Python Advance Assignment 1

1.**What makes NumPy.shape() diffeíent fíom NumPy.size()?**

Answer:Numpy shape property is used to get current and perfect shape of the array and it is also used to reshape the array by assigning the tuple of the array.

Syntax of the Numpy Shape

numpy.shape(array_name)

Numpy.size is a property that is used to count the number of elements in the list or in the axis.

Syntax of the Numpy.Size

numpy.shape(array_axis=None)

The Difference make that the shape will give the Stuctural Shape to the 2-Demensions,Whereas Size gives the Number of elements that are present in the list are tuple.

1. **In NumPy, descíibe the idea of boardcasting.**

Answer; The Term boardcasting python represents the How the Numpy treats the Demensional shapes of the arrays and different shapes of the arrays during in the arthmeric operations.It answers the comparable shapes for example the small arrays broadcast the large array and it gives the comparsion across between them in shape.

2. **What makes Python better than other libraries for numerical computation**?

Answer: **Scipy (Scientific Numeric Library)** The library consists of modules for optimisation,image processing, FFT, special functions and signal processing. The SciPy package includes algorithms and functions which are the crux of Python scientific computing capabilities

3. **How does NumPy deal with files?**

Answer;We can save your NumPy arrays to CSV files **using the savetxt() function**. This function takes a filename and array as arguments and saves the array into CSV format. You must also specify the delimiter; this is the character used to separate each variable in the file, most commonly a comm

4. Mention the impoítance of NumPy.empty().

Answer; This function is used to **create an array without initializing the entries of given shape and type**.