NumPy

Instructions

NumPy Exercise (30 Points)

- Create a new Jupyter Notebook
- Import numpy
- Work the problems below (3 points each)
- Submit a PDF output of your work to the dropbox for grading

First, make a common array to work with.

```
np.random.seed(21)
random_integers = np.random.randint(1,high=500000, size=(20, 5))
random_integers
```

1. What is the average value of the second column?
2. What is the average value of the first 5 rows of the third and fourth columns?
3. Create a 10 x 10 slice from of *random_integers* array, named *arrayTenByTen*, that started at 0:0 from random_integers
4. Creta a new array from the *arrayTenByTen* that is one rank and

called *arrayTenFlat*

5. What is the sum of *arrayTenFlat*?
6. Iterate through *arrayTenFlat*
7. What is the value of the element (9,2) in *random_integers* array?
8. What is the data type of *arrayTenFlat*?
9. In *arrayTenFlat* replace the value in index 5 with 42
10. Save the array *random_integers* to a file. List the directory showing the saved array.

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Activity Details

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Due February 21 at 11:30 PM Ends Feb 28, 2021 11:30 PM

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