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11-2-22

CTEC 298

Learn Python Part 3

13.Numpy Arrays

The screenshot shows a web browser window with the URL https://www.learnpython.org/en/Numpy_Arrays. The page is titled "Numpy Arrays - Learn Python" and is powered by DataCamp. It features an "Exercise" section with the following instructions: "First, convert the list of weights from a list to a Numpy array. Then, convert all of the weights from kilograms to pounds. Use the scalar conversion of 2.2 lbs per kilogram to make your conversion. Lastly, print the resulting array of weights in pounds." The exercise is completed, and a "Great job!" message is displayed. The code in the script.py file is as follows:

```
1 weight_kg = [81.65, 97.52, 95.25, 92.98, 86.18, 88.45]
2
3 import numpy as np
4
5 # Create a numpy array np_weight_kg from weight_kg
6 np_weight_kg = np.array(weight_kg)
7
8 # Create np_weight_lbs from np_weight_kg
9 np_weight_lbs = np_weight_kg * 2.2
10
11 # Print out np_weight_lbs
```

The IPython Shell output shows the resulting array: `<script.py> output: [179.63 214.544 209.55 204.556 189.596 194.59]`. The bottom of the page features a banner for "Welcome to edge computing for the 4th Industrial Revolution" and a "LUMEN" logo.

14.Pandas Basics

The screenshot shows a web browser window with the URL https://www.learnpython.org/en/Pandas_Basics. The page is titled "Pandas Basics - Learn Python" and is powered by DataCamp. It features an "Exercise" section with the following instructions: "You can also use `loc` and `iloc` to perform just about any data selection operation. `loc` is label-based, which means that you have to specify rows and columns based on their row and column labels. `iloc` is integer index based, so you have to specify rows and columns by their integer index like you did in the previous exercise." The exercise is completed, and a "Great job!" message is displayed. The code in the script.py file is as follows:

```
1 # Import cars data
2 import pandas as pd
3 cars = pd.read_csv('cars.csv', index_col = 0)
4
5 # Print out observation for Japan
6 print(cars.iloc[2])
7
8 # Print out observations for Australia and Egypt
9 print(cars.loc[['AUS', 'EG']])
```

The IPython Shell output shows the resulting data:

```
<script.py> output:
cars_per_cap    588
country         Japan
drives_right    False
Name: JAP, dtype: object
cars_per_cap    735  country drives_right
AUS              735  Australia   False
EG               45    Egypt     True
```

The bottom of the page features a banner for "Medicare Help at Wegmans" with a "Learn More" button.