data structures ----> data storing containers

1.lists --->mutable-->changeable-->can be deleted elemnets 2.tuple ---->immutable 3.distionaries--- mutable 4.sets --->mutable 5.Strings----> immuatble

1.lists: data structures ----> data storing containers 1.lists --->mutable-->changeable-->can be deleted elemnets 2.tuple ---->immutable 3.distionaries--- mutable 4.sets --->mutable 5.Strings----> immuatble

1.lists: lst=[1,'str',3] --->0,1,2

#how to access elements

#slicing can be done using indexing print(lst[0]) print(lst[0:2]) print(lst[-1]) print(lst[-3:-1])

```
lst=[1,'str',3] # --->0,1,2
#how to access elements
#slicing can be done using indexing
lst[0] = 2
print(lst[1])
print(lst[0:2])
print(lst[-2])
print(lst[-3:-1])
```

```
str
[2, 'str']
str
[2, 'str']
```

```
Tuple=(1,'str',3) # --->0,1,2
#how to access elements
#slicing can be done using indexing
print(Tuple[0])
print(Tuple[0:2])
print(Tuple[-1])
print(Tuple[-3:-1])
```

```
1
(1, 'str')
3
(1, 'str')
```

```
Tuple=(1,'str',3) # --->0,1,2
#how to access elements
#slicing can be done using indexing
Tuple[1] = 2
print(Tuple[0])
print(Tuple[0:2])
```

```
print(Tuple[-1])
print(Tuple[-3:-1])
```

```
---------------------------------------------------------------------------
-----
TypeError                                 Traceback (most recent call
last)
Cell In[7], line 4
      1 Tuple=(1,'str',3) # --->0,1,2
      2 #how to access elements
      3 #slicing can be done using indexing
----> 4 Tuple[1] = 2
      5 print(Tuple[0])
      6 print(Tuple[0:2])

TypeError: 'tuple' object does not support item assignment
```

```
string= '1str3' # --->0,1,2
#how to access elements
#slicing can be done using indexing

print(string[0])
print(string[0:2])
print(string[-1])
print(string[-3:-1])
```

```
1
1s
3
tr
```

```
string= '1str3' # --->0,1,2
#how to access elements
#slicing can be done using indexing
string[1] = 2
print(string[0])
print(string[0:2])
print(string[-1])
print(string[-3:-1])
```

```
---------------------------------------------------------------------------
-----
TypeError                                 Traceback (most recent call
last)
Cell In[10], line 4
      1 string= '1str3' # --->0,1,2
      2 #how to access elements
      3 #slicing can be done using indexing
----> 4 string[1] = 2
      5 print(string[0])
      6 print(string[0:2])
```

```
TypeError: 'str' object does not support item assignment
```

```
dic= {0:"Anwar",1:"2",2: "Miss Saba"} # --->0,1,2
#how to access elements
#slicing can not be done by using indexing
for i in dic:                         # for loop use for iterating the
elements.
    print(dic[i])
```

```
Anwar
2
Miss Saba
```

```
dic= {0:"Anwar",11:"2",2: "Miss Saba"} # --->0,1,2  The value of key
in dictionary
#how to access elements
#slicing can not be done by using indexing
for i in dic:                         # for loop use for iterating the
elements.
    print(i,dic[i])
```

```
0 Anwar
11 2
2 Miss Saba
```

```
Set = {0,"Anwar",1,2,2, "Miss Saba","karachi"} # --->0,1,2
#how to access elements,Set is immutable
#slicing can not be perform while doing operation of Set in Python.
for i in Set:                         # for loop use for iterating the
elements.
    print(i)
```

```
0
1
2
karachi
Miss Saba
Anwar
```

```
Set = {0,"Anwar",1,2,2, "Miss Saba","karachi"} # --->0,1,2
#how to access elements,Set is immutable
#slicing can not be perform while doing operation of Set in Python.
for i in Set:                         # for loop use for iterating the
elements.
    print(i)
    Set[0]=10   # because Set is immutable
    print(i)
```

```
0
```

```
---------------------------------------------------------------------------
-----
TypeError                                 Traceback (most recent call
last)
Cell In[20], line 6
      4 for i in Set:                         # for loop use for
iterating the elements.
      5     print(i)
----> 6     Set[0]=10
      7     print(i)

TypeError: 'set' object does not support item assignment
```