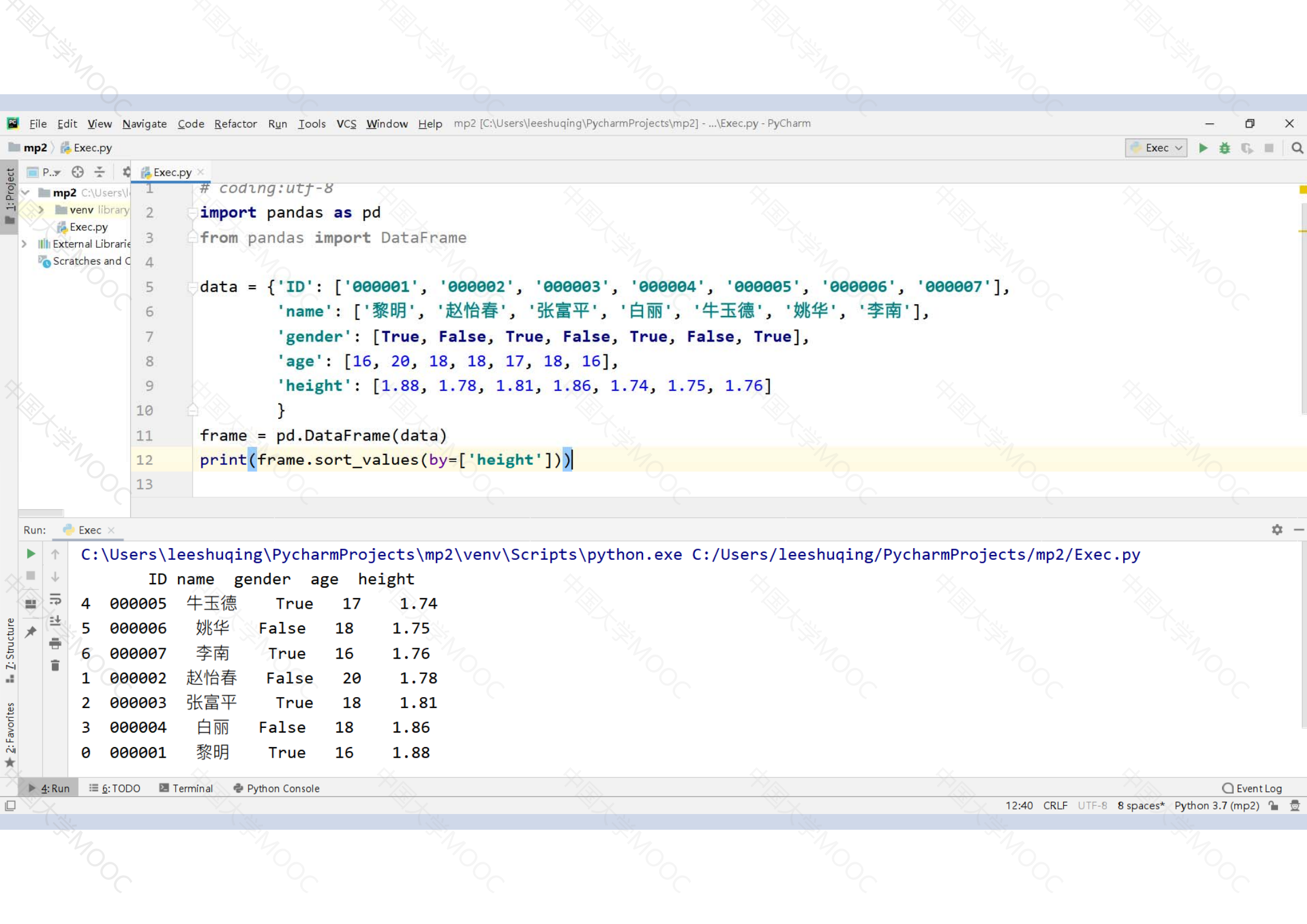
	ID	name	gender	age	height
0	000001	黎明	True	16	1.88
1	000002	赵怡春	False	20	1.78
2	000003	张富平	True	18	1.81
3	000004	白丽	False	18	1.86
4	000005	牛玉德	True	17	1.74
5	000006	姚华	False	18	1.75
6	000007	李南	True	16	1.76

Event Log

PEP 8: no newline at end of file

12:13 CRLF UTF-8 8 spaces\* Python 3.7 (mp2)

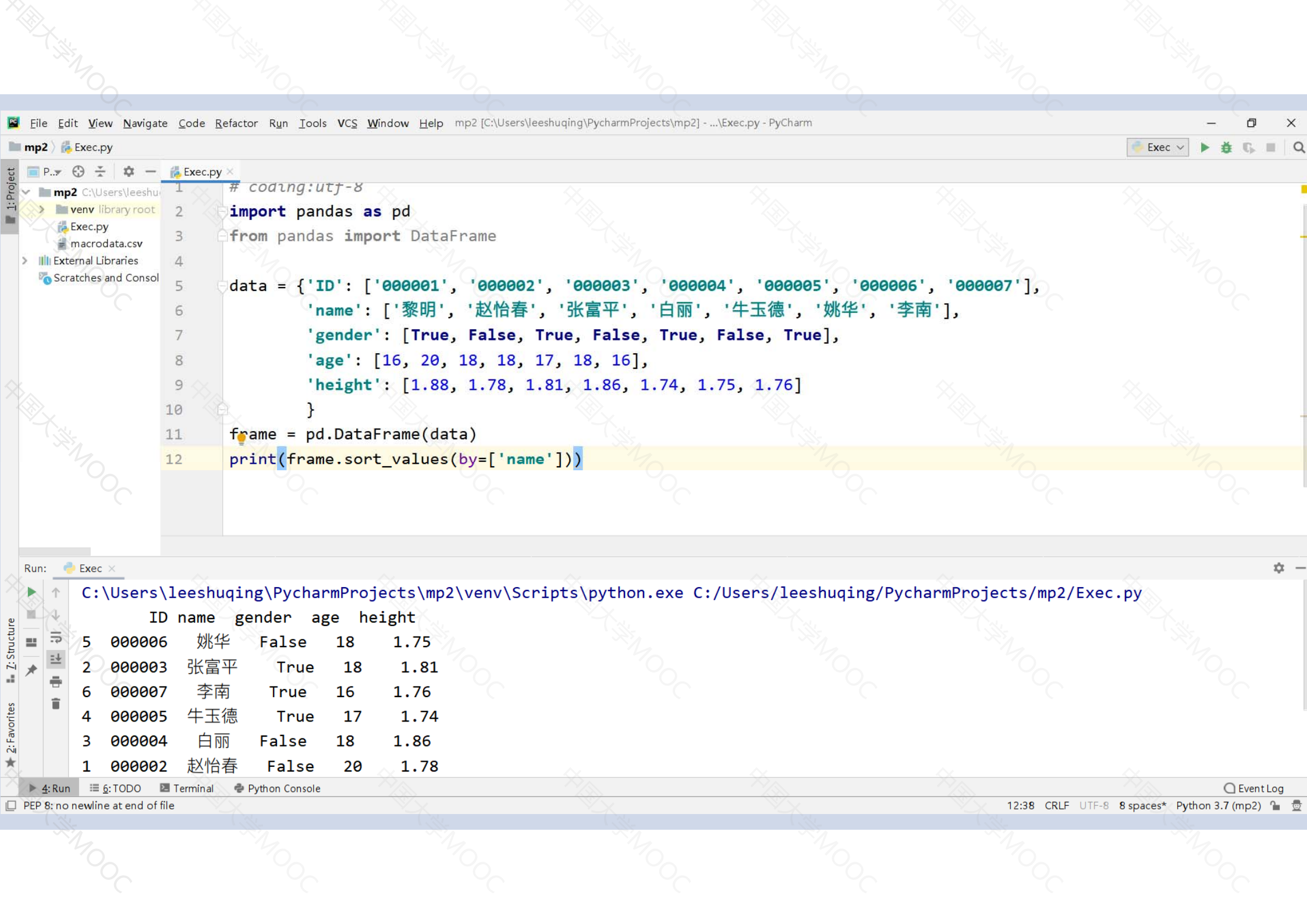




```
1 # coding:utf-8
2 import pandas as pd
3 from pandas import DataFrame
4
5 data = {'ID': ['000001', '000002', '000003', '000004', '000005', '000006', '000007'],
6         'name': ['黎明', '赵怡春', '张富平', '白丽', '牛玉德', '姚华', '李南'],
7         'gender': [True, False, True, False, True, False, True],
8         'age': [16, 20, 18, 18, 17, 18, 16],
9         'height': [1.88, 1.78, 1.81, 1.86, 1.74, 1.75, 1.76]}
10
11 frame = pd.DataFrame(data)
12 print(frame.sort_values(by=['height']))
13
```

C:\Users\leeshuqing\PycharmProjects\mp2\venv\Scripts\python.exe C:/Users/leeshuqing/PycharmProjects/mp2/Exec.py

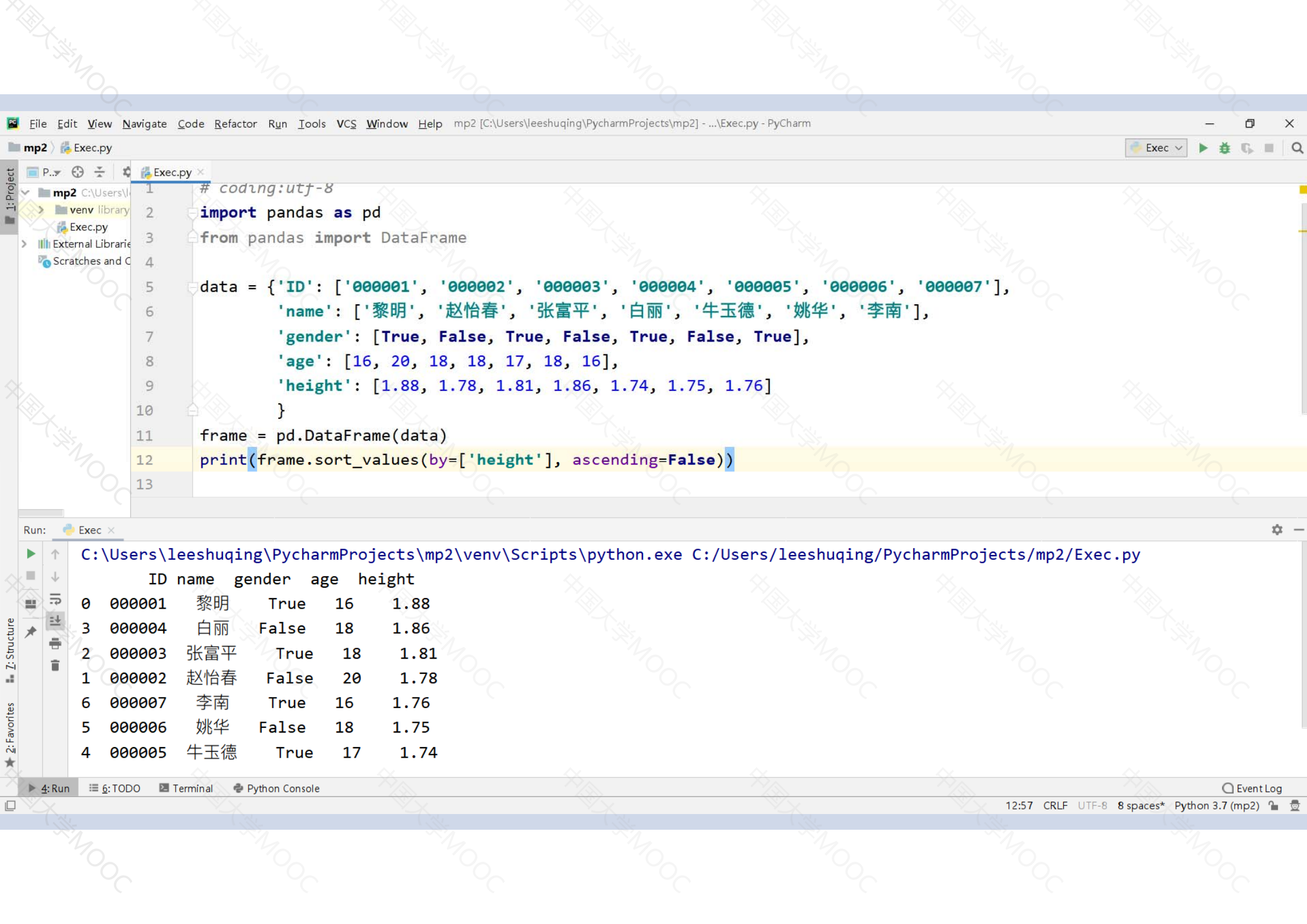
	ID	name	gender	age	height
4	000005	牛玉德	True	17	1.74
5	000006	姚华	False	18	1.75
6	000007	李南	True	16	1.76
1	000002	赵怡春	False	20	1.78
2	000003	张富平	True	18	1.81
3	000004	白丽	False	18	1.86
0	000001	黎明	True	16	1.88





```
print('XX'.encode())
```

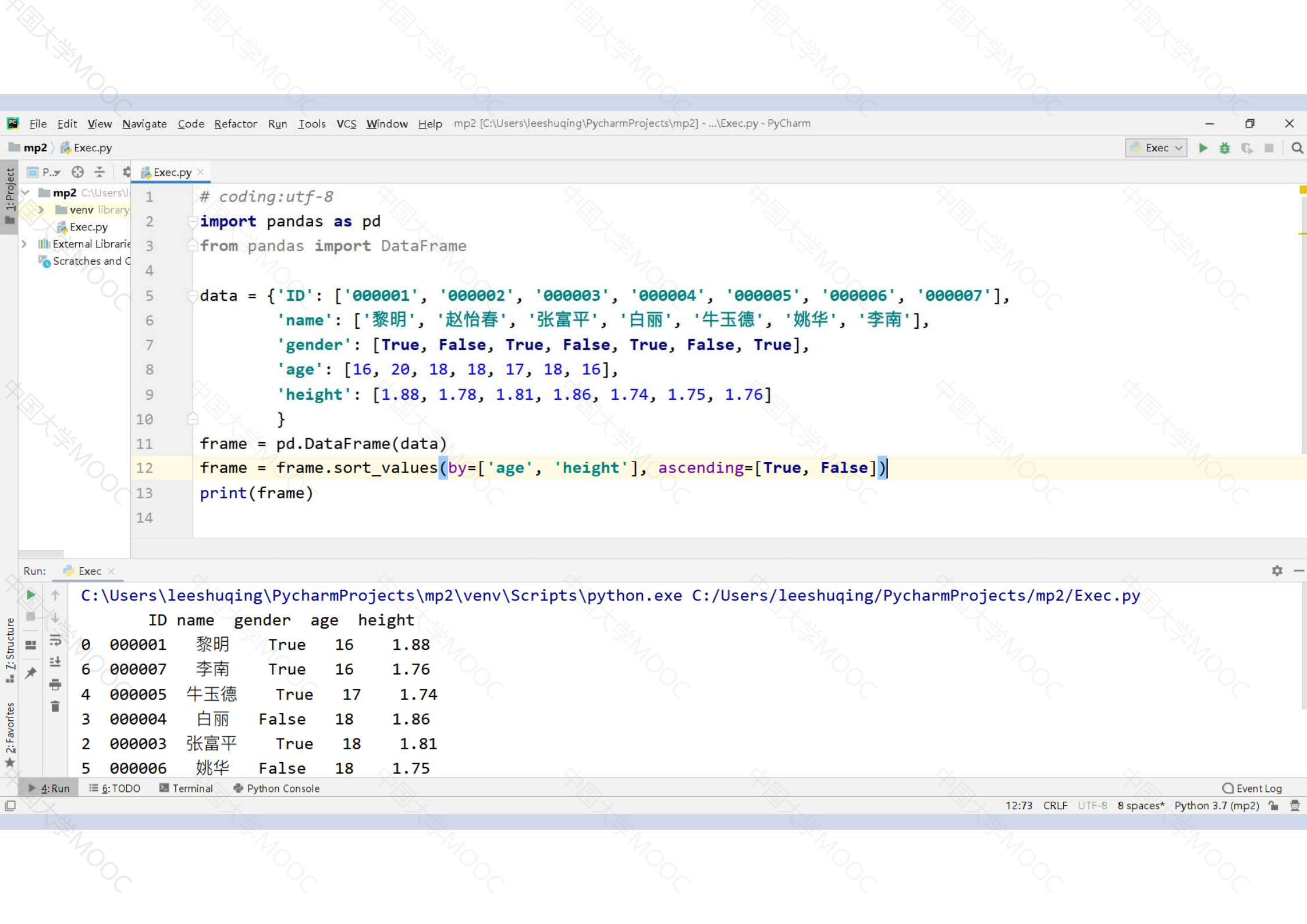
- 姚华      \xe5\xa7\x9a\xe5\x8d\x8e
- 张富平    \xe5\xbc\xa0\xe5\xaf\x8c\xe5\xb9\xb3
- 李南      \xe6\x9d\x8e\xe5\x8d\x97
- 牛玉德    \xe7\x89\x9b\xe7\x8e\x89\xe5\xbe\xb7
- 白丽      \xe7\x99\xbd\xe4\xb8\xbd
- 赵怡春    \xe8\xb5\xb5\xe6\x80\xa1\xe6\x98\xa5
- 黎明      \xe9\xbb\x8e\xe6\x98\x8e



```
1 # coding:utf-8
2 import pandas as pd
3 from pandas import DataFrame
4
5 data = {'ID': ['000001', '000002', '000003', '000004', '000005', '000006', '000007'],
6         'name': ['黎明', '赵怡春', '张富平', '白丽', '牛玉德', '姚华', '李南'],
7         'gender': [True, False, True, False, True, False, True],
8         'age': [16, 20, 18, 18, 17, 18, 16],
9         'height': [1.88, 1.78, 1.81, 1.86, 1.74, 1.75, 1.76]}
10
11 frame = pd.DataFrame(data)
12 print(frame.sort_values(by=['height'], ascending=False))
13
```

```
C:\Users\leeshuqing\PycharmProjects\mp2\venv\Scripts\python.exe C:/Users/leeshuqing/PycharmProjects/mp2/Exec.py
```

	ID	name	gender	age	height
0	000001	黎明	True	16	1.88
3	000004	白丽	False	18	1.86
2	000003	张富平	True	18	1.81
1	000002	赵怡春	False	20	1.78
6	000007	李南	True	16	1.76
5	000006	姚华	False	18	1.75
4	000005	牛玉德	True	17	1.74

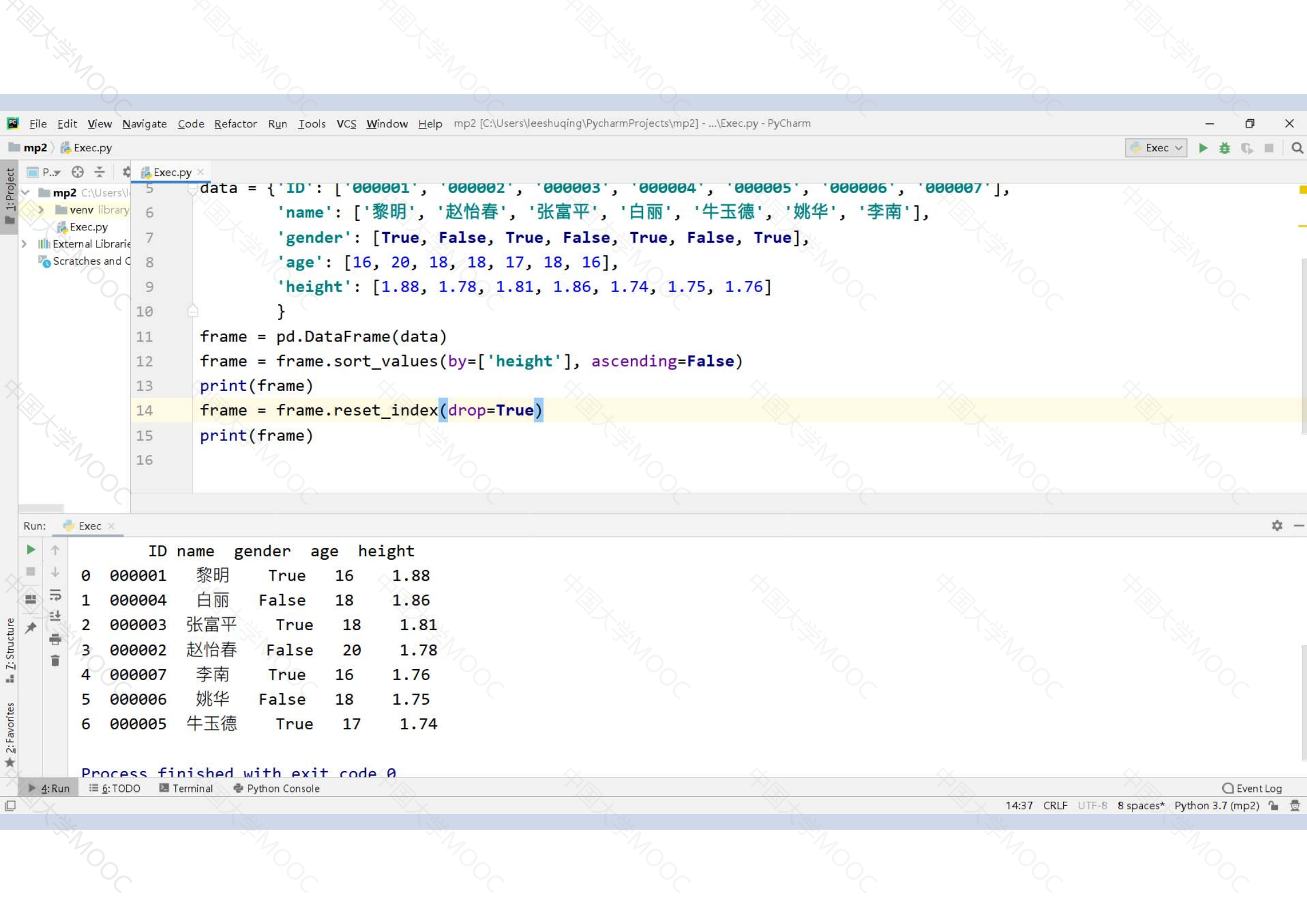


```
1 # coding:utf-8
2 import pandas as pd
3 from pandas import DataFrame
4
5 data = {'ID': ['000001', '000002', '000003', '000004', '000005', '000006', '000007'],
6         'name': ['黎明', '赵怡春', '张富平', '白丽', '牛玉德', '姚华', '李南'],
7         'gender': [True, False, True, False, True, False, True],
8         'age': [16, 20, 18, 18, 17, 18, 16],
9         'height': [1.88, 1.78, 1.81, 1.86, 1.74, 1.75, 1.76]}
10
11 frame = pd.DataFrame(data)
12 frame = frame.sort_values(by=['age', 'height'], ascending=[True, False])
13 print(frame)
14
```

C:\Users\leeshuqing\PycharmProjects\mp2\venv\Scripts\python.exe C:/Users/leeshuqing/PycharmProjects/mp2/Exec.py

	ID	name	gender	age	height
0	000001	黎明	True	16	1.88
6	000007	李南	True	16	1.76
4	000005	牛玉德	True	17	1.74
3	000004	白丽	False	18	1.86
2	000003	张富平	True	18	1.81
5	000006	姚华	False	18	1.75

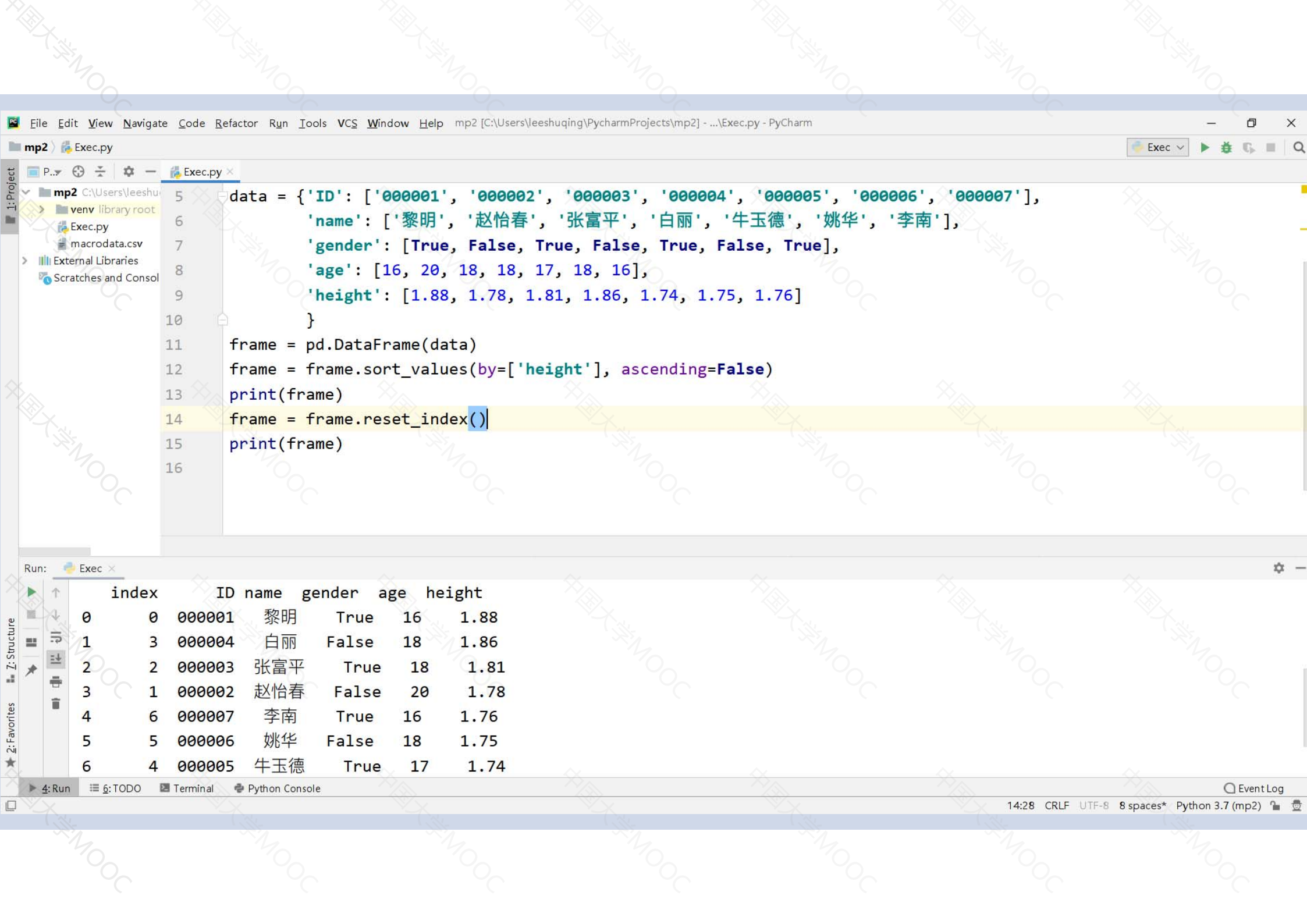




```
5 data = {'ID': ['000001', '000002', '000003', '000004', '000005', '000006', '000007'],
6         'name': ['黎明', '赵怡春', '张富平', '白丽', '牛玉德', '姚华', '李南'],
7         'gender': [True, False, True, False, True, False, True],
8         'age': [16, 20, 18, 18, 17, 18, 16],
9         'height': [1.88, 1.78, 1.81, 1.86, 1.74, 1.75, 1.76]}
10
11 frame = pd.DataFrame(data)
12 frame = frame.sort_values(by=['height'], ascending=False)
13 print(frame)
14 frame = frame.reset_index(drop=True)
15 print(frame)
16
```

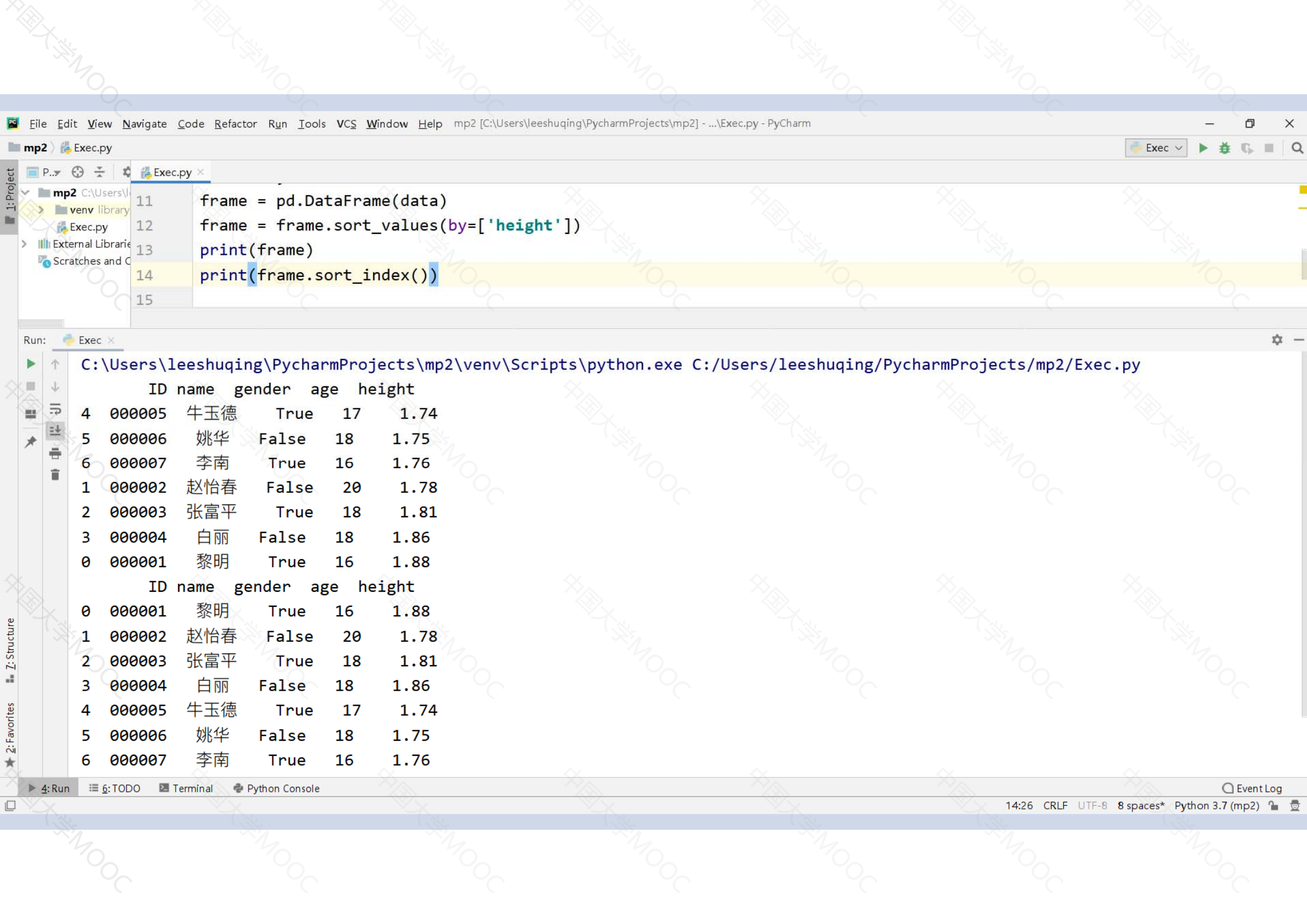
	ID	name	gender	age	height
0	000001	黎明	True	16	1.88
1	000004	白丽	False	18	1.86
2	000003	张富平	True	18	1.81
3	000002	赵怡春	False	20	1.78
4	000007	李南	True	16	1.76
5	000006	姚华	False	18	1.75
6	000005	牛玉德	True	17	1.74

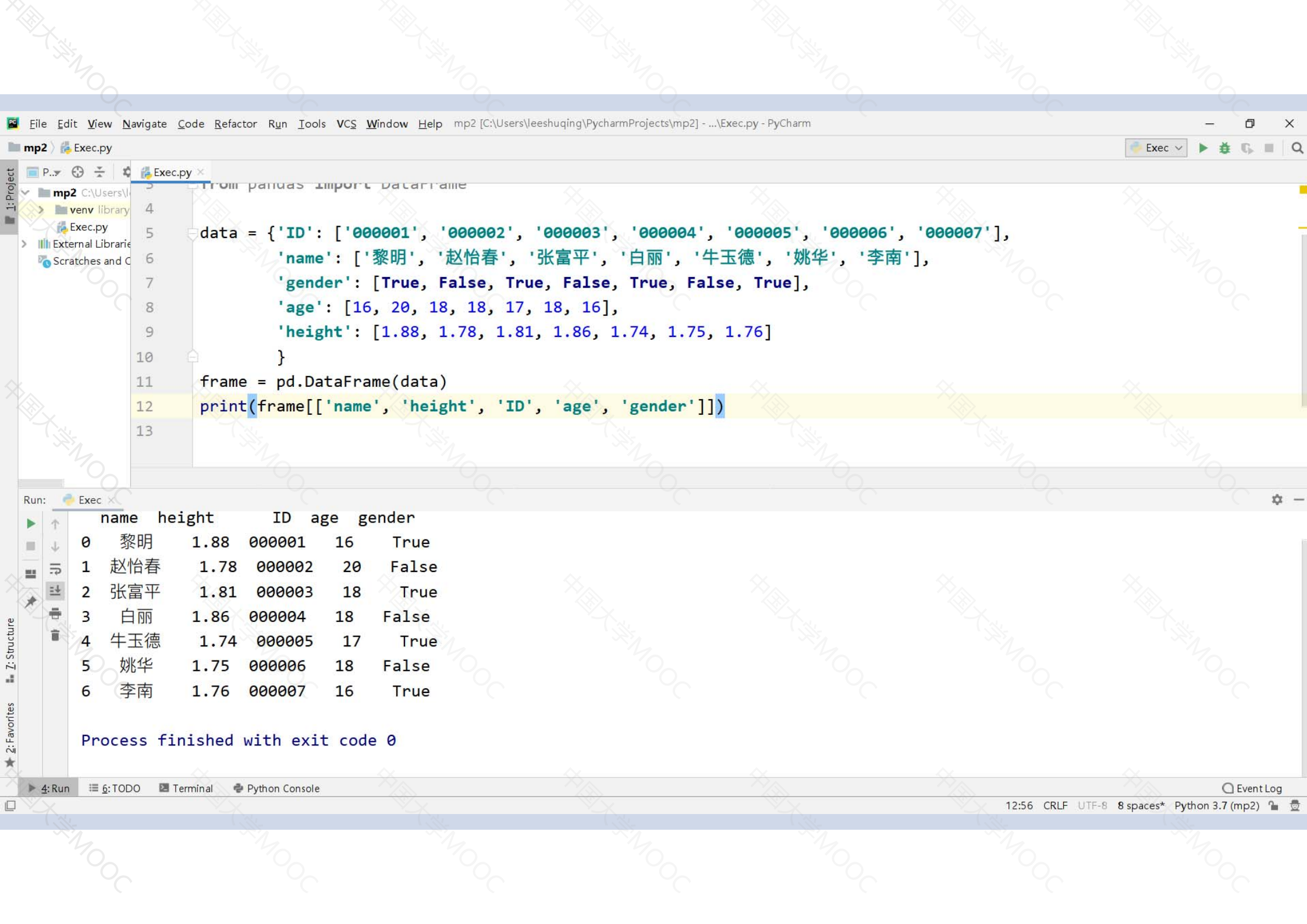
Process finished with exit code 0



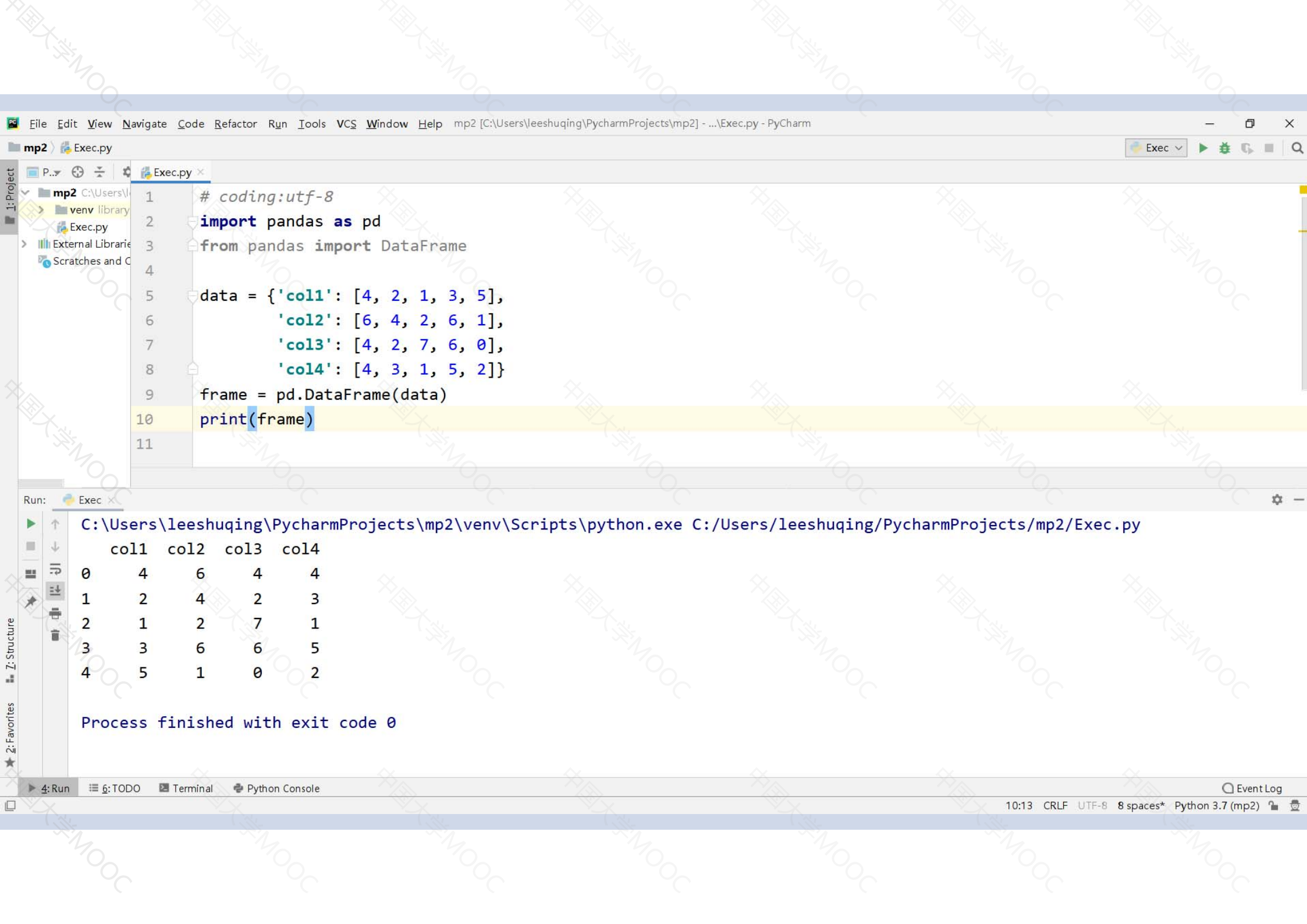
```
5 data = {'ID': ['000001', '000002', '000003', '000004', '000005', '000006', '000007'],
6         'name': ['黎明', '赵怡春', '张富平', '白丽', '牛玉德', '姚华', '李南'],
7         'gender': [True, False, True, False, True, False, True],
8         'age': [16, 20, 18, 18, 17, 18, 16],
9         'height': [1.88, 1.78, 1.81, 1.86, 1.74, 1.75, 1.76]}
10
11 frame = pd.DataFrame(data)
12 frame = frame.sort_values(by=['height'], ascending=False)
13 print(frame)
14 frame = frame.reset_index()
15 print(frame)
16
```

	index	ID	name	gender	age	height
0	0	000001	黎明	True	16	1.88
1	3	000004	白丽	False	18	1.86
2	2	000003	张富平	True	18	1.81
3	1	000002	赵怡春	False	20	1.78
4	6	000007	李南	True	16	1.76
5	5	000006	姚华	False	18	1.75
6	4	000005	牛玉德	True	17	1.74









```
1 # coding:utf-8
2 import pandas as pd
3 from pandas import DataFrame
4
5 data = {'col1': [4, 2, 1, 3, 5],
6         'col2': [6, 4, 2, 6, 1],
7         'col3': [4, 2, 7, 6, 0],
8         'col4': [4, 3, 1, 5, 2]}
9 frame = pd.DataFrame(data)
10 print(frame)
11
```

Run: Exec x

C:\Users\leeshuqing\PycharmProjects\mp2\venv\Scripts\python.exe C:/Users/leeshuqing/PycharmProjects/mp2/Exec.py

	col1	col2	col3	col4
0	4	6	4	4
1	2	4	2	3
2	1	2	7	1
3	3	6	6	5
4	5	1	0	2

Process finished with exit code 0

4: Run 5: TODO Terminal Python Console

Event Log

10:13 CRLF UTF-8 8 spaces\* Python 3.7 (mp2)





**一次不学多，下次再学**