Set

Agenda

1. Set
2. for loop with set
3. Add, Remove, Delete, Clear operations
4. in keyword with set

Set

Set

- Set is **unordered** collection of unique elements.
- It doesn’t take duplicates.
- It is **mutable**, elements can be added or removed from the original set.
- The order of the elements are unpredictable.
- It can contain elements of different types.
- Elements are enclosed in curly braces { }.

```
Execute the code and observe the output:

set_1 = {'admin', 500, 'user', 500, 800}
print(set_1)
```

for loop with set

for loop with list

- Items in a set cannot be accessed using indexes since the items are unordered.
- We can loop through the set items only using a for loop.

```
Program:

set_1 = {'admin', 500, 'user', 800}
for item in set_1:
    print(item)
```

```
Output:

800
500
admin
user
```

Add, Remove, Delete, Clear operations

Add, Remove, Delete, Clear operations

```
Program:

set_1 = {'admin', 500, 'user', 800}
set_1.add('customer')
print(set_1)  #after adding customer
set_1.update('A','B','C')
print(set_1)  #after adding the above elements
set_1.remove('admin')
print(set_1)  #after removing admin
```

Add, Remove, Delete, Clear operations

```
Program continued..

set_1.clear()
print(set_1)  #printing empty set
del set_1  #deleting the set
```

```
Output:

{800, 'customer', 'admin', 'user', 500}
{800, 'B', 'customer', 500, 'C', 'admin', 'user', 'A'}
{800, 'B', 'customer', 500, 'C', 'user', 'A'}
set()
```

in keyword with set

in keyword with set

To determine if a specified item is present in the set use the in keyword:

```
Program:

set_1 = {'admin', 500, 'user', 800}
if 800 in set_1:
    print("Present")
else:
    print("Not present")
```

```
Output:

Present
```

Thank you