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| 2 | 21/07/25 | 1. Consider a list datatype (1D) then reshape it into2D, 3D matrix using numpy      1. Generate random matrices using numpy      1. Find the determinant of a matrix using scipy      1. Find eigen value and eigen vector of a matrix using scipy      1. Implementation of Python Libraries for ML application such as Pandas and Matplotlib 2. Implementation of Python Libraries for ML application such as Pandas and Matplotlib      1. Create a Series using pandas and display      1. Access the index and the values of our Series      1. Compare an array using Numpy with a series using pandas      1. Define Series objects with individual indices      1. Access single value of a series      1. Load datasets in a Dataframe variable using pandas      1. Usage of different methods in Matplotlib. |
| 1. Creation and Loading different types of datasets in Python using the required libraries.      1. Creation using pandas      1. Loading CSV dataset files using Pandas      1. Loading datasets using sklearn      1. Write a python program to compute Mean, Median, Mode, Variance, Standard Deviation using Datasets      1. Demonstrate various data pre-processing techniques for a given dataset. 2. Write a python program to compute    1. Reshaping the data,      * 1. Filtering the data      * 1. Merging the data      * 1. Handling the missing values in datasets      * 1. Feature Normalization: Min-max normalization |