

## 0.1 Python test

```
1      # -*- coding: utf-8 -*-
2      """
3      Created on Sat Mar  7 15:09:03 2020
4
5      @author: anne smal
6      """
7      import random
8      import datetime
9
10     class Human :
11
12         def __init__ (self, name, bd=None) :
13             self._name = name
14             if bd :
15                 self._birthday = bd
16             else :
17                 self._birthday = datetime.date.today()
18             self._gender = random.choice('MF')
19
20         @property
21         def name(self):
22             return self._name
23         @name.setter
24         def name(self, new_name):
25             self._name = new_name
26
27         """
28         @property
29         def age(self):
30             return self._age
31         @age.setter
32         def age(self, new_age):
33             self._age = new_age
34         """
35
36         @property
37         def gender(self):
38             return self._gender
39         @gender.setter
40         def gender(self, new_gender):
41             self._gender = new_gender
42
43         @property
44         def birthday(self):
45             return self._birthday
46
47         def say(self, message) :
48             print(self._name, ":", message)
49
50
51
52
53         @property
54         def age(self):
55             today = datetime.datetime.now()
```

```

56         age = today.year - self._birthday.year
57
58         if (today.month < self._birthday.month) or (today.month ==
59             self._birthday.month and today.day < self._birthday.day):
60             age -= 1
61
62         return age
63
64 if __name__ == "__main__" :
65     bd = datetime.date(2000, 2, 21)
66     bob = Human("Bob", bd)
67     bob.say("I am " + str(bob.age) + " years old")

```