

Python Programming

Reading and Printing

Mostafa S. Ibrahim

Teaching, Training and Coaching since more than a decade!

Artificial Intelligence & Computer Vision Researcher

PhD from Simon Fraser University - Canada

Bachelor / Msc from Cairo University - Egypt

Ex-(Software Engineer / ICPC World Finalist)



Printing

```
1
2 def printl(lst_of_lsts):
3     for lst in lst_of_lsts:
4         print(lst)
5
6
7 grades = [ [1, 2, 3, 4],
8             [5, 6],
9             [7, 8, 9, 10, 11],
10            ]
11
12 printl(grades)
13 """
14 [1, 2, 3, 4]
15 [5, 6]
16 [7, 8, 9, 10, 11]
17 """
```

```
2
3 def printl(lst_of_lsts):
4     for lst in lst_of_lsts:
5         print(*lst) # unpack: print without []
6
7
8 grades = [ [1, 2, 3, 4],
9             [5, 6],
10            [7, 8, 9, 10, 11],
11            ]
12
13 printl(grades)
14 """
15 1 2 3 4
16 5 6
17 7 8 9 10 11
18 """
```

Printing

```
1
2 def print2(lst_of_lsts):
3     for i, lst in enumerate(lst_of_lsts):
4         for j, item in enumerate(lst):
5             print(item, end=' ')
6         print()
7
8 def print3(lst_of_lsts): # for educational purposes
9     for i in range(len(lst_of_lsts)):
10        for j in range(len(lst_of_lsts[i])):
11            print(lst_of_lsts[i][j], end=' ')
12        print()
13
14
15 grades = [ [1, 2, 3, 4],
16            [5, 6],
17            [7, 8, 9, 10, 11],
18            ]
19
20 print3(grades)
21 """
22 1 2 3 4
23 5 6
24 7 8 9 10 11
25 """
```

Reading

- Read integer (rows) on a line
- Then read N lines, each has a group of integers

```
3 def print_lst_of_lsts(lst_of_lsts):
4     for lst in lst_of_lsts:
5         print(lst)
6
7 def read_lst_of_lsts_ints():
8     rows = int(input())
9     lst_of_lsts = [0] * rows
10
11     for row in range(rows):
12         lst_of_lsts[row] = list(map(int, input().split()))
13     return lst_of_lsts
14
15 lsts = read_lst_of_lsts_ints()
16 print_lst_of_lsts(lsts)
17
```

```
3
1 2 3 4
5 6
7 8 9 10 11
[1, 2, 3, 4]
[5, 6]
[7, 8, 9, 10, 11]
```

“Acquire knowledge and impart it to the people.”

“Seek knowledge from the Cradle to the Grave.”