Tuples in python

Tuples

Tuples are ordered collection of data items. They store multiple items in a single variable. Tuple item separated by commas and enclosed within round brackets.

Tuple are unchangeable we cannot after them after condition.

Example:

```
tup=(1,2,3,4)
tup1=(1,)
#for single element used comma
print(tup)
```

Example:

```
tup=(1,2,3,4)
tup1=(1,)
#for single element used comma
print(tup)
#tup[1]=19
#error occur because tuple are unchangeable
print(tup[3])
print(type(tup))
```

Tuple indexing

Each item \ element in a tuple has its own unique index. This index can be used to access any particular item from the list. The first item has in [0], second item has index [1], third has index [2] and so on.

Example:

```
country=("Pakistan","India","Iran")
print(country[0])
print(country[1])
```

```
print(country[2])
```

Positive Indexing:

As we have seen that tuple items have index as such we can access items using these indexes.

Example:

```
country=("Pakistan","India","Iran")
print(country[0])
print(country[1])
print(country[2])
```

Negative Indexing:

Similar to positive indexing negative indexing is also used to access items, but from the end of the tuple. The tuple item has index [-1], second last index [-2], third last item has index [-3] and so on.

Example:

```
subjects=("Operating","DBMS","AI","Math")
print(subjects[-1])
print(subjects[-2])
print(subjects[-3])
print(subjects[-4])
```

Check for item:

We can check if a given item is present in the tuple. This is done using the if keyword.

Example:

```
subjects=("Operating","DBMS","AI","Math")
print(subjects[-1])
print(subjects[-2])
print(subjects[-3])
print(subjects[-4])

if "Operating" in subjects:
    print("Yes operating present in subjects")
```

Range of index:

You can print a range of tuple items by specifying where do you want to start, where do you want to end and if you want to skip elements in between the range.

Example:

```
tup=[1,2,3,4,5]
tup2=tup[1:4]
print(tup2)
```

Source Code

```
# tup=(1,2,3,4)
# tup1=(1,)
# #for single element used comma
# print(tup)
# #tup[1]=19
# #error occur because tuple are unchangeable
# print(tup[3])
# print(type(tup))

# country=("Pakistan","India","Iran")
# print(country[0])
# print(country[1])
# print(country[2])

subjects=("Operating","DBMS","AI","Math")
print(subjects[-1])
```

```python
print(subjects[-2])
print(subjects[-3])
print(subjects[-4])

if "Operating" in subjects:
    print("Yes operating present in subjects")

tup=[1,2,3,4,5]
tup2=tup[1:4]
print(tup2)
```

Thank You