

4-Interactive Activity - Numpy

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How do you import the NumPy library?

How do you create a 1D array of numbers from 0 to 9?

How do you create a 3x3 array of all zeros?

How do you create a 3x3 array of all ones?

How do you generate an array of 10 random numbers between 0 and 1?

How do you generate an array of 5 random integers between 10 and 20?

How do you find the shape of an array?

How do you find the data type of an array?

How do you convert a list [1, 2, 3] into a NumPy array?

How do you create a 2x2 array with random values?

How do you add two arrays, `a` and `b`?

How do you subtract array `b` from array `a`?

How do you multiply two arrays, `a` and `b`?

How do you divide array `a` by array `b`?

How do you compute the dot product of two arrays `a` and `b`?

How do you find the maximum value in an array?

How do you compute the mean of an array?

How do you compute the minimum of an array?

How do you reshape a 1D array of 9 elements into a 3x3 matrix?

How do you concatenate two arrays, `a` and `b`?

How do you stack two arrays vertically?

How do you stack two arrays horizontally?

How do you transpose a 2D array?

1. How do you import the NumPy library?

```
import numpy as np
```

1. How do you create a 1D array of numbers from 0 to 9?

```
np.arange(10)
```

1. How do you create a 3x3 array of all zeros?

```
np.zeros((3, 3))
```

1. How do you create a 3x3 array of all ones?

```
np.ones((3, 3))
```

1. How do you generate an array of 10 random numbers between 0 and 1?

```
np.random.rand(10)
```

1. How do you generate an array of 5 random integers between 10 and 20?

```
np.random.randint(10, 20, 5)
```

1. How do you find the shape of an array?

```
array.shape
```

1. How do you find the data type of an array?

```
array.dtype
```

1. How do you convert a list [1, 2, 3] into a NumPy array?

```
np.array([1, 2, 3])
```

1. How do you create a 2x2 array with random values?

```
np.random.rand(2, 2)
```

1. How do you add two arrays, `a` and `b`?

```
np.add(a, b)
```

1. How do you subtract array `b` from array `a`?

```
np.subtract(a, b)
```

1. How do you multiply two arrays, `a` and `b`?

```
np.multiply(a, b)
```

1. How do you divide array `a` by array `b`?

```
np.divide(a, b)
```

1. How do you compute the dot product of two arrays `a` and `b`?

```
np.dot(a, b)
```

1. How do you find the maximum value in an array?

```
array.max()
```

1. How do you compute the mean of an array?

```
array.mean()
```

1. How do you compute the minimum of an array?

```
np.min(array)
```

1. How do you reshape a 1D array of 9 elements into a 3x3 matrix?

```
array.reshape(3, 3)
```

1. How do you concatenate two arrays, `a` and `b`?

```
np.concatenate((a, b))
```

1. How do you stack two arrays vertically?

```
np.vstack((a, b))
```

1. How do you stack two arrays horizontally?

```
np.hstack((a, b))
```

1. How do you transpose a 2D array?

2. `python array.T`