

python - OOP

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Good

- inheritance

```
>>> class myInt(int):  
...     def __add__(self, x):  
...         return self - x  
>>> myInt(1)+1  
0
```

Good

- inheritance

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- polymorphism

```
>>> myInt(1)+2  
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>>> 1+2  
2  
>>> '1'+ '2'  
'12'
```

Good

- inheritance

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>>> class myInt(int):
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>>> myInt(1)+1
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- polymorphism

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- Data abstraction

Bad

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Bad

- its not all rainbows and lipsticks!
- The real world is not all black and white (neat classes)
- it could become complex to handle al the diverent objects and outcomes

OOPython

- create normal object

```
class myC(object):  
    def __init__(self, a):  
        self.val = a  
    def __del__(self):  
        del self.val  
    def __str__(self):  
        return "My Value is: '%s'" % self.val  
    def func(self, b):  
        self.val *= b
```


OOPython inherited

- create inherited object

```
class childC(myC):  
    def func(self,b):  
        self.val += b
```

OOPython inherited

- create inherited object

```
class childC(myC):  
    def func(self,b):  
        self.val += b
```

- exec

```
>>> mC = myC(2)  
>>> mC.func(3)  
>>> cC = childC(2)  
>>> cC.func(3)  
>>> print mC  
My Value is: '6'  
>>> print cC  
My Value is: '5'
```

Simple OOP

- Example with cars

Cars
wheels tankCap passCap consumption
horn() drive(int km) refuel(int l) loading(int kg) unloading(int kg)

Simple OOP

- Example with cars

