

CSCA08 FALL 2015

WEEK 5 – PEP-8 & IMPORTING

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October 6, 2015



QUESTIONS FROM PAST TUTORIALS

```
Python Type "help", "copyright", "credits"  
>>> [evaluate untitled-1.py]  
>>> print(None)  
None
```

← Q: What's its data type?
A: It doesn't have a data type.

```
>>> print('CSCA08')  
CSCA08  
>>> print(2015)  
2015  
>>> print(True)  
True
```

QUESTIONS FROM PAST TUTORIALS

1. Header
2. Type Contract
3. Requirements
4. Examples
5. Description
6. Internal Comments
7. Code
8. Test

QUESTIONS FROM PAST TUTORIALS

1. H → 1 `def is_it_the_weekend(day_of_week):`
2. T → 2 `'''(str) -> bool`
3. R → 3 `Return True iff day_of_week is a`
4. E → 4 `weekend day (Saturday or Sunday)`
5. D → 5 `REQ: day_of_week in {"Monday",`
6. I → 6 `"Tuesday", "Wednesday", "Thursday",`
7. C → 7 `"Friday", "Saturday", "Sunday"}`
8. T → 8 `>>> is_it_the_weekend("Saturday")`
9 `True`
10 `>>> is_it_the_weekend("Friday")`
11 `False`
12 `'''`
13 `# accept Saturday or Sunday`
14 `result = ((day_of_week == "Saturday")`
15 `or (day_of_week == "Sunday"))`
16 `return result`

LEARNING OBJECTIVES

- At the end of the tutorial, you will be able to ...
 1. make your code more easy to read(PEP-8)
 2. Import modules and other .py files

PEP-8

```
1 def is_accepted(program_code,gpa,name):
2     csc_accepted =(program_code=='CSC')
3     mat_sta_accepted= (((program_code=='MAT')or(program_code == 'STA'))and(gpa>=3))
4     non_cms_accepted = (gpa> 3.5)
5     name_accepted =(name=='Brian')
6     result = (csc_accepted or mat_sta_accepted or non_cms_accepted or name_accepted)
7     return result
8
```

Non-PEP8

```
1 def is_accepted(program_code, gpa, name):
2     csc_accepted = (program_code == 'CSC')
3     mat_sta_accepted = (((program_code == 'MAT') or
4                             (program_code == 'STA')) and (gpa >= 3))
5     non_cms_accepted = (gpa > 3.5)
6     name_accepted = (name == 'Brian')
7     result = (csc_accepted or mat_sta_accepted or
8                 non_cms_accepted or name_accepted)
9     return result
10
```

PEP8

- All you have to know is ... <http://pep8online.com/>

PEP8 online

Check your code for PEP8 requirements

All right

Save ▾ Share

Your code

```
1 def is_accepted(program_code, gpa, name):
2     '''(str, float, str) -> bool
3     Return True if a student is allowed to take a course, based on
4     program_code, gpa and name. False otherwise.
5     REQ: name must be non-empty
6     REQ: gpa >= 0
7     >>> is_accepted('MAT', 3.8, 'Nick')
8     True
9     >>> is_accepted('STA', 2.9, 'Alice')
10    False
11    >>> is_accepted('CSC', 1.8, 'Bob')
12    True
13    >>> is_accepted('PSY', 3.9, 'Brian')
14    True
15    >>> is_accepted('MAT', 1.8, 'Charlie')
```

Check again

IMPORTING

- Two types of importing

1. `import module(s)`

- `math`
- `random`
- `time`
- `doctest`
- `unittest`
- ...

2. `import .py file(s)`

- `ex0`
- `ex1`
- `ex2`
- ...

TERM TEST 1 SAMPLE SOLUTION

• Question 1

1. ADD: 1 + 2
2. STEP 1: 3
3. MULT: 2 * 1
4. STEP 2: 2
5. Mystery 1: 3 , 5
6. STEP 3: 5
7. ADD: 1 + 2
8. MULT: 2 * 1
9. Mystery 1: 5 , 7
10. Mystery 2: 7 , 2
11. STEP 4: 9
12. Mystery 1: 3 , 5
13. ADD: 5 + 1
14. MULT: 1 * 5
15. Mystery 1: 11 , 16
16. Mystery 2: 16 , 1
17. STEP 5: 17

• Question 2

1. STEP 1: A B C
2. func1: A B
3. STEP 2: A B C
4. func1: A B
5. func2: A B C
6. STEP 3: A B A B
7. func1: A B
8. func2: A B C
9. func1: B C
10. func2: B C C
11. func3: A B B C C
12. func1: A B B C
13. func1: B C A B
14. func1: C C
15. func2: C C C
16. STEP 4: A B C C

• Question 3

```

1 def is_accepted(program_code, gpa, name):
2     '''(str, float, str) -> bool
3     Return True if a student is allowed to take a course, based on
4     program_code, gpa and name. False otherwise.
5     REQ: name must be non-empty
6     REQ: gpa >= 0
7     >>> is_accepted('MAT', 3.8, 'Nick')
8     True
9     >>> is_accepted('STA', 2.9, 'Alice')
10    False
11    >>> is_accepted('CSC', 1.8, 'Bob')
12    True
13    >>> is_accepted('PSY', 3.9, 'Brian')
14    True
15    >>> is_accepted('MAT', 1.8, 'Charlie')
16    False
17    '''
18    # accept anyone whose program code is CSC
19    csc_accepted = (program_code == 'CSC')
20    # accept anyone whose program code is MAT or STA must have
21    # a GPA of 3.0 or higher
22    mat_sta_accepted = ((program_code == 'MAT') or
23                        (program_code == 'STA')) and (gpa >= 3)
24    # accept anyone with a GPA above 3.5
25    non_cms_accepted = (gpa > 3.5)
26    # accept anyone named 'Brian'
27    name_accepted = (name == 'Brian')
28    # check if a student meets at least one of above requirements
29    result = (csc_accepted or mat_sta_accepted or
30            non_cms_accepted or name_accepted)
31    return result

```