**ML ASSIGNMENT -1**

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1. Numpy: a. Using NumPy create random vector of size 15 having only Integers in the range 1-20. 1. Reshape the array to 3 by 5 2. Print array shape. 3. Replace the max in each row by 0 Create a 2-dimensional array of size 4 x 3 (composed of 4-byte integer elements), also print the shape, type and data type of the array.

A screenshot of a computer code

Description automatically generated with medium confidence

**b.** Write a program to compute the eigenvalues and right eigenvectors of a given square array given below: [[ 3 -2] [ 1 0]]

**c.** Compute the sum of the diagonal element of a given array. [[0 1 2] [3 4 5]]

**d.**3x2: [[1 2] [3 4] [5 6]] Reshape 2x3: [[1 2 3] [4 5 6]]

A screenshot of a computer

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1. Matplotlib 1. Write a Python programming to create a below chart of the popularity of programming Languages. 2. Sample data: Programming languages: Java, Python, PHP, JavaScript, C#, C++ Popularity: 22.2, 17.6, 8.8, 8, 7.7, 6.7

A picture containing text, screenshot, diagram, colorfulness

Description automatically generated

GIT HUB LINK: <https://github.com/uday2909/ML-ASSIGNMENT-1.git>

ML VIDEO PRESENTATION:

https://drive.google.com/file/d/1GR3KmG6E9nTab\_U4gjL5FnQ-uoHMsiJa/view?usp=sharing