



Python for Data Science - 2305CS303

Lab - 6

Roll No. : 111

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1. WAP to iterate over a set.

```
In [1]: s1 = {10, 20, 30, 40, 50}
        for i in s1:
            print(i)
```

```
50
20
40
10
30
```

2. WAP to convert set into list, string and tuple.

```
In [2]: s2 = {1, 2, 3, 4}

        l1 = list(s2)
        str1 = ''.join(str(i) for i in s2)
        t1 = tuple(s2)

        print(l1)
        print(str1)
        print(t1)
```

```
[1, 2, 3, 4]
1234
(1, 2, 3, 4)
```

3. WAP to check if two lists have at-least one element common.

```
In [3]: l1 = [1, 2, 3, 4]
        l2 = [5, 6, 3, 7]
        l3 = False

        for i in l1:
```

```
    if i in l2:
        l3 = True
        break

print(l3)
```

True

4. WAP to remove duplicates from list.

```
In [4]: l1 = [1, 2, 2, 3, 4, 4, 5]
        l2 = []
        for i in l1:
            if i not in l2:
                l2.append(i)
        print(l2)
```

[1, 2, 3, 4, 5]

5. WAP to find unique words in the given string.

```
In [5]: s1 = "this is a test this is simple"
        l1 = s1.split()
        l2 = []
        for word in l1:
            if word not in l2:
                l2.append(word)
        print(l2)
```

['this', 'is', 'a', 'test', 'simple']

6. WAP to iterate over a dictionary.

```
In [6]: d1 = {'a': 1, 'b': 2, 'c': 3}
        for key in d1:
            print(key, d1[key])
```

a 1
b 2
c 3

7. WAP to find the sum of all items (values) in a dictionary given by user. (Assume: values are numeric).

```
In [8]: d1 = {}
        n = int(input("Enter number of items: "))
        for i in range(n):
            key = input("Enter key: ")
            value = int(input("Enter value: "))
            d1[key] = value

        total = 0
        for v in d1.values():
            total += v

        print("Sum:", total)
```

Sum: 60

8. WAP to sort dictionary by key or value.

```
In [9]: d1 = {'b': 3, 'a': 1, 'c': 2}

sorted_by_key = dict(sorted(d1.items()))
sorted_by_value = dict(sorted(d1.items(), key=lambda x: x[1]))

print("Sorted by key:", sorted_by_key)
print("Sorted by value:", sorted_by_value)
```

Sorted by key: {'a': 1, 'b': 3, 'c': 2}

Sorted by value: {'a': 1, 'c': 2, 'b': 3}

9. WAP to handle missing keys in dictionaries.

- Example : Given, dict1 = {'a': 5, 'c': 8, 'e': 2}

- if you look for key = 'd', the message given should be 'Key Not Found', otherwise print the value of 'd' in dict1.

```
In [10]: dict1 = {'a': 5, 'c': 8, 'e': 2}
key = 'd'

if key in dict1:
    print(dict1[key])
else:
    print("Key Not Found")
```

Key Not Found

```
In [ ]:
```