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Class: Python 101

Week 2 Lesson 2

Problems

1

Write a script that * generates an array of numbers from 16-100,000 with a stride of 4. * reshape it to a 2083 rows by 12 columns * print out the first 3 and last 3 rows

2

Build an numpy array WITH named types

3

Build a numpy array ones called “A” * take a slice out and call that slice by variable b. * multiply b by 5 * print(A) * repeat above WITHOUT or WITH changing the value of “A”

4

Take the mode of the data in the last example BUT use dtype ‘U5’ for header

Solution

1

```
import numpy as np
a = np.arange(16,100_000,4)
b = a.reshape(2083,12)
print(b[:3,:])
print(b[-3:,:])
```

2

```
bb = np.array([[3,4,6.78],[7.5,3,5]])
bb = bb.astype([('col1','float'),('col2','int8'),('col3','float32')])
print(bb['col3'])
print(bb[2,:])
```