```
# tuples print and use

a = (1,2,3)
b = ("vivek","data-analytics",1)
print(a)
print(b)
```

```
(1, 2, 3)
('vivek', 'data-analytics', 1)
```

```
# nested tuples

a = (1,2,3)
b = a,("vivek","data-analytics",1)
print(a)
print(b)
```

```
(1, 2, 3)
((1, 2, 3), ('vivek', 'data-analytics', 1))
```

```
# accessing a tuple

a = (1,2,3,4,5)
print(a)
print(a[0:])
print(a[0:4])
print(a[:10])
```

```
(1, 2, 3, 4, 5)
(1, 2, 3, 4, 5)
(1, 2, 3, 4)
(1, 2, 3, 4, 5)
```

```
# tuple operators concatenation operator + sign to join two tuples

a = (1,2,3,4,5)
b = (6,7,8,9,10)
c = a + b
print(c)
```

```
(1, 2, 3, 4, 5, 6, 7, 8, 9, 10)
```

```
# replicating tuple means repeating the tuple

a = (1,2,3,4,5)
print(a*5)
```

```
(1, 2, 3, 4, 5, 1, 2, 3, 4, 5, 1, 2, 3, 4, 5, 1, 2, 3, 4, 5, 1, 2, 3, 4, 5)
```

```
# slicing the tuple

a = (1,2,3,4,5)
print(a)
print(a[0:])
print(a[0:4])
print(a[:10])
print(a[-4:-2])
```

```
(1, 2, 3, 4, 5)
(1, 2, 3, 4, 5)
(1, 2, 3, 4)
(1, 2, 3, 4, 5)
(2, 3)
```

```
# update an element in tuple

a = (1,2,3,4,5)
a[5] = 6
print(a)  # give an error cause tuple is immutable
```

```
----------------------------------------------------------------------
TypeError                                 Traceback (most recent call last)
<ipython-input-10-9d967b451d2e> in <cell line: 4>()
      2
      3 a = (1,2,3,4,5)
----> 4 a[5] = 6
      5 print(a)  # give an error cause tuple is immutable

TypeError: 'tuple' object does not support item assignment
```

```python
# tuple from existing

a = (1,2,3,4,5)
b = (6,7,8,9,10)
c = a + b
print(c)
```

```
(1, 2, 3, 4, 5, 6, 7, 8, 9, 10)
```

```python
# deleting an element in tuple

a = (1,2,3,4,5)
del(a)
print(a)
```

```
----------------------------------------------------------------------
NameError                                 Traceback (most recent call last)
<ipython-input-12-c0edb6ebfbe4> in <cell line: 5>()
      3 a = (1,2,3,4,5)
      4 del(a)
----> 5 print(a)

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

```python
# some functions on the tuple

a = (1,2,3,4,5)
print(min(a))
print(max(a))
print(len(a))
```

```
1
5
5
```