

```
In [1]: my_tuple2 = (1, 2, 3, 'SYBTECH')
        for x in my_tuple2:
            print(x)
        print(my_tuple2)
        print(my_tuple2[0])
        print(my_tuple2[:])
        print(my_tuple2[3][4])
```

```
1
2
3
SYBTECH
(1, 2, 3, 'SYBTECH')
1
(1, 2, 3, 'SYBTECH')
E
```

```
In [3]: my_tuple = (1, 2, 3)
        my_tuple = my_tuple + (4, 5, 6)
        print(my_tuple)
        my_tuple = (1, 2, 3, ['hindi', 'python'
        ])
        my_tuple[3][0] = 'english'
        print(my_tuple)
        print(my_tuple.count(2))
        print(my_tuple.index(['english', 'python']))
```

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

```
In [4]: my_dict = {}
        print(my_dict)
        my_dict = {1: 'Python', 2: 'Java'}
        print(my_dict)
```

```
()
{1: 'Python', 2: 'Java'}
```

```
In [6]: my_dict = {'First': 'Python', 'Second': 'Java'}
        print(my_dict)
        my_dict['Second'] = 'C++'
        print(my_dict)
        my_dict['Third'] = 'Ruby'
        print(my_dict)
```

```
{'First': 'Python', 'Second': 'Java'}
{'First': 'Python', 'Second': 'C++'}
{'First': 'Python', 'Second': 'C++', 'Third': 'Ruby'}
```

```
In [8]: Dict = {'Name': ['Riya', 'Pranav', 'Vaishali'], 1: [1, 2, 3, 4]}
        Dict.values()
```

```
Out[8]: dict_values([['Riya', 'Pranav', 'Vaishali'], [1, 2, 3, 4]])
```

```
In [9]: my_dict = {'First': 'Python', 'Second':
        'Java', 'Third': 'Ruby'}
        a=my_dict.pop('Third')
        print('Value:', a)
        print('Dictionary:', my_dict)
        b= my_dict.popitem()
        print('Key, value pair:', b)
        print('Dictionary', my_dict)
        my_dict.clear()
        print('n', my_dict)
```

```
Value: Ruby
Dictionary: {'First': 'Python', 'Second': 'Java'}
Key, value pair: ('Second', 'Java')
Dictionary {'First': 'Python'}
n {}
```

```
In [ ]:
```

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### Python Programming Assignment - 5

Problem statement: Different operations on dictionary and tuple data structure.

Aim: Write a python program to create, append and remove etc. operation on Dictionary and Tuple.

Objectives: To learn and implement Dictionary and Tuple data structure.

#### Theory:

Different operations performed on:

##### • Dictionary

- `clear()` - Remove all items from dictionary
- `copy()` - Returns a shallow copy of dictionary
- `get()` - Returns the value for given key
- `items()` - Returns the list with all dictionary keys with values.
- `pop()` - Returns and removes the element with given key
- `pop item()` - Returns and removes the key-value pair from dictionary.
- `update()` - updates the dictionary with the elements from another dictionary.



• Tuples:

- index() - And in the tuple and returns the index of the given value where its available
- count() - Returns the frequency of occurrence of a specified value.
- len() - Returns length of the tuple or size of tuple.

Platform: Windows - Python Editor (Jupyter)

Conclusion: Studied python dictionary and Tuple data structure.

FAQ's

Ans 1) output: [1, 3, 5, 7, 9]

Ans 2) output: ()

Ans 3)

Lists

Dictionary

- |   |   |
|---|---|
| • List is a collection of index value pairs.                          | • Dictionary is a hashed structure of key and value pairs.  |
| • List is created by placing elements in [] separated by commas ", ". | • Dictionary is created by placing elements in {} as "key": "value", each key value pair is separated by commas ", ". |
| • The indices of lists are integers starting from 0.                  | • The keys of dictionary can be of any data type.   |
| • The elements are accessed via indices.                              | • The elements are accessed via key-values.   |
| • order of elements are maintained                                    | • No-guarantee for maintaining order.   |



Ans 4) Python has tuple assignment feature which enables one to assign more than one variable at a time. In packing, we place value into a new tuple while in unpacking we extract those values back into variables.