

```
2dlist = [list1, list2, list3]
```

A list made up of lists

Video: <https://www.youtube.com/watch?v=Xy6qeQWQwFw>

	Sex	Race	Height	Income	Marital Status	Years of Educ.
R1001	M	1	70	50	1	12
R1002	M	2	72	100	2	20
R1003	F	1	55	250	1	16
R1004	M	2	65	20	2	16
R1005	F	1	60	10	3	12
R1006	M	1	68	30	1	9
R1007	F	5	66	25	2	21
R1008	F	4	61	43	1	18
R1009	M	1	69	67	1	12

```
1 fruits = ["apple", "orange", "banana", "coconut"]
2 vegetables = ["celery", "carrots", "potatoes"]
3 meats = ["chicken", "fish", "turkey"]
4
5
6 groceries = [fruits, vegetables, meats]
7
8 fruits[0]
9 print(fruits)
```

main.py

C:\Users\HP\PyCh

1

2

3

4

5

6

7

8

9

```
fruits = ["apple", "orange", "banana", "coconut"]
```

```
vegetables = ["celery", "carrots", "potatoes"]
```

```
meats = ["chicken", "fish", "turkey"]
```

```
groceries = [fruits, vegetables, meats]
```

```
fruits[0] = "pineapple"
```

```
print(fruits)
```

```
1
2 fruits = ["apple", "orange", "banana", "coconut"]
3 vegetables = ["celery", "carrots", "potatoes"]
4 meats = ["chicken", "fish", "turkey"]
5
6 groceries = [fruits, vegetables, meats]
7
8 print(groceries[0])
```

This returns an entire row

```
fruits = _____["apple", "orange", "banana", "coconut"]  
vegetables = ["celery", "carrots", "potatoes"]  
meats = _____["chicken", "fish", "turkey"]  
  
groceries = [fruits, vegetables, meats]  
  
print(groceries[0][1])
```

```
1
2 fruits = ["apple", "orange", "banana", "coconut"]
3 vegetables = ["celery", "carrots", "potatoes"]
4 meats = ["chicken", "fish", "turkey"]
5
6 groceries = [fruits, vegetables, meats]
7
8 print(groceries[1][1])
```

1

2

3

4

5

6

7

8

```
fruits = ["apple", "orange", "banana", "coconut"]
```

```
vegetables = ["celery", "carrots", "potatoes"]
```

```
meats = ["chicken", "fish", "turkey"]
```

```
groceries = [fruits, vegetables, meats]
```

```
print(groceries[2][3])
```



```
1
2 fruits = ["apple", "orange", "banana", "coconut"]
3 vegetables = ["celery", "carrots", "potatoes"]
4 meats = ["chicken", "fish", "turkey"]
5
6 groceries = [fruits, vegetables, meats]
7
8 print(groceries[2][1])
```

```
1  
2 fruits = ["apple", "orange", "banana", "coconut"]  
3 vegetables = ["celery", "carrots", "potatoes"]  
4 meats = ["chicken", "fish", "turkey"]  
5  
6 groceries = [fruits, vegetables, meats]  
7  
8 print(groceries[0][0])
```

```
1
2 groceries = ["apple", "orange", "banana", "coconut"],
3             ["celery", "carrots", "potatoes"],
4             ["chicken", "fish", "turkey"]]
5
6 print(groceries[0][0])
```

```
1
2 groceries = ["apple", "orange", "banana", "coconut"],
3             ["celery", "carrots", "potatoes"],
4             ["chicken", "fish", "turkey"]]
5
6 for collection in groceries:
7     print(collection)
```

This iterates over the rows

```
Run: main x
['apple', 'orange', 'banana', 'coconut']
['celery', 'carrots', 'potatoes']
['chicken', 'fish', 'turkey']
```

```
1
2 groceries = ["apple", "orange", "banana", "coconut"],
3             ["celery", "carrots", "potatoes"],
4             ["chicken", "fish", "turkey"]
5
6 for collection in groceries:
7     for food in collection:
8         print(food)
```

This iterates over the
elements in each row

for collection in groceries : for food in collection

C:\Users\HP\PycharmProjects\practice\venv\bin\python.exe C:/Users/HP/PycharmProjects/practice/main.py

apple
orange
banana
coconut

The image shows a PyCharm IDE interface. The top toolbar includes icons for file operations and a 'main' dropdown menu. The left sidebar shows a project tree with a folder named 'practice' containing a 'venv' directory and a 'main.py' file. The main editor window displays the following Python code:

```
1
2 groceries = ["apple", "orange", "banana", "coconut"],
3             ["celery", "carrots", "potatoes"],
4             ["chicken", "fish", "turkey"]]
5
6 for collection in groceries:
7     for food in collection:
8         print(food, end=" ")
9     print()
```

Below the code editor, a status bar indicates the current loop iteration: 'for collection in groceries'. At the bottom, a 'Run' toolbar shows a green play button and a 'main' dropdown. The output console displays the result of the script execution:

```
C:\Users\HP\PycharmProjects\practice\venv\bin\python.exe C:/Users/HP/PycharmProjects/practice/main.py
apple orange banana coconut celery carrots potatoes chicken fish turkey
```

```
1 num_pad = ((1, 2, 3),
2            (4, 5, 6),
3            (7, 8, 9),
4            ("*", 0, "#"))
5
6
7 for row in num_pad:
8     print(row)
```

C:\Users\HP\PycharmProjects\practice\venv\bin\python.exe C:/Users/HP/Py

```
(1, 2, 3)
(4, 5, 6)
(7, 8, 9)
('*', 0, '#')
```

practice C:\Users\HP\PyCharm\practice

- > venv
- main.py
- External Libraries
- Scratches and Consoles

```
1 num_pad = ((1, 2, 3),
2             (4, 5, 6),
3             (7, 8, 9),
4             ("*", 0, "#"))
5
6
7 for row in num_pad:
8     for num in row:
9         print(num, end=" ")
```

for row in num_pad : for num in row

run: main

↑
↓
*
0
#


```
1 num_pad = ((1, 2, 3),
2             (4, 5, 6),
3             (7, 8, 9),
4             ("*", 0, "#"))
5
6
7 for row in num_pad:
8     for num in row:
9         print(num, end=" ")
10    print()
```

for row in num_pad

Run: main x

```
1 2 3
4 5 6
7 8 9
* 0 #
```


