```
# Dictionary
# A dictionary is a collection which is unordered, changeable and indexed.
# In Python dictionaries are written with curly brackets, and they have keys and values.
# No Index
# mutable in nature {}

mydict = {"name":"Max", "age":28, "city":"New York"}
len(mydict)
```

```
3
```

```
mydict = {"total":0}
for x in "heyuser":
    mydict["total"] += 1
print(mydict)
```

```
{'total': 7}
```

```
mydict = {"total":0}
for x in "heyuser":
    mydict[x]=1
print(mydict)
```

```
{'total': 0, 'h': 1, 'e': 1, 'y': 1, 'u': 1, 's': 1, 'r': 1}
```

```
mydict={"total6":5}
if "total" not in mydict:
    mydict["total"] = 1
else:
    mydict["total"] = mydict["total"] + 1
print(mydict)
```

```
{'total6': 5, 'total': 1}
```

```
mydict={"total":5}
if "total" in mydict:
    mydict["total"] = mydict["total"] + 1
else:
    mydict["total"] = 1
print(mydict)
```

```
mydict={"total":0}
count=0
for x in "total":
  if x % 3 == 0 and x % 7 == 0:
    count+=1
    mydict["total"]=count
print(mydict)
```

```
---------------------------------------------------------------------------
TypeError                                 Traceback (most recent call last)
<ipython-input-14-fc38bc1b55b6> in <cell line: 3>()
      2 count=0
      3 for x in "total":
----> 4   if x % 3 == 0 and x % 7 == 0:
      5     count+=1
      6   else:

TypeError: not all arguments converted during string formatting
```

```
dict1={"total":0}
for x in "hey hello tushar aei":
    if (x=="a" or x=="e" or x=="i" or x=="o" or x=="u"):
        dict1["total"]=dict1["total"]+1
print(dict1)
```

```
{'total': 8}
```

```
x="hey juj hey htg hey hello hello".split(" ")
for i in x:
  print(i)
```

```
hey
juj
hey
htg
hey
hello
hello
```

```
x={"total":0}
for i in "hey juj hey htg hey hello hello":
  if(i=="h"):
    x["total"]=x["total"]+1
print(x)
```

```
{'total': 6}
```

```
# set
# collection of element
# unique element
# unordered
# mutable but set element are immutable
# no index

myset={"a","b","c","c"}
print(myset)
myset.add(658)
print(myset)

myset.remove("c")
print(myset)
```

```
{'c', 'b', 'a'}
{'c', 658, 'b', 'a'}
{658, 'b', 'a'}
```