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Python for Data Analysis 101

Homework

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Week 1: Lecture 4

HW Exercise:

- Write a function that takes a single argument, prints the value of the argument, and returns the argument as a string.

- Write a function that takes a variable number of arguments and prints them all.

- Write a function that prints the names and values of keyword arguments passed to it.

- Write a python script (file) that prints your name as all lower case, upper case and proper capitalization. (Bonus) if you can pass in your name: input()? argparse? etc

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Solutions

HW Exercise:

- Write a function that takes a single argument, prints the value of the argument, and returns the argument as a string.

Solution:

```python
def t(x):
...     print( 'x: %s' % x)
...     return '%s' % x
...
t(3)
x: 3
'3'
```

OR

```python
def t(x):
...     print( 'x: ', x)
...     print( 'x: '+ str(x))
...     return str(x)
...
t(3)
x: 3
x: 3
'3'
```

HW Exersise:

- Write a function that takes a variable number of arguments and prints them all.

Solution:

```python
def t(*args):
...     for arg in args:
...         print( 'arg: %s' % arg)
...
t('aa', 'bb', 'cc')
arg: aa
arg: bb
arg: cc
```

or

```python
def t(*args):
...     for arg in args:
...         print('arg: ',  arg)
            print('arg: '+  arg)
...
t('aa', 'bb', 'cc')
arg: aa
```

```
arg: bb
arg: cc
```

HW Exercise:

- Write a function that prints the names and values of keyword arguments passed to it.

Solution:

```python
def t(**kwargs):
...     for key in kwargs.keys():
...         print( 'key: %s  value: %s' % (key, kwargs[key], ))
...
t(arg1=11, arg2=22)
key: arg1  value: 11
key: arg2  value: 22
```

**kwargs NOT a python key term

```python
def t(**WhatYouPassIn):
...     for key in WhatYouPassIn.keys():
...         print( 'key: %s  value: %s' % (key, WhatYouPassIn[key], ))
...
t(arg1=11, arg2=22)
key: arg1  value: 11
key: arg2  value: 22
```

HW - Write a python script (file) that prints your name as all lower case, upper case and proper capitalization. (Bonus) if you can pass in your name: input()? argparse? etc

Solution

def print_names(my_str): print("Name:", my_str) print("Name Upper:", my_str.upper()) print("Name Lower:", my_str.lower()) print("Name Title:", my_str.title())

if **name**=='**main**': mystr = input("Type your name") print_names(mystr)