Day01_intro

September 2, 2025

1 Day 1 Python ( )

Jupyter Python → → → → →

Notebook 1. 2. Python 3. (list) & (dict) 4. “ ” 5. 5 6. 7.

/

1.1 1.

- **Anaconda** Python
- **Jupyter Notebook** = + +
- Ctrl+S Shift+Enter
- (A= , B=)

1.1.1 (Kernel)?

- / /
- ,

1.2 2. Python

print(‘Hello’)	
x = 10	=
int 10 / float 3.14 / str ‘hi’	/ /
list [1,2,3] / dict {‘a’:1}	
+ - * / // %	/ /
> < >= <= == !=	True/False
and / or / not	
if : … else: …	
for item in list: …	
import math	

“ ”

1.2.1

- f” :{name} :{score}”
- append / pop / len
- keys() / values() / get()
- len / sum / max / min / round
- \> \>

[22]:

```
#
message = 'Hello Data Analysis'
year = 2025
print(message, year)

#
a = 12
b = 5
print('  a + b =', a + b)
print('  a // b =', a // b)
print('  a % b =', a % b)
```

```
Hello Data Analysis 2025
  a + b = 17
  a // b = 2
  a % b = 2
```

[23]:

```
#
name = '  '
score_chi, score_math, score_eng = 78, 85, 90
# f-string
print(f'  :{name}  :{score_chi}  :{score_math}  :{score_eng}  :
 ↪{(score_chi+score_math+score_eng)/3:.1f}')

#
nums = [3, 1, 5]
nums.append(10)   #
first = nums.pop(0) #    0
print('   :', nums, '   :', first)
print('   len(nums)=', len(nums))
print('  /  :', max(nums), min(nums))

#   get
info = {'name': '  ', 'age': 18}
print(info.get('name'))       #
print(info.get('score', '   ')) #

# round
pi = 3.14159
print('   :', round(pi, 2))
```

```
:    :78   :85   :90   :84.3
  : [1, 5, 10]     : 3
  len(nums)= 3
 /  : 10 1


  : 3.14
```

[24]:

```python
#
score = 85
if score >= 60:
    print('  ')
else:
    print('   ')

# for      1~5
total = 0
for i in [1, 2, 3, 4, 5]:
    total = total + i   #     total += i
print('1~5    =', total)
```

```
1~5    = 15
```

1.3 3. (list) (dict)

- list students[0]
- dict " " scores[' ']

list = dict =

[25]:

```python
#      5
students = ['  ', '  ', '  ', '  ', '  ']
print('   :', students)
print('    :', students[0])

#
score_zhang = {
    'name': '  ',
    '  ': 78,
    '  ': 85,
    '  ': 90
}
print('    :', score_zhang['  '])
```

```
 : ['  ', '  ', '  ', '  ', '  ']
  :
  : 85
```

1.4 4. list + dict “ ”

= =

name / / /

pandas DataFrame

[26]:

```
#   ' '
grade_table = [
    {'name': ' ', ' ': 78, ' ': 85, ' ': 90},
    {'name': ' ', ' ': 82, ' ': 88, ' ': 76},
    {'name': ' ', ' ': 90, ' ': 92, ' ': 89},
    {'name': ' ', ' ': 67, ' ': 74, ' ': 70},
    {'name': ' ', ' ': 88, ' ': 79, ' ': 84},
]

#
print('   :')
for row in grade_table[:2]:
    print(row)

#
third_english = grade_table[2][' ']
print('     :', third_english)
```

```
   :
{'name': ' ', ' ': 78, ' ': 85, ' ': 90}
{'name': ' ', ' ': 82, ' ': 88, ' ': 76}
     : 89
```

1.5 5. Mini Case 5

1. row 2. / / 3 3 3. 4.

“ ” pandas

[27]:

```
#        +
student_avgs = []
for row in grade_table:
    per_avg = (row[' '] + row[' '] + row[' ']) / 3
    student_avgs.append(per_avg)
    print(per_avg)

class_avg = sum(student_avgs) / len(student_avgs)
print('-' * 30)
print('   :', round(class_avg, 2))
```

```
84.33333333333333
```

```
82.0
90.33333333333333
70.33333333333333
83.66666666666667
------------------------------
   : 82.13
```

[28]:

```python
#
def average_three(a, b, c):
    return (a + b + c) / 3

try:
    print('   :', average_three(78, 85, 90))
    #
    print('  :', average_three(78, '85', 90))
except TypeError as e:
    print('    (TypeError):', e)
```

```
   : 84.33333333333333
    (TypeError): unsupported operand type(s) for +: 'int' and 'str'
```

1.5.1

-
- def ( ): return
- (Exception) try/except
- Notebook +

1.5.2 ( )

1.
2.
3. >= 80

(Day 3/4)

1.6 6.

1. 2. Python 3. list + dict “ ” 4. mini case “ → → ”

+

1.7 6.

1. **3** / 40
2. = = { ‘ ’: 2.5, ‘ ’: 1.0, ... }
3.
4. 30~50

(Notebook homework_day1.ipynb)

Notebook “ ” “ ”