

Is the name 'np' not defined due to a NameError?

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A NameError is a type of error that occurs when a variable or object is not recognized or defined in a programming language. In the context of the name 'np', if this name is not recognized or defined, it will result in a NameError. This means that the name 'np' is not currently defined and cannot be used in the program. This error typically occurs when the name is misspelled or when the variable or object has not been declared or imported properly. Therefore, a NameError regarding the name 'np' indicates that the name is not currently defined and needs to be addressed in order for the program to run successfully.

Fix: NameError name 'np' is not defined

One of the most common errors you may encounter when using Python is:

NameError: name 'np' is not defined

This error occurs when you import the python library , but fail to give it the alias of np when importing it.

The following examples illustrate how this problem occurs and how to fix it.

Example 1: import numpy

Suppose you import the NumPy library using the following code:

```
import numpy
```

If you then attempt to define a numpy array of values,

you'll get the following error:

```
#define numpy array
```

```
x = np.random.normal(loc=0, scale=1, size=20)
```

```
#attempt to print values in array
```

```
print(x)
```

Traceback (most recent call last):

```
----> 1 x = np.random.normal(loc=0, scale=1, size=20)
```

```
2 print(x)
```

NameError: name 'np' is not defined

To fix this error, you need provide the alias of np when importing NumPy:

```
import numpy as np
```

```
#define numpy array
```

```
x = np.random.normal(loc=0, scale=1, size=20)
```

```
#print values in array
```

```
print(x)
```

Example 2: from numpy import *

Suppose you import all functions from the NumPy library using the following code:

```
from numpy import *
```

If you then attempt to define a numpy array of values, you'll get the following error:

```
#define numpy array  
x = np.random.normal(loc=0, scale=1, size=20)  
  
#attempt to print values in array  
print(x)
```

Traceback (most recent call last):

```
----> 1 x = np.random.normal(loc=0, scale=1, size=20)  
2 print(x)
```

NameError: name 'np' is not defined

To fix this error, you need provide the alias of np when importing NumPy:

```
import numpy as np
```

```
#define numpy array  
x = np.random.normal(loc=0, scale=1, size=20)  
  
#print values in array  
print(x)
```

Alternatively, you can choose to not use the np syntax at all:

```
import numpy  
  
#define numpy array  
x = numpy.random.normal(loc=0, scale=1, size=20)  
  
#print values in array  
print(x)
```

Note: The syntax "import numpy as np" is commonly used because it offers a more concise way to use NumPy functions. Instead of typing "numpy" each time, you can simply type in "np" which is quicker and easier to read.