**Numpy Task 1**

1. Explain the difference between 1-dimensional, 2-dimensional, and 3-dimensional arrays.
2. Explain the difference between array and list?
3. How do you access elements in a 1-dimensional NumPy array? Provide examples.
4. How do you create a 1D NumPy array with values from 0 to 20?
5. Given a 1D array arr = np.array([1, 2, 3, 4, 5]), how do you reshape it into a 2x3 array? What error do you get?
6. How can you access the third element of a 1D array arr = np.array([10, 20, 30, 40, 50])?
7. How do you access the element at position (1, 2, 2) in array?
8. How do you find the number of dimensions of a NumPy array arr = np.array([[1, 2, 3], [4, 5, 6]])?
9. How do you access the element in the second row and third column of array?
10. Create an array with 6 dimensions using a 2D vector with values [1,2,3,4],[5,6,7,8] and verify that last dimension has value 4.
11. How do you modify the last element of array to be 100?
12. Extract all even numbers from the array a = np.array([1, 2, 3, 4, 5, 6, 7, 8, 9]).
13. Extract the third element from the array a = np.array([1, 2, 3, 4, 5])
14. Given the array a = np.array([1, 2, 3, 4, 5]) and b = np.array([6, 7, 8, 9, 10]), use np.where to replace elements in a that are less than 3 with -3, then horizontally stack a and b.
15. Create an array using np.arange from 0 to 10 with a step of 0.5. Then, use a filter to find all values that are greater than 5. What are the resulting elements?