## CREATIVE INSTITUTE DATA SCIENCE

#### **NUMPY Random**

Numpy can be used to generate a Random sequence for various data types like float, int, array, etc

```
from numpy import random
randint(int)

1.

from numpy import random
a = random randint(10)
b= random randint(50)
print(a)
print(b)

from numpy import random
a = rd.randint(10)
b = rd.randint(50)
print(b)
print(a)
print(b)
```

### Numpy random to generate a list of float values

```
from numpy import random
a = random.rand()
b= random.rand(5)
print(a)
print(b)

generate 2-dimensional arrays

from numpy import random
a = random.randint(10, size=(3,3))
b= random.randint(50, size=(5,5))
print(a)
print(b)
```

# CREATIVE INSTITUTE DATA SCIENCE

#### **NUMPY Random**

```
generate 3-dimensional arrays
from numpy import random
a = random.randint(10, size=(3,2,1))
print(a)

from numpy import random
a = random.randint(10, size=(3,2,2))
print(a)

generate 3-dimensional array of float value

from numpy import random
a = random.rand(3,2)
b = random.rand(5,2)
print(a)
print(b)
```

Numpy random generation uses a function as a **choice()**, which allows the computer to choose a random choice from the given sequence of values.

```
from numpy import random
a = random.choice([8, 10, 16])
b= random.choice([80, 100, 160,1100])
print(a)
print(b)
```

## CREATIVE INSTITUTE DATA SCIENCE

### **NUMPY Random**

we can generate **multi-dimensional arrays** using the choice() function by giving the size of the dimension.

```
from numpy import random
a = random.choice([8, 10, 16], size=(3, 2))
b= random.choice([80, 100, 160, 1100], size=(5, 2))
print(a)
print(b)
```