

# Lecture 21

## Sets parts 2

### True and 1 are considered as same value

```
In [1]: a = {'animals', "ball", 25, 24, 3.6, 5.9, 1, 56, True}
print(a)
```

```
{1, 3.6, 5.9, 'ball', 'animals', 24, 25, 56}
```

```
In [2]: a = {'animals', "ball", 25, 24, 3.6, 5.9, 1, 56, True, 0, 23, False}
print(a)
```

```
{0, 1, 3.6, 5.9, 'ball', 'animals', 23, 24, 25, 56}
```

```
In [3]: a = {'animals', "ball", 25, 24, 3.6, 5.9, 56, True}
print(a)
```

```
{True, 3.6, 'ball', 5.9, 'animals', 24, 25, 56}
```

```
In [4]: a = {'animals', "ball", 25, 24, 3.6, 5.9, 1, 56, True, 23, False}
print(a)
```

```
{False, 1, 3.6, 5.9, 'ball', 'animals', 23, 24, 25, 56}
```

### Nested is not a property of the set

```
In [5]: a = {{11,12,13}, {4,5,6}}
print(a)
```

-----  
**TypeError**

Traceback (most recent call last)

Cell In[5], line 1

```
----> 1 a = {{11,12,13}, {4,5,6}}
      2 print(a)
```

**TypeError**: unhashable type: 'set'

### check if item is present in the set or not

```
In [6]: a = {"data", "swati", "python"}  
print("swati" in a)
```

True

```
In [9]: b = {"nishant", "ayush", "python", 2, 5, 95, 29, 5}  
print(29 in b)
```

True

## get the length of the set

```
In [11]: a = {"animals", "bat", "cat", 1, 85, 496, 5, 896, 59, 6596, 59, 6596496}  
print(len(a))
```

11

## Add items

**Once a set is created, you cannot change the items but you can add the new items**

```
In [12]: a = {"a1", "b1", "c1", 1, 2, 3}  
a.add("d1")  
print(a)
```

{1, 2, 3, 'c1', 'a1', 'b1', 'd1'}

## update method

```
In [13]: x = {"data", "python", "code"}  
y = {10, 20, 30, 40, 50, 60, 70}  
  
x.update(y)  
print(x)
```

{70, 40, 10, 'data', 50, 20, 'python', 'code', 60, 30}

## REMOVE ITEMS FROM THE SET

```
In [14]: n = {70,40,10,"code","data","science",45,5,523,2.3,5.9}
n.remove(40)
print(n)

{2.3, 5, 70, 'science', 5.9, 10, 523, 45, 'data', 'code'}
```

```
In [15]: n = {70,40,10,"code","data","science",45,5,523,2.3,5.9}
n.remove("code")
print(n)

{2.3, 5, 70, 'science', 40, 5.9, 10, 523, 45, 'data'}
```

```
In [16]: n = {70,40,10,"code","data","science",45,5,523,2.3,5.9}
n.remove(2.3)
print(n)

{5, 70, 'science', 40, 5.9, 10, 523, 45, 'data', 'code'}
```

## pop method

```
In [18]: a = {15,489,4,96,5,968,59,85985,85,895,9,5,9}
c = a.pop()
print(a)
print(c)

{85985, 4, 5, 968, 489, 9, 15, 85, 59, 895}
96
```

```
In [20]: x = {'code',"apple","swati",569,2,9,52,9,5,9,5,9}
y = x.pop()
print(y)
print(x)

2
{'swati', 5, 9, 52, 'apple', 569, 'code'}
```

```
In [21]: x = {'code',"apple","swati",569,2,9,52,9,5,9,5,9}
y = x.pop()
print(y)
print(x)

2
{'swati', 5, 9, 52, 'apple', 569, 'code'}
```

## clear method

```
In [22]: x = {'code', "apple", "swati", 569, 2, 9, 52, 9, 5, 9, 5, 9}

x.clear()
print(x)

set()
```

```
In [25]: x = {'code', "apple", "swati", 569, 2, 9, 52, 9, 5, 9, 5, 9}

del x

print(x)
```

-----  
**NameError** Traceback (most recent call last)

Cell In[25], line 5

```
1 x = {'code', "apple", "swati", 569, 2, 9, 52, 9, 5, 9, 5, 9}
3 del x
----> 5 print(x)
```

**NameError**: name 'x' is not defined

```
In [ ]:
```