

# Exercises 03

Numpy, Pandas, OOP

1575

Numpy

## Exercise 01

- Create an 3d numpy array with dimensions (4, 5, 3), and print the dimensions finally.

Numpy

## Exercise 02

- change the shape of created array in the exercise 01 to (20, 3) and check the current dimensions!

Numpy

## Exercise 03

- index and print the number 50 from the arr.

```
arr = np.array([[10, 20, 30, 40], [50, 60, 70, 80]])
```

Numpy

## Exercise 04

- Change the element datatype of the arr to float!

```
arr = np.array([[10, 20, 30, 40], [50, 60, 70, 80]])
```

Numpy

## Exercise 05

- join arr1 and arr2 into a single array!

```
arr1 = np.array([1, 2, 3])
```

```
arr2 = np.array([4, 5, 6])
```

Pandas

## Exercise 06

- Load the dataset (cancer.csv)!

Pandas

## Exercise 07

- Print an overview of the dataset.



Pandas

## Exercise 08

- Print 13 last samples of the dataset.

Pandas

## Exercise 09

- Print states with total rate of less than 200

Pandas

## Exercise 10

- Print number of states with total rate of less than 200

Pandas

## Exercise 11

- Print rows between 35 and 112 , and columns between 14 to 28 (use iloc)

Pandas

## Exercise 12

- print unique values of the Rates.Age.< 18 column!

Pandas

## Exercise 13

- print mean of the Rates.Age.< 18

Pandas

## Exercise 14

- Find max of Total.Population and subtract all values of Total.Population column from the maximum value using lambda function.

## Class and Object

# Exercise 15

- Implement following architecture using OOP!
- use `__str__` to print output same as: Breed of the dog is {Breed}, It is {Size} and {Color} , the dog is {Age} years old.

