PYTHON – KEYWORD ARGUMENT

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1. Keyword arguments

- ✓ Keyword arguments are arguments that recognize the parameters by the name of the parameters.
- ✓ We can use an identifier (name of the variable) to provide values to the function parameters.
- ✓ While providing the value, name of the parameter should be match otherwise we will below error.

    - o **TypeError: …. got an unexpected keyword argument 'variable name'**

- ✓ This concept we can apply one,
    - o Functions
    - o Constructor
    - o Instance method

Program Name   Function with keyword arguments concept
demo1.py

```
def shopping(prod):
        print("Product is :" ,  prod)

shopping(prod = "iPhone 14 plus")
```

output

Product is: iPhone 14 plus

Program Name   Function with keyword arguments concept: **Error**
demo2.py

```
def shopping(prod):
        print("Product is :" , prod)

shopping(a = "iPhone 14 plus")
```

output

TypeError: shopping() got an unexpected keyword argument 'a'

Make a note

✓ Here keyword argument name is **prod**, but we are using different name, though we will get Error.

Program Name	Constructor with keyword arguments concept demo3.py

	``python
	class Amazon:
	    def __init__(self, prod):
	        self.prod = prod
	        print("Product is:", self.prod)
	
	amz = Amazon(prod = "iPhone 14 plus")
	``

output	Product is: iPhone 14 plus

Program Name	Constructor with keyword arguments concept: **Error** demo4.py

	``python
	class Amazon:
	    def __init__(self, prod):
	        self.prod = prod
	        print("Product is:", self.prod)
	
	amz = Amazon(a = "iPhone 14 plus")
	``

output	**TypeError**: __init__() got an unexpected keyword argument 'a'

Make a note

- ✓ Here keyword argument name is **prod**, but we are using different name, though we will get Error.

Program Name	Instance method with keyword arguments concept
	demo5.py
	
	class Amazon:
	     def shopping(self, **prod**):
	          print("Product is:", **prod**)
	
	amz = Amazon()
	amz.shopping(**prod** = "iPhone 14 plus")

output	 Product is: iPhone 14 plus

Program Name	Instance method with keyword arguments concept**: Error**
	demo6.py
	
	class Amazon:
	     def shopping(self, **prod**):
	          print("Product is:", **prod**)
	
	amz = Amazon()
	amz.shopping(**a** = "iPhone 14 plus")

output	**TypeError**: shopping() got an unexpected keyword argument 'a'

Make a note

- ✓ Here keyword argument name is **prod**, but we are using different name, though we will get Error.

Program Name	Series constructor with keyword arguments concept demo7.py

```python
import pandas as pd

m = [36, 67, 88, 99]

s = pd.Series(m, name = "Daniel marks")

print(s)
```

output

```
0    36
1    67
2    88
3    99
Name: Daniel marks, dtype: int64
```

Program Name	Series constructor with keyword arguments concept: **Error** demo8.py
	import pandas as pd
	m = [36, 67, 88, 99]
	s = pd.Series(m, **a** = "Daniel marks")
	print(s)
output	
	TypeError: __init__() got an unexpected keyword argument 'a'

Make a note

- ✓ **name** is predefined keyword argument in **Series** class constructor.
- ✓ So, we should use **name** keyword argument only.
- ✓ Reason behind the error is, Here keyword argument name is **name**, but we are using different name, though we will get Error.