4_numpy_creation_functions

May 16, 2019

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In [ ]: import numpy as np
```

arange

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In [ ]: np.arange(30) # range: List range  , integer 0 29
```

```
In [ ]: np.arange(0, 5, 0.5) # floating point
```

```
In [ ]: np.arange(30).reshape(5,6)
```

ones, zeros & empty

```
In [ ]: np.zeros(shape=(10,), dtype=np.int8) # 10 - zero vector
```

```
In [ ]: np.zeros((2,5)) # 2 by 5 - zero matrix
```

```
In [ ]: np.ones(shape=(10,), dtype=np.int8)
```

```
In [ ]: np.ones((2,5))
```

```
In [ ]: np.empty(shape=(10,), dtype=np.int8)
```

```
In [ ]: np.empty((3,5))
```

```
In [ ]: test_matrix = np.arange(30).reshape(5,6)
        np.zeros_like(test_matrix)
```

eye, identity & digonal

```
In [ ]: np.identity(n=3, dtype=np.int8)
```

```
In [ ]: np.identity(5)
```

```
In [ ]: np.eye(N=3, M=5, dtype=np.int8)
```

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In [ ]: np.eye(3)
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In [ ]: np.eye(3,5,k=2)
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In [ ]: matrix = np.arange(9).reshape(3,3)
        np.diag(matrix)

In [ ]: np.diag(matrix, k=1)

In [ ]: np.random.uniform(0,1,10).reshape(2,5)

In [ ]: np.random.normal(0,1,10).reshape(2,5)

In [ ]:
```