

Assignment - 16 Tuple

1. Write a python script to store multiple items in a single variable (Items are “Java” ,“Python” , “SQL” , “C”) using tuple.

```
tuple=("java","Python","SQL","C")  
print(tuple,type(tuple))
```

Output:-

```
('java', 'Python', 'SQL', 'C') <class 'tuple'>
```

2. Write a python program to store only one item using tuple.

```
t=tuple([10,20,30,40,50])  
print(t,type(t))
```

Output:-

```
(10, 20, 30, 40, 50) <class 'tuple'>
```

3. Write a python program to reverse the tuple.

```
t=tuple([10,20,30,40,50])  
print(t[::-1])
```

Output:-

```
(50, 40, 30, 20, 10)
```

4. Write a python program to swap two tuples in Python.

```
t1=(10,20,30,40,50)  
t2=(60,70,80,90)  
t3=t2  
t2=t1  
t1=t3  
print(t1,t2)
```

Output:-

```
(60, 70, 80, 90) (10, 20, 30, 40, 50)
```

5. Write a python program to check if all items in the tuple are the same.

```
tuple=(1,1,1,1,1,1)
for item in tuple:
    if item==tuple[0]:
        pass
    else:
        print("All items are not same.")
        break
else:
    print("All items are same.")
```

Output:-

All items are same.

6. Write a python program to divide the tuple into four variables.

```
tuple1=(100, 200, 300, 400)
```

```
tuple1=(100, 200, 300, 400)
```

```
a,b,c,d=tuple1
```

```
print(a,b,c,d,sep=" ")
```

Output:-

100 200 300 400

7. Write a python program to copy elements 4 and 5 from the following tuple into a new tuple. tuple1=(1,2,3,4,5,6)

```
tuple1=(1,2,3,4,5,6)
```

```
tuple2=tuple(tuple1[3:5])
```

```
print(tuple2,type(tuple2))
```

Output:-

(4, 5) <class 'tuple'>

8. Write a python program to Sort a tuple of tuples by the second item.

tuple1 = (('a', 21),('b', 37),('c', 11), ('d',29))

```
from operator import itemgetter
```

```
tuple1 = (('a', 21), ('b', 37), ('c', 11), ('d', 29))
```

```
sorted_tuple = sorted(tuple1, key=itemgetter(1))
```

```
print("Original tuple:", tuple1)
```

```
print("Sorted tuple:", sorted_tuple)
```

Output:-

```
Original tuple: (('a', 21), ('b', 37), ('c', 11), ('d', 29))
```

```
Sorted tuple: [('c', 11), ('a', 21), ('d', 29), ('b', 37)]
```

9. Write a python program to print the value 20 from given nested tuple

tuple1 = ("Python", [10, 20, 30], (2, 4, 16))

```
tuple1=("Python",[10,20,30],(2,4,16))
```

```
print(tuple1[1][1])
```

Output:-

```
20
```

10. Write a python program to change the first item (22) of a list within the following tuple to 222. tuple1 = (11, [22, 33], 44, 55)

```
tuple1=(11,[22, 33],44,55)
```

```
tuple1[1][0]=222
```

```
print(tuple1)
```

Output:-

```
(11, [222, 33], 44, 55)
```