numpy_and_control_flow_workbook

September 22, 2020

1 NUMPY AND CONTROL FLOW WORKBOOK

COURSE NAME WORKBOOK ANSWERS Remember, there are different ways to write code to get the same answer, so your answer can be correct and different to the answer example!

If you feel stuck and want some in person help, then have a look at the events page to join in a workshop https://swamphen.co.uk/events.

```python
In [4]: # import numpy
```

```python
In [5]: # we will look at the post example again
```

```python
In [6]: post = [(7,5,0.5), (10,10,1.5), (25,13,7), (20, 5, 5), (24, 16.5, 0.5)]
        # length, width, thickness of an item of post
```

```python
In [1]: # change this from a list of tuples to a NumPy array
```

```python
In [2]: # iterate over this NumPy array and print out the width
```

```python
In [3]: # iterate over this NumPy array and add the three values together
        # print to screen
```

```python
In [4]: # calculate the volume of the items of post and save to a new array
```

```python
In [5]: # add this volume value as a fourth column in the array
        # make sure you have your volume array in the correct format!
```

```python
In [6]: mass = [[.2], [1.5], [.5], [.1], [4]]
        # if the mass (kg) of the parcel is as the above list of lists
        # add this to the original array as a new column
```

```python
In [7]: # calculate the density of the parcel and print out
```

```python
In [8]: # if a small letter has maximum dimensions
        max_dimensions = [24, 16.5, 0.5]
        # select the small letters from the list
```