

Formatted Printing

- Suppose you have 2 variables and you want to divide them using string formatting then

```
a = 22
b = 7
C = a / b
```

- Using these variable we'll format a string how lets see it

```
print( 'division of {0} and {1} is {2}'.format(a,b,c))
```

{ } - this is called a **placeholder** , values written inside them are index

- If you don't give index number in-between { } it'll still work
- If you give different indices in-between { } it'll work but you should provide only the indices you are having and not any other index value
- In short you can give place holders in any order

```
>>> a = 22
>>> b = 7
>>> c = a / b
>>> print('Division of {} and {} is {}'.format(a,b,c))
Division of 22 and 7 is 3.142857142857143
>>> print('Division of {0} and {1} is {2}'.format(a,b,c))
Division of 22 and 7 is 3.142857142857143
>>> print('Division of {2} and {1} is {0}'.format(a,b,c))
Division of 3.142857142857143 and 7 is 22
>>> print('Division of {2} and {1} is {0}'.format(c, b, a))
Division of 22 and 7 is 3.142857142857143
>>>
```

- We can mention width between strings using formatting like this

```
>>>
>>> print('Division of {0:10} and {1:15} is {2:2.4}'.format(a,b,c))
Division of      22 and           7 is 3.143
>>>
```

- We can mention the alignment as well such as < , > , ^ etc

```
>>> print('Division of {0:<10} and {1:^15} is {2:2.4}'.format(a,b,c))
Division of 22      and      7      is 3.143
>>>
```

- We can also do Conversions using formatted printing

```
>>> print('Division of {0:<10} and {1:^15} is {2:E}'.format(a,b,c))
Division of 22      and      7      is 3.142857E+00
>>> print('Division of {0:<10} and {1:^15} is {2:F}'.format(a,b,c))
Division of 22      and      7      is 3.142857
>>>
```

- Some more flag and conversation type are

```
flag - :< :> :^ := :+ :- : : , :_
Conversion - :b :c :d :e :E :f :F :g :G :o :x :X :n :%
```

Formatted Printing (New python style)

- Here in new style we can write the variable name in Formatting directly in the placeholder along with values.
- Before the start of string we should write **f** to declare that the string is formatted string

```
>>> a = 22
>>> b = 7
>>> c = a / b
>>>
>>> print(f'Division of {a:10} and {b:^15} is {c:2.4f}')
Division of      22 and      7      is 3.1429
>>>
```