SETS IN PYTHON

BEGINNER'S CODE GUIDE

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Set in python

unordered|unchangeable|unindexed|duplicates forbidden

unordered since no index.

List and Dictionary not alowed since it is changable

nesting set i.e set under set is not allowed.

```
a = {"abc", 1, 2.3, True, (1, 23)}
```

```
print(a)
```

```
{1, 2.3, (1, 23), 'abc'}
```

```
print(type(a))
```

```
<class 'set'>
```

True & 1 is considered as same value

since 1 & true is considered same value and duplicate not allowed so print only 1 in output

```
a = {1, True}

a
```

```
{1}
```

count number of elment using len() length funtion

```
b = {"abc", 2, 4.5}

len(b)
```

```
3
```

set() constructor

```
# alternate way to create SET

myset = set(["a", "b", "c"])

print(myset)
```

```
{'b', 'a', 'c'}
```

Adding element to the set

```
myset.add("d")

print(myset)
```

```
{'a', 'd', 'b', 'c'}
```

Creating Empty Set

blank { } will create dictionary. so use set() to create empty set

```
ed = {}  # empty dictionary


print(ed)
print(type(ed))
```

```
{}
<class 'dict'>
```

```
es = set() # empty set


print(es)
print(type(es))
```

```
set()
<class 'set'>
```

access set values since there is no index

```
a = {"a", "ab", 1}

for x in a:
    print(x)
```

```
1
a
ab
```

check if item or value is present in set

```
print("ab" in a)

print("cb" in a)
```

```
True
False
```

Add / remove item in SET

```
a.add("xy")


a
```

```
{1, 'a', 'ab', 'xy'}
```

update( )

```
b = {1,2}

a.update(b)
```

```
print(a)
print(b)
```

```
{1, 'xy', 2, 'ab', 'a'}
{1, 2}
```

remove( )

```
a.remove('ab') # remove element


a
```

```
{1, 2, 'a', 'xy'}
```

pop() will remove item randomly in set

```
a.pop()


a
```

```
{2, 'a', 'xy'}
```

clear() will remove all item and return empty set

```
a.clear()
```

```
a
```

```
set()
```

del statement will delete SET

```
del a
```

Join two set

```
a = {1, 2, 3}
b = {4, 5, 6}

c = a.union(b)


c
```

```
{1, 2, 3, 4, 5, 6}
```

wap to find max and min value

```
x = {1, 2, 3, 4, 5, 6}

print(max(x))
print(min(x))
```

```
6
1
```

wap to get common value of two sets

```
a = {10, 20, 30}
b = {30, 40, 50}

print(a.intersection(b))
```

```
{30}
```

convert set to list and tuple

```
a = {10, 20, 30, 40, 50 }
```

```
b = list(a)

print(b)
print(type(b))
```

```
[50, 20, 40, 10, 30]
<class 'list'>
```

```
c = tuple(a)

print(c)
print(type(c))
```

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