Lecture-9

Polymorphism and Exception in Python

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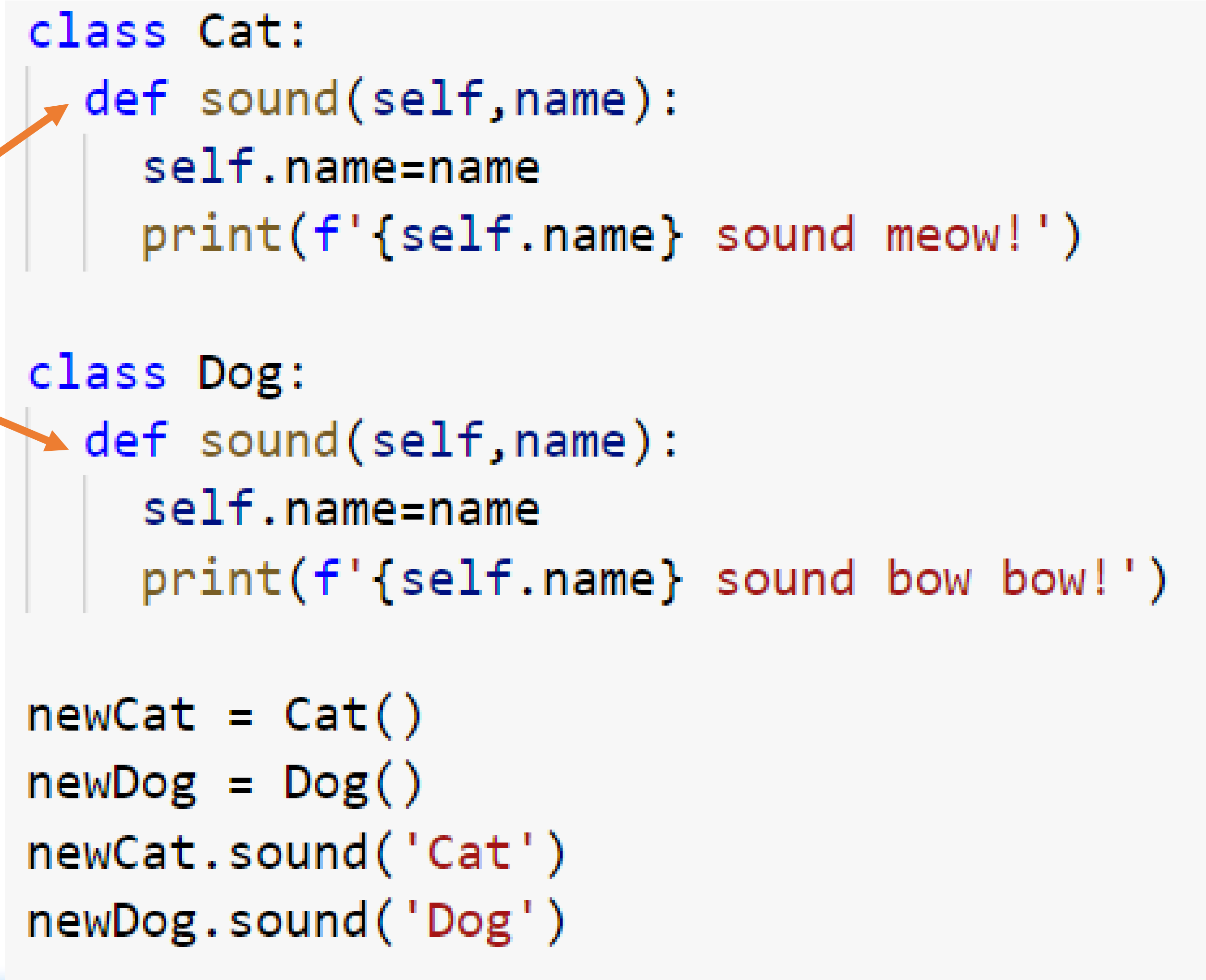
Polymorphism

- The word polymorphism means having many forms.
- In programming, polymorphism means method/function with same name (but different signatures) being uses for different types and purpose.

Polymorphism

Method with same name playing different role in different place



```
class Cat:
    def sound(self,name):
        self.name=name
        print(f'{self.name} sound meow!')

class Dog:
    def sound(self,name):
        self.name=name
        print(f'{self.name} sound bow bow!')

newCat = Cat()
newDog = Dog()
newCat.sound('Cat')
newDog.sound('Dog')
```

Handling exception

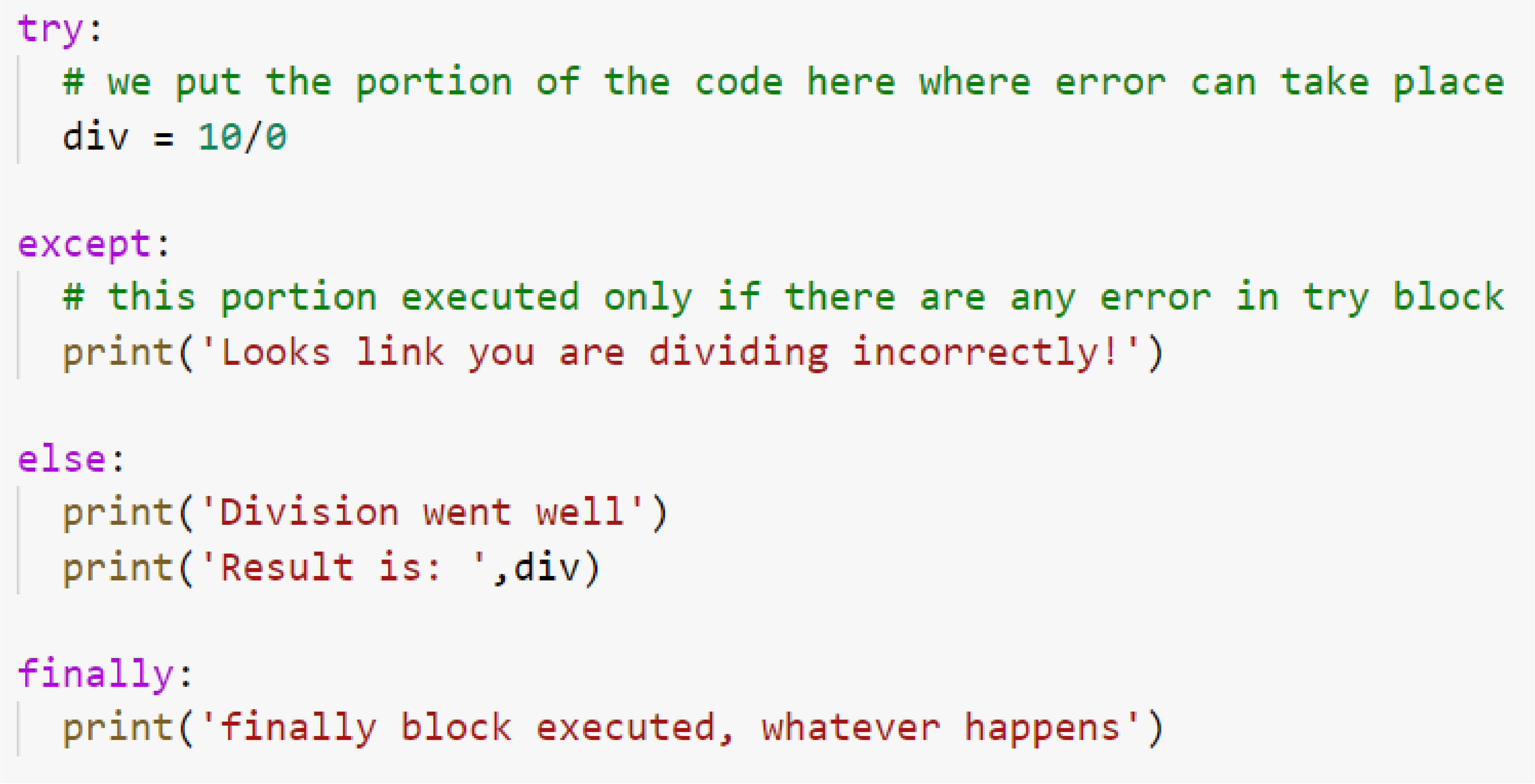
- Error are bound to happen in your code!
- Especially when someone else ends up using it in an unexpected way.
- We can use error handling to attempt to plan for possible error.

Handling exception

We can use three keywords for this exception handling:

- **try:** this is block of code to be attempted (may load to an error)
- **except:** block of code will execute in case there is an error in try block
- **finally:** a final block of code is always executed, regardless of an error

Handling exception



```
try:
    # we put the portion of the code here where error can take place
    div = 10/0

except:
    # this portion executed only if there are any error in try block
    print('Looks link you are dividing incorrectly!')

else:
    print('Division went well')
    print('Result is: ',div)

finally:
    print('finally block executed, whatever happens')
```

Thank You