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Creating Tuples

```
emp=()
print(type(emp))
```

```
<class 'tuple'>
```

```
print(emp)
```

```
()
```

```
city="Pune",
type(city)
```

```
tuple
```

```
city=("Pune", "Bangalore", "Chennai")
city
```

```
('Pune', 'Bangalore', 'Chennai')
```

```
list1=[1,2,3,4]
tuple1=(1,2,3,4)
list1.append(5)
print(list1)
```

```
[1, 2, 3, 4, 5]
```

List is mutable. Tuple is immutable. Once tuple is set, it cannot be changed. List uses square brackets. tuple uses parantheses.

```
print(city)
```

```
('Pune', 'Bangalore', 'Chennai')
```

```
city[1]
```

```
'Bangalore'
```

```
city[-1]
```

```
'Chennai'
```

concatenation

```
print(city)
```

```
('Pune', 'Bangalore', 'Chennai')
```

```
num=1,2,3,4
```

```
print(city+num)
```

```
('Pune', 'Bangalore', 'Chennai', 1, 2, 3, 4)
```

Nesting

```
nest=(city,num)
```

```
print(nest)
```

```
(('Pune', 'Bangalore', 'Chennai'), (1, 2, 3, 4))
```

Repetition

```
rep=("Python",)*5
rep
```

```
('Python', 'Python', 'Python', 'Python', 'Python')
```

```
rep=("Python",)
print(rep*10)
```

```
('Python', 'Python', 'Python', 'Python', 'Python', 'Python', 'Python', 'Python', 'Python', 'Python')
```

Slicing

```
num
```

```
(1, 2, 3, 4)
```

```
num[1:]
```

```
(2, 3, 4)
```

```
num[::-1]
```

```
(4, 3, 2, 1)
```

Unpacking

```
tuple("ShriSabhariesh")
```

```
('S', 'h', 'r', 'i', 'S', 'a', 'b', 'h', 'a', 'r', 'i', 'e', 's', 'h')
```

```
a,b,c,d=num
print(a,b,c,d)
```

```
1 2 3 4
```

```
a, *b, c=num
print(a,b,c)
```

```
1 [2, 3] 4
```

Deleting a Tuple

```
tuple1=(1,2,3,4)
print(tuple1)
```

```
(1, 2, 3, 4)
```

```
del tuple1
print(tuple1)
```

```
---------------------------------------------------------------------------
NameError                                 Traceback (most recent call last)
<ipython-input-28-8c91080a054a> in <cell line: 1>()
----> 1 del tuple1
      2 print(tuple1)

NameError: name 'tuple1' is not defined
```

Next steps: Explain error

Built in Function

```
num1=(3,5,2,2,2,2,6,5,8)
num1.count(2)
```

```
4
```

```
sum(num1)
```

```
35
```

```
len(num1)
```

```
9
```

```
max(num1)
```

```
8
```

```
min(num1)
```

```
2
```

Converting list to tuple

```
lst=[1,2,3,4]
print(type(lst))
```

```
<class 'list'>
```

```
tpl=tuple(lst)
print(tpl)
```

```
(1, 2, 3, 4)
```

```
type(tpl)
```

```
tuple
```

Nesting tuples in a list

```
lst=[(1,2,3),(4,5,6)]
print(lst)
```

```
[(1, 2, 3), (4, 5, 6)]
```

```
lst.append(("tuple","inside","list"))
print(lst)
```

```
[(1, 2, 3), (4, 5, 6), ('tuple', 'inside', 'list'), ('tuple', 'inside', 'list')]
```

Nesting lists within tuples

```
tpl=(['a','b','c'],['d','e','f'])
```

```
print(tpl)
```

```
(['a', 'b', 'c'], ['d', 'e', 'f'])
```

```
tpl[0].append('z')
```

```
print(tpl)
```

```
(['a', 'b', 'c', 'z'], ['d', 'e', 'f'])
```

Start coding or generate with AI.