PYTHON NUMPY TUTORIAL

Notes by Sharad sir

***What is NumPy?

NumPy is a Python library used for working with arrays. It also has functions for working in domain of linear algebra, fourier transform, and matrices.

NumPy stands for Numerical Python.

*** Why Use NumPy?

In Python we have lists that serve the purpose of arrays, but they are slow to process.

NumPy aims to provide an array object that is up to 50x faster than traditional Python lists.

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***Why is NumPy Faster Than Lists?
NumPy arrays are stored at one continuous place in memory unlike lists, so processes can access and manipulate them very efficiently.

***Which Language is NumPy written in?
NumPy is a Python library and is written partially in Python, but most of the parts that require fast computation are written in C or C++.

***Where is the NumPy Codebase?
The source code for NumPy is located at this github repository
https://github.com/numpy/numpy

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***Installation of NumPy

If you have Python and PIP already installed on a system, then installation of NumPy is very easy.

Install it using this command:

```
C:\Users\Your Name>pip install numpy
```

***Import NumPy

Once NumPy is installed, import it in your applications by adding the import keyword:

```
import numpy
```

***Checking NumPy Version

```
import numpy as np
print(np.___version___)
```