

DICTIONARY

PROGRAMS

#Create and print a dictionary:

```
dict = {  
    "MANGO": "YELLOW",  
    "APPLE": "RED",  
    "GUAVAVA": "GREEN"  
}  
print(dict)
```

#Change the value of a key

```
dict = {  
    "MANGO": "YELLOW", "APPLE": "RED",  
    "GUAVAVA": "GREEN"  
}  
dict["MANGO"] = "GREEN"  
print(dict)
```

#to check a dictionary is empty or not

```
dict = {}  
if not bool(dict):  
    print("Dictionary is empty")
```

`#make a dictionary using constructor`

```
dict = dict("MANGO": "YELLOW", "APPLE": "RED",  
           "GUAVAVA": "GREEN")  
print(dict)
```

`#Adding an item to the dictionary`

```
dict = {  
    "MANGO": "YELLOW",  
    "APPLE": "RED",  
    "GUAVAVA": "GREEN"  
}  
dict["BANANA"] = "YELLOW"  
print(dict)
```

`#Removing a dictionary item`

```
dict = {  
    "MANGO": "YELLOW", "APPLE": "RED",  
    "GUAVAVA": "GREEN"  
}  
del(dict["MANGO"])  
print(dict)
```

`#concatenate dictionaries to create a new one`

```
dic1={1:'AMIT', 2:'VISHAL'}
```

```
dic2={3:'MOHAK'}
```

```
dic3 = {}
```

```
for d in (dic1, dic2): dic3.update(d)
```

```
print(dic3)
```

`#to check if a given key already exists in a dictionary`

```
dict={1:'AMIT', 2:'VISHAL'}
```

```
x=int(input('enter the key to be checked in dictionary'))
```

```
if x in dict:
```

```
    print('Key is present in the dictionary')
```

```
else:
```

```
    print('Key is not present in the dictionary')
```

`#to iterate over dictionary`

```
dict ={ "MANGO": "YELLOW", "APPLE": "RED",
```

```
    "GUAVAVA": "GREEN"
```

```
}
```

```
for dict_key, dict_value in dict.items():
```

```
    print(dict_key,'->',dict_value)
```

#to create a dictionary where the keys are numbers #between 1 to 10 and the values are square of keys

```
dict=dict()
for x in range(1,11):
    dict[x]=x**2
print(dict)
```

#to sum all the items in a dictionary

```
dict = {'data1':1,'data2':2,'data3':3}
r=sum(dict.values())
print(r)
```

#to map two lists into a dictionary

```
keys = ["banana", "apple"]
values = ["yellow","red"]
dict = dict(zip(keys, values))
print(dict)
```

#to sort a dictionary by key

```
dict ={ "MANGO": "YELLOW", "APPLE": "RED", "GUAVAVA":
"GREEN"}
for key in sorted(dict):
    print("%s: %s" % (key, dict[key]))
```

#to create a dictionary from a string with frequency of
#letters

```
str1 = 'computer science'
```

```
dict = {}
```

```
for letter in str1:
```

```
    dict[letter] = dict.get(letter, 0) + 1
```

```
print(dict)
```

#to generate a dictionary that contains numbers
#(between 1 and n) in the form (x,x*x)

```
n=int(input("Enter a number:"))
```

```
d={x:x*x for x in range(1,n+1)}
```

```
print(d)
```