python sets

sets are used to store multiple items in a single variabe a set is a collection which is unordered unchangeable and unindexed.

creating set

In [1]:
```
set={"tomatoe","brinjal","potatoe"}
print(set)
```

```
{'brinjal', 'tomatoe', 'potatoe'}
```

duplicates not allowed

In [4]:
```
set={"tomatoe","brinjal","potatoe","tomatoe"}
print(set)
```

```
{'brinjal', 'tomatoe', 'potatoe'}
```

length of the set

In [5]:
```
set={"tomatoe","brinjal","potatoe","apple"}
print(len(set))
```

```
4
```

set items- data types

In [7]:
```
s1={1,2,3,4,5,6}
s2={"tomatoe","brinjal","potatoe","apple"}
s3={True,False,True}
print(type(s1))
print(type(s2))
print(s3)
```

```
<class 'set'>
<class 'set'>
{False, True}
```

In [17]:
```
set={"tomatoe","brinjal","potatoe","apple"}
for x in set:
    print(x)
```

```
brinjal
tomatoe
potatoe
apple
```

In [24]:
```
set={"tomatoe","brinjal","potatoe","apple"}
if "apple" in set:
    print("yes,'apple'is in the set")
if "banana" in set:
    print ("yes,'banana'is in the set")
else:
    print("no,'banana'in the set")
```

```
yes,'apple'is in the set
no,'banana'in the set
```

In [25]:
```
set={"tomatoe","brinjal","potatoe","apple"}
print("brinjal"in set)
print("banana"in set)
```

```
True
False
```

In [26]:
```
set={"tomatoe","brinjal","potatoe","apple"}
set.add("berry")
print(set)
```

```
{'tomatoe', 'apple', 'berry', 'potatoe', 'brinjal'}
```

In [28]:
```
s={"tomatoe","brinjal","potatoe","apple"}
t={1,2,3,4,5,6}
s.update(t)
print(s)
t.update(s)
print(t)
```

```
{1, 2, 3, 'tomatoe', 'apple', 4, 5, 6, 'potatoe', 'brinjal'}
{1, 2, 3, 4, 5, 6, 'tomatoe', 'apple', 'potatoe', 'brinjal'}
```

In [32]:
```
myset={"tomatoe","brinjal","potatoe"}
mylist=["apple","banana","cherry"]
myset.update(mylist)
print(myset)
```

```
{'tomatoe', 'apple', 'banana', 'potatoe', 'brinjal', 'cherry'}
```

In [34]:
```
s={"tomatoe","brinjal","potatoe","apple"}
s.remove("apple")
print(s)
s.discard("brinjal")
print(s)
```

```
{'brinjal', 'tomatoe', 'potatoe'}
{'tomatoe', 'potatoe'}
```

In [35]:
```
s={"tomatoe","brinjal","potatoe","apple"}
x=s.pop()
print(x)
print(s)
```

```
brinjal
{'tomatoe', 'potatoe', 'apple'}
```

In [36]:
```
s={"tomatoe","brinjal","potatoe","apple"}
s.clear()
print(s)
```

```
set()
```

In [39]:
```
s={"tomatoe","brinjal","potatoe","apple"}
for num in s:
    print(num)
```

```
brinjal
tomatoe
potatoe
apple
```

In [49]:
```
s1={1,2,3,4,5,6}
s2={"tomatoe","brinjal","potatoe","apple"}
s3= s1.union(s2)
print(s3)
s1.update(s2)
print(s1)
```

```
{1, 2, 3, 4, 5, 6, 'tomatoe', 'apple', 'potatoe', 'brinjal'}
{1, 2, 3, 4, 5, 6, 'tomatoe', 'apple', 'potatoe', 'brinjal'}
```

In [51]:
```
s={"tomatoe","brinjal","potatoe","apple"}
s.add("orange")
print(s)
x=s.copy()
print(s)
```

```
{'tomatoe', 'apple', 'potatoe', 'brinjal', 'orange'}
{'tomatoe', 'apple', 'potatoe', 'brinjal', 'orange'}
```

In [52]:
```
s={"ladies finger","brinjal","potatoe","apple"}
s2={"mangoe","cherry","banana","cucumber"}
k=s.difference(s2)
print(k)
```

```
{'brinjal', 'ladies finger', 'apple', 'potatoe'}
```

In [57]:
```
s={"ladies finger","brinjal","potatoe","apple"}
s2={"mangoe","cherry","banana","cucumber"}
k=s.difference_update(s2)
print(k)
s.pop()
print(s)
s2.remove("cucumber")
print(s2)
m=s.union(s2)
print(m)
```

```
None
{'ladies finger', 'apple', 'potatoe'}
```

```
{'banana', 'mangoe', 'cherry'}
{'apple', 'potatoe', 'banana', 'ladies finger', 'mangoe', 'cherry'}
```

In [ ]: