

Practical-1

Perform following Numpy Operations:

- Create a 1D NumPy array with values from 0 to 9.
- Create a 2D array with shape (3, 4) filled with random integers.
- Reshape the 2D array into a new shape (4, 3).
- Extract the third element from a 1D array.
- Get the last two columns from a 2D array.
- Create a 3x3 matrix with values ranging from 0 to 8 and extract the diagonal elements.
- Perform element-wise multiplication of two arrays.
- Calculate the mean, median, and standard deviation of an array.
- Normalize the values in a 1D array to the range [0, 1].
- Concatenate a 1D array with itself three times.
- Replace all even elements in an array with their negative values.
- Add a constant value to each column of a 2D array
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- Perform element-wise addition of two matrices A and B.
- Subtract matrix B from matrix A element-wise.
- Multiply each element of matrix A by a scalar value.
- Reshape a 1D array into a 2D array (e.g., from (9,) to (3,3)).
- Flatten a 2D array into a 1D array.
- Transpose a 2D array.