numpy_practice_11

```
>>
import numpy as np

>>
a=np.array([[1,1,1],[1,1,1],[1,1,1]])
print(a)

[[1 1 1]
 [1 1 1]
 [1 1 1]]

>>
b=np.ones(5) # creates ones matrix , means all one
print(b)

[1. 1. 1. 1. 1.]

>>
b.dtype # default data type of ones function is float

dtype('float64')

>>
b=np.ones((3,4)) # creates a 3x4 ones matix
print(b)

[[1. 1. 1. 1.]
 [1. 1. 1. 1.]
 [1. 1. 1. 1.]]

>>
b=np.ones((4,5),dtype=int) # changing the data type of ones matrix
print(b)

[[1 1 1 1 1]
 [1 1 1 1 1]
 [1 1 1 1 1]
 [1 1 1 1 1]]

>>
z=np.zeros((2,5),dtype=int) # creating zeros matrix, means all zero
print(z)

[[0 0 0 0 0]
 [0 0 0 0 0]]
```

```
>>
z=np.zeros((2,5),dtype=bool) # changinfg the data type to boolean. zero means
false
print(z)

[[False False False False False]
 [False False False False False]]

>>
z=np.zeros((2,5),dtype=str) # zeroes are casting onto string. which will be
empty string
print(z)

[['' '' '' '' '']
 ['' '' '' '' '']]

>>
b=np.ones((4,5),dtype=str) # ones are type casted into string data type
print(b)

[['1' '1' '1' '1' '1']
 ['1' '1' '1' '1' '1']
 ['1' '1' '1' '1' '1']
 ['1' '1' '1' '1' '1']]

>>
name='a'
zero=''
print(bool(name)) # boolean of a non-empty string is true
print(bool(zero)) # boolean of a empty string is false

True
False

>>
a=np.empty((3,3)) # creating empty array(3x3). but in numpy empty array
doesnot remains empty. it includes random values
print(a)

[[0.00000000e+000 0.00000000e+000 0.00000000e+000]
 [0.00000000e+000 0.00000000e+000 6.42285340e-321]
 [6.23057348e-307 1.42419530e-306 0.00000000e+000]]
```