1. class Thing:

pass

print(Thing)

example = Thing()

print(example)

<class '\_\_main\_\_.Thing'>

<\_\_main\_\_.Thing object at 0x0000019773483280>

1. class Thing2:

letters = 'abc'

print(Thing2.letters)

abc

1. class Thing3:

def \_\_init\_\_(self):

self.letters = 'xyz'

try:

print(Thing3.letters) # Will raise a syntax Error

except:

my\_thing = Thing3()

print(my\_thing.letters)

xyz

1. class Element:

def \_\_init\_\_(self, name, symbol, number):

self.name = name

self.symbol = symbol

self.number = number

my\_elements = Element('Hydrogen','H',1)

1. custom\_dict = {'name':'Hydrogen','symbol':'H','number':1}

print(custom\_dict)

# Method 1

hydrogen = Element(\*custom\_dict.values())

print('Using Method #1 ->',hydrogen.name,hydrogen.symbol,hydrogen.number, sep='\t')

# Method 2

hydrogen = Element(\*\*custom\_dict)

print('Using Method #2 ->',hydrogen.name,hydrogen.symbol,hydrogen.number, sep='\t')

{'name': 'Hydrogen', 'symbol': 'H', 'number': 1}

Using Method #1 -> Hydrogen H 1

Using Method #2 -> Hydrogen H 1

1. class Element:

def \_\_init\_\_(self, name, symbol, number):

self.name = name

self.symbol = symbol

self.number = number

def dump(self):

print(self.name, self.symbol, self.number)

hydrogen = Element('Hydrogen','H',1)

hydrogen.dump()

1. print(hydrogen)

class Element:

def \_\_init\_\_(self, name, symbol, number):

self.name = name

self.symbol = symbol

self.number = number

def \_\_str\_\_(self):

return f'{self.name} {self.symbol} {self.number}'

Hydrogen = Element('Hydrogen','H',1)

print(Hydrogen)

<\_\_main\_\_.Element object at 0x00000197734BC280>

Hydrogen H 1

1. class Element:

def \_\_init\_\_(self,name,symbol,number):

self.\_\_name = name

self.\_\_symbol = symbol

self.\_\_number = number

@property

def get\_name(self):

return self.\_\_name

@property

def get\_symbol(self):

return self.\_\_symbol

@property

def get\_number(self):

return self.\_\_number

hydrogen = Element('Hydrogen','H',1)

print(hydrogen.get\_name)

print(hydrogen.get\_symbol)

print(hydrogen.get\_number)

Hydrogen

H

1

1. class Bear:

def eats(self):

print('berries')

class Rabbit:

def eats(self):

print('clover')

class Octothorpe:

def eats(self):

print('campers')

bear = Bear()

rabbit = Rabbit()

octothrope = Octothorpe()

bear.eats()

rabbit.eats()

octothrope.eats()

berries

clover

campers

1. class Laser:

def does(self):

return 'disintegrate'

class Claw:

def does(self):

return 'crush'

class Smartphone:

def does(self):

return 'ring'

class Robot:

def \_\_init\_\_(self):

self.laser = Laser()

self.claw = Claw()

self.smartphone = Smartphone()

def does(self):

print(self.laser.does(),self.claw.does(),self.smartphone.does())

r2d2 = Robot()

r2d2.does()

disintegrate crush ring