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Stop Using print() Every Time In Python — Use pprint() Instead

Mini Hack to Make Your Python Programming Less Painful

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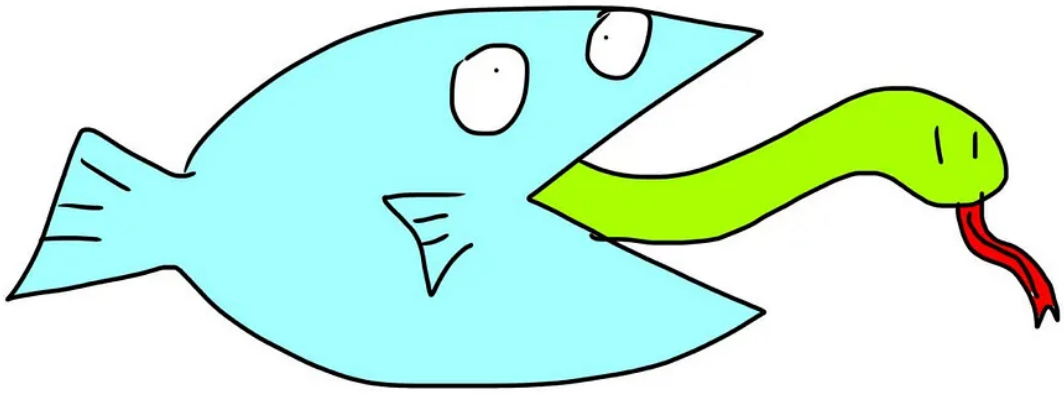


Let's say I have a messy nested data structure.

```
x = [
  {'apple': [1,2,3], 'orange':[4,5,6]},
  {'pear': [7,8,9], 'pineapple':[10,11,12]},
  {'durian':[13,14,15], 'banana':[16,17,18]}
]
```

^ here's a list of dictionaries containing smaller lists inside.

If we `print(x)`, we get:

```
lzl@Lius-MacBook-Pro test % python3 b.py
[{'apple': [1, 2, 3], 'orange': [4, 5, 6]}, {'pear': [7, 8, 9], 'pineapple': [10, 11, 12]}, {'durian':
 [13, 14, 15], 'banana': [16, 17, 18]}]
```

Imagine if we had more data. The output would become even more unreadable!

Enter our benevolent saviour pprint()

`pprint` is built-in, so we don't need to install anything.

```
from pprint import pprint

pprint(x)
```

```
lzl@Lius-MacBook-Pro test % python3 b.py
[{'apple': [1, 2, 3], 'orange': [4, 5, 6]},
 {'pear': [7, 8, 9], 'pineapple': [10, 11, 12]},
 {'banana': [16, 17, 18], 'durian': [13, 14, 15]}]
```

- one simple `from pprint import pprint` line is needed
- it makes our messy data more human-readable

- it doesn't require us to manually make it human-readable

Can't we just write a for loop instead?

Let's say we have a even more messy data structure.

```
x = {
  'name':'tom',
  'dad': {'name': 'jerry',
          'dad':{'name':'greg'},
          'mom':{'name':'susie'}
          },
  'mom': {'name': 'mary'},
  'wife': {'name': 'susan'},
  'son': {'name': 'tim',
          'dad':{'name':'tom'},
          'mom':{'name':'susan'},
          'wife':{'name':'cassie'},
          'daughter': {'name':'lala',
                       'husband': 'bobo'
                       }
          }
}
```

Here we have some screwed up family tree as an example with multiple multiple levels of nesting.

We have 2 options to visualize this:

1. we manually write a recursive function to print out everything
2. we use `pprint`

```
from pprint import pprint

pprint(x)
```

```
lzl@Lius-MacBook-Pro test % python3 b.py
{'dad': {'dad': {'name': 'greg'}, 'mom': {'name': 'susie'}, 'name': 'jerry'},
 'mom': {'name': 'mary'},
 'name': 'tom',
 'son': {'dad': {'name': 'tom'},
         'daughter': {'husband': 'bobo', 'name': 'lala'},
         'mom': {'name': 'susan'},
         'name': 'tim',
         'wife': {'name': 'cassie'}},
 'wife': {'name': 'susan'}}
```

Here, `pprint` automatically formats our messy as hell data structure with zero effort needed from our part.

Note — if you wish to challenge yourself and write a recursive function to do this, by all means. When I have 100 other things to care about, I'll take `pprint` in a heartbeat!

pprint() but with more indent

Sometimes we want more indent to make things neater. We can do this by adding the `indent` keyword inside `pprint`

```
from pprint import pprint

pprint(x, indent=4)
```

```
lzl@Lius-MacBook-Pro test % python3 b.py
{   'dad': {'dad': {'name': 'greg'}, 'mom': {'name': 'susie'}, 'name': 'jerry'},
    'mom': {'name': 'mary'},
    'name': 'tom',
    'son': {   'dad': {'name': 'tom'},
               'daughter': {'husband': 'bobo', 'name': 'lala'},
               'mom': {'name': 'susan'},
               'name': 'tim',
               'wife': {'name': 'cassie'}},
    'wife': {'name': 'susan'}}
```

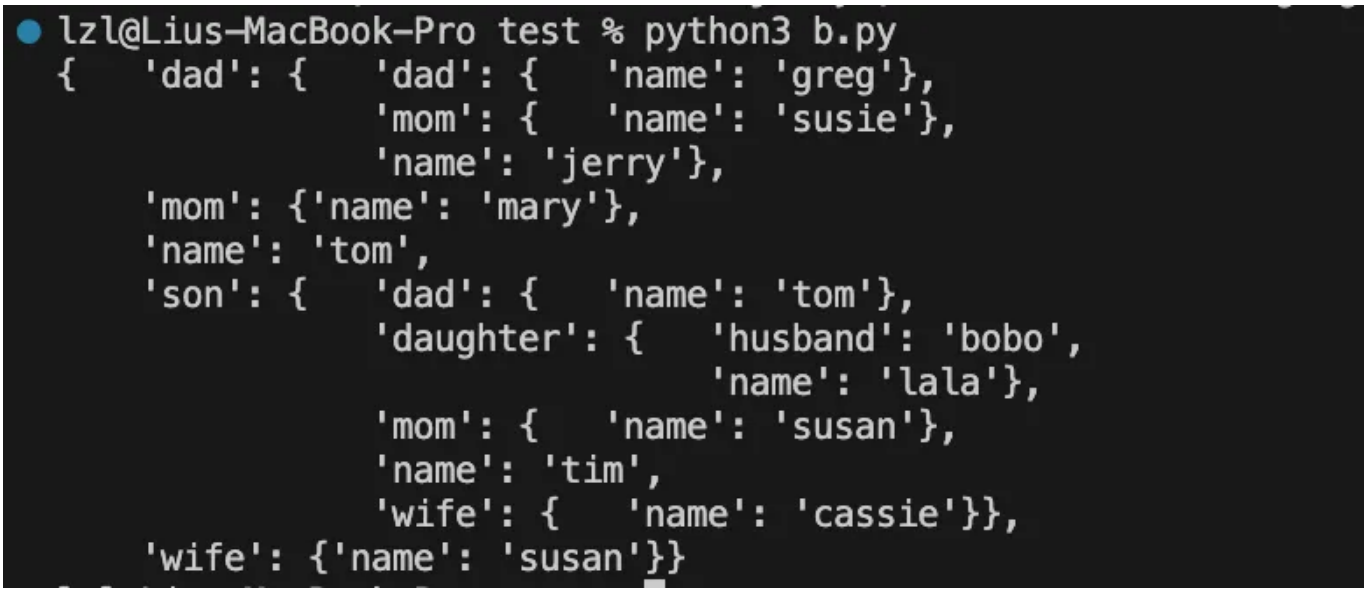
^ neater I guess? this is up to your preference

pprint() but with a max width

Sometimes even with `pprint`, our output still looks messy as hell. In these cases, we can set a max width inside the `pprint` function — every line printed will not exceed this max width.

```
from pprint import pprint

pprint(x, indent=4, width=30)
```



^ slightly neater!

Conclusion

I've done this the manual way (without `pprint`) too many times, and can safely say that I wish I knew about `pprint` much earlier in my Python journey.

Hope this was helpful to you in some way!

Some Final words

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