 **NumPy**is a Python library that is the core library **for scientific computing in Python**.

 It contains a **collection of tools** and techniques that can be used to solve on a computer mathematical models of problems in Science and Engineering. One of these tools is a **high-performance multidimensional array** object that is a powerful data structure for efficient computation of arrays and matrices.

 The **same approach** is taken for almost **every library in python** when we want to use it. We either import the entire library or just the part we want to use.

 An **array**is a *collection of elements*of the **same data type.**

 You should know that, on a **structural level**, an **array**is basically *nothing but pointers*. It’s a combination of a memory address, a data type, a shape and strides.

 We **can't** have a **number**and string(text) in the **same array.** It's either all numbers, all strings or other data types that we can use to build arrays.

 An array with **one row and one column** is a **one dimensional array.**

 We use the convention **np.array()** to craft an array.

 The word **axis**is singular and **axes**is plural.

 The most **common**array we are going to have is an **array of numbers.**