CSCA08 Fall 2016

Week 4 – DESIGN RECIPE

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DESIGN RECIPE

- 8 steps in the design recipe

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

Header

- good variable names, sensible function name

Type contract & REQ

- Make it crystal clear
- Users have to follow all the restrictions
- Some functions do not have REQ

Examples

- Make sure a user really understand what our function does
- Must cover **boundary cases**
- DO NOT COPY FROM THE HANDOUT

Description

- Focus on making it clear, but also conveying everything a user would need to know to use our function

Internal commenting

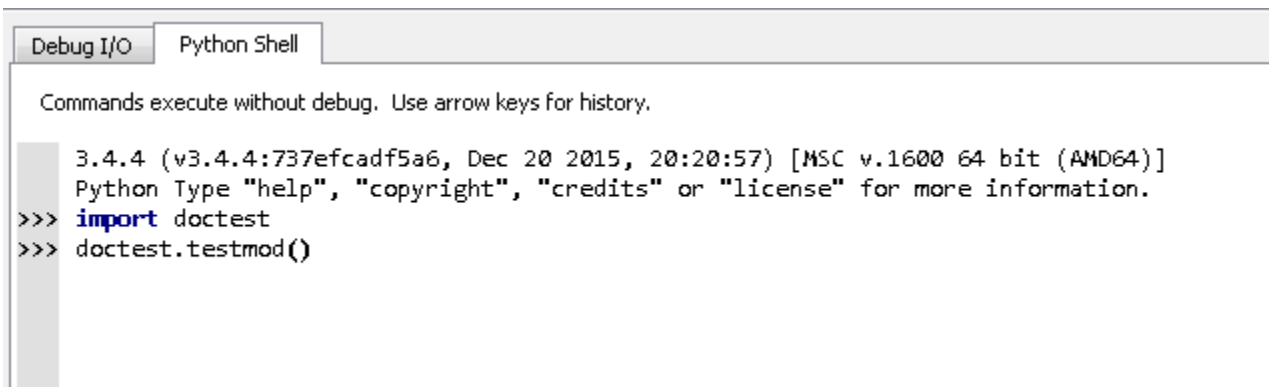
- Design your algorithm

Code

- Fill in the code for each line of our comments

Test(Doctest)

- Type the following code in Python shell



- Always re-run doctest before submission

Summary

1. H
2. T
3. R
4. E
5. D
6. I
7. C
8. T

```
1  def is_it_the_weekend(day_of_week):
2      '''(str) -> bool
3      Return True iff day_of_week is a
4      weekend day (Saturday or Sunday)
5      REQ: day_of_week in {"Monday",
6      "Tuesday", "Wednesday", "Thursday",
7      "Friday", "Saturday", "Sunday"}
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
```

Pep-8

- http://pep8online.com/