**Assigngment19**

In [1]:

**1.class** Thing:

**pass**

print(Thing)

example **=** Thing()

print(example)

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

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

In [2]:

**2.class** Thing2:

letters **=** 'abc'

print(Thing2**.**letters)

abc

In [3]:

**3.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)

xy

In [4]:

**4.class** Element:

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

self**.**name **=** name

self**.**symbol **=** symbol

self**.**number **=** number

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

In [5]:

5.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

In [6]:

**6.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()

Hydrogen H 1

In [7]:

7.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>

Hydrog**.**

In [8]:

**8.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

In [9]:

**9.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**.**

In [10]:

**10.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