NumPy Questions:

1. Create a 1D array containing numbers from 0 to 9.
2. Create a 3x3 matrix with values ranging from 0 to 8.
3. Create a 5x5 identity matrix.
4. Create a 1D array with 10 equidistant values between 0 and 1.
5. Generate a random 3x3 matrix with values in the range [0, 1).
6. Multiply a 5x3 matrix by a 3x2 matrix.
7. Find the mean, median, and standard deviation of a given array.
8. Create a 3x3 matrix with random values and normalize it.
9. Reshape a 1D array into a 2D array with 2 rows.
10. Extract all odd numbers from an array.
11. Reverse a given array (first element becomes last).
12. Replace all odd numbers in an array with -1.
13. Find the 5th and 95th percentile of a given array.
14. Compute the outer product of two given vectors.
15. Compute the determinant of a given square matrix.
16. Find the eigenvalues and eigenvectors of a given matrix.
17. Perform element-wise multiplication of two arrays.
18. Find the index of the maximum value in an array.
19. Compute the inverse of a given matrix.
20. Calculate the dot product of two matrices.

Pandas Questions:

21. Create a DataFrame from a dictionary of lists.
22. Select the first 3 rows of a DataFrame.

23. Select a specific column from a DataFrame.
24. Add a new column to an existing DataFrame.
25. Filter rows in a DataFrame based on a condition.
26. Group a DataFrame by a specific column and find the mean of each group.
27. Merge two DataFrames based on a common column.
28. Rename the columns of a DataFrame.
29. Sort a DataFrame by values in a specific column.
30. Pivot a DataFrame to reshape it based on column values.