solutionnaire

June 29, 2019

0.0.1 Exercice 1

```
In [4]: import numpy as np
        grosse_arr = np.arange(100).reshape(10, 10)

        def exercice1(arr):
          x = arr[-1][:]
          return x

        assert (exercice1(grosse_arr) == np.array([90, 91, 92, 93, 94, 95, 96, 97, 98, 99])).al
```

0.0.2 Exercice 2

```
In [1]: def exercice2(nombre1, seuil_inférieur1, seul_supérieur1,
                      nombre2, seuil_inférieur2, seul_supérieur2):
          cond1 = nombre1 > seuil_inférieur1 and nombre1 < seul_supérieur1
          cond2 = nombre2 > seuil_inférieur2 and nombre2 < seul_supérieur2
          return cond1 or cond2

        assert exercice2(10, 15, 20, 12, 10, 11) == False

        assert exercice2(8, 6, 9, 10, 11, 22) == True
```

0.0.3 Exercice 3

```
In [5]: x = np.random.randn(100)

        def exercice3(arr):
          somme = 0
          for el in arr:
            somme = somme + el

          return somme / arr.size


        assert '{:3f}'.format(exercice3(x)) == '{:3f}'.format(np.average(x))
```

0.0.4 Exercice 4

```
In [7]: import pandas as pd
        whr = pd.read_csv('world-happiness-report-2019.csv')

        def exercice4(rangée):
          plus_bas = 10000
          for élément in rangée:
            if élément <= plus_bas:
              plus_bas = élément

          return plus_bas

        rangée = whr.iloc[39, 1:]
        assert exercice4(rangée) == 28
```