- **Interview Questions (Theory)**
  1. What is indexing in NumPy?
  2. What is slicing in NumPy?
  3. What is the difference between indexing and slicing?
  4. What is negative indexing? Give an example.
  5. How do you extract specific rows and columns from a NumPy array?
  6. What is boolean indexing, and why is it useful in data analysis?
  7. What is fancy indexing in NumPy?
  8. How can you modify specific elements in a NumPy array using conditions?
  9. What is the output shape of slicing operations like arr[1:3, 2:4]?
  10. Can we reverse a NumPy array using slicing? How?

- **NumPy Indexing & Slicing — Coding Questions**
  1. Create a 1D NumPy array of 10 numbers and print the 3rd element.
  2. Print the last two elements of a 1D NumPy array using negative indexing.
  3. Create a 2D array (3×4) and extract the 2nd row.
  4. From the same 2D array, extract the 1st and 3rd columns.
  5. Print the elements from index 2 to 7 in a 1D array.
  6. Get every second element from a 1D array using slicing.
  7. Reverse a 1D array using slicing.
  8. From a 2D array, extract rows 1 to 2 and columns 2 to 4.
  9. Print all elements of a NumPy array that are greater than 50.
  10. Print only even numbers from a NumPy array.
  11. Create a NumPy array of 10 elements and print elements at index positions [0, 2, 5, 7].
  12. Replace all negative numbers in an array with 0.
  13. From a 2D array, print all rows where the first column value is greater than 10.
  14. Create a 3D NumPy array (2×3×4) and print the element at position [1, 2, 3].
  15. Slice the last column from a 2D NumPy array.
  16. Slice the first two rows and last two columns from a 2D NumPy array.
  17. Use slicing to extract alternate rows from a 2D array.
  18. Create a 1D array and assign 99 to elements from index 2 to 5.
  19. Extract all odd numbers from a NumPy array using Boolean indexing.
  20. Create a 4×4 array and print the diagonal elements using indexing.