Introduction to Python

#

• to make comments in your script

**

• Exponentiation: 4**2 = 16

%

Modulo:

[start : end]

• inclusive : exclusive

list() / [:]

- to make a copy of the list without changing the real one
- E.g:

```
# Create list areas
areas = [11.25, 18.0, 20.0, 10.75, 9.50]

# Create areas_copy
areas_copy = list(areas)

# Change areas_copy
```

```
areas_copy[0] = 5.0

print(areas)
print(areas_copy)
[11.25, 18.0, 20.0, 10.75, 9.5]
[5.0, 18.0, 20.0, 10.75, 9.5]
```

Functions in Python:

1) round()

- round(number)
 - round(1.68)
 - result: 2
- round(number, ndigits)
 - round(1.68, 1)
 - result: 1.7

2) help(x) / ?x

- · ask for information about a function
- E.g. help(max) / ?max

3) .index()

• to get the index of the first element of a list that matches its input

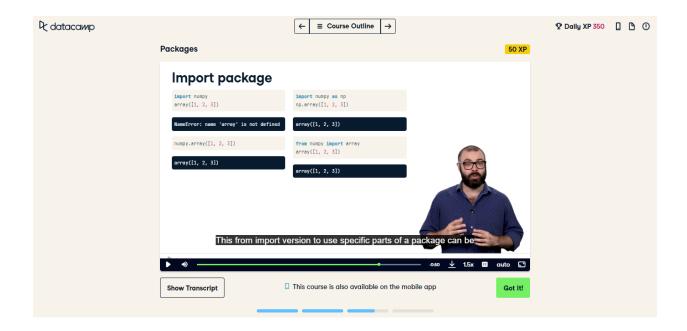
4) .count()

- to get the number of times an element appears in a list
- append(), that adds an element to the list it is called on,
- remove(), that removes the first element of a list that matches the input, and
- reverse(), that reverses the order of the elements in the list it is called on.

Packages in Python

Used for Data Science:

- 1. Numpy
- 2. Matplotlib
- 3. Scikit-learn



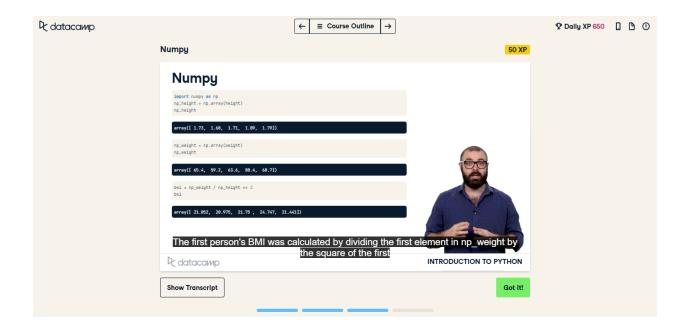
import numpy as np is the best to use!!!

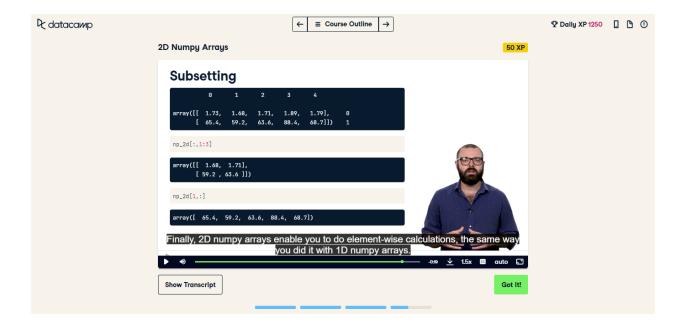
General imports, like <u>import math</u>, make **all** functionality from the <u>math</u> package available to you. However, if you decide to only use a specific part of a package, you can always make your import more selective:

```
from math import pi
```

Numpy

• example of its use is on arrays





np_2d[row, column]